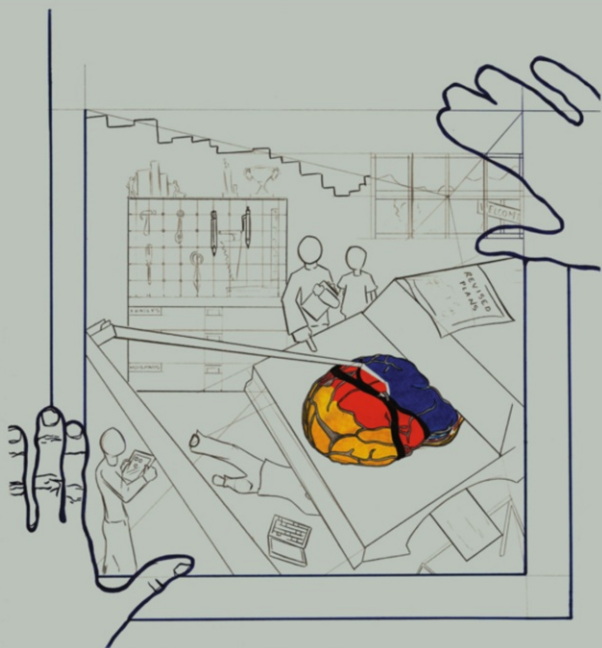


Vygotsky and Literacy Research

A Methodological Framework

Peter Smagorinsky



SensePublishers

PRACTICE OF RESEARCH METHOD

Volume 2

Series Editor

Wolff-Michael Roth, University of Victoria, Canada

Scope

Research methods and research methodology are at the heart of the human endeavors that produce knowledge. Research methods and research methodology are central aspects of the distinction between folk knowledge and the disciplined way in which disciplinary forms of knowledge are produced. However, in the teaching of research methods and methodology, there traditionally has been an abyss between descriptions of how to do research, descriptions of research practices, and the actual lived research praxis.

The purpose of this series is to encourage the publication of books that take a very practical and pragmatic approach to research methods. For any action in research, there are potentially many different alternative ways of how to go about enacting it. Experienced practitioners bring to these decisions a sort of scientific feel for the game that allows them to do what they do all the while expressing expertise. To transmit such a feel for the game requires teaching methods that are more like those in highlevel sports or the arts. Teaching occurs not through first principles and general precepts but by means of practical suggestions in actual cases. The teacher of method thereby looks more like a coach. This series aims at publishing contributions that teach methods much in the way a coach would tell an athlete what to do next. That is, the books in this series aim at praxis of method, that is, teaching the feel of the game of social science research.

Vygotsky and Literacy Research

A Methodological Framework

Peter Smagorinsky

The University of Georgia, Athens, USA



SENSE PUBLISHERS
ROTTERDAM/BOSTON/TAIPEI

A C.I.P. record for this book is available from the Library of Congress.

ISBN: 978-94-6091-694-6 (paperback)

ISBN: 978-94-6091-695-3 (hardback)

ISBN: 978-94-6091-696-0 (e-book)

Published by: Sense Publishers,
P.O. Box 21858,
3001 AW Rotterdam,
The Netherlands
www.sensepublishers.com

Printed on acid-free paper

All Rights Reserved © 2011 Sense Publishers

No part of this work may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without written permission from the Publisher, with the exception of any material supplied specifically for the purpose of being entered and executed on a computer system, for exclusive use by the purchaser of the work.

DEDICATION

This book is dedicated to four scholars whose work and model of professionalism, humility, and generosity have profoundly influenced my career: Mike Cole, Shirley Heath, Vera John-Steiner, and Jim Wertsch. I can only hope that I meet their standards in representing the issues I explore in these chapters.

CONTENTS

Acknowledgements	ix
Foreword	xi
Author's Preface	xxxiii
PART 1: THEORETICAL AND TOPICAL FRAMEWORK	
1. The Challenges of Claiming a Vygotskian Perspective	3
2. Key Terms and Constructs in Adopting a Vygotskian Perspective	19
3. The Social Construction of Data	49
4. The Culture of School and How it Shapes Literacy Learning	75
PART 2: THE FRAMEWORK FOR LITERACY RESEARCH	
5. The Background for Current Literacy Studies	99
6. Reading as Culturally Mediated, Mediating, and Meaningful Action	123
7. Writing as Tool and Sign	161
8. Nonverbal Tool and Sign Systems in a Cultural Theory of Literacy	191
PART 3: METHODOLOGY AND METHOD SECTIONS	
9. Thinking and Speech and Verbal Data	223
10. The Method Section in Social Science Research Reports	245
Author's Afterword	261
References	263
Glossary	287
Index	301

ACKNOWLEDGEMENTS

During the semester in which I did the primary writing on this book, I taught a Vygotsky doctoral seminar at The University of Georgia. Thanks to Joanna Anglin, Liaquat Ali Channa, Gabriela del Villar, Karen Graf, Lindy Johnson, Hyun Hee (Sharon) Kim, Rachel Monette, Katie Wester Neal, and Darren Rhym and for their contributions during class and their feedback on the chapters as I wrote them. Thanks also to Wolff-Michael Roth for his editorial work in making this book possible, and his feedback in areas where my work needed it. Some sections were also discussed on the xmca network, and the feedback of colleagues in that forum helped to sharpen the ideas. Given that this book represents one point, albeit an important one for me, in my thinking about the issues I explore, I view this effort as a work in progress that undoubtedly will invite critique and, I hope, further refinement of my interpretation of Vygotsky's career project as it pertains to literacy research.

FOREWORD

REALIZING VYGOTSKY'S PROGRAM

In 2007, my colleague Yew Jin Lee and I published a paper in *Review of Educational Research* entitled “‘Vygotsky’s Neglected Legacy’: Cultural-Historical Activity Theory” (Roth & Lee, 2007). The title suggests that the *legacy* of this great Russian scholar, the founder of a concrete human psychology based on fundamental Marxist principles, has been forgotten. However, after having published a number of articles and chapters that bring together concrete data representing human activities *in real time* and Vygotsky’s (1986) work on the relationship between thought and speech, I have come to realize that much of Western (Anglo-Saxon) scholarship referring to this work has fundamentally misread it. Whereas Vygotsky wanted to develop a Marxist psychology, what remains of his work – as a result of frequently poor and ideologically shaped translations into English – is but a simulacrum that lacks the substance and proper qualities of the work of this great scholar. In this book, Peter Smagorinsky has set as his goal to set at least some of the record straight. To set us up for the importance of a Vygotskian approach to the study of literacy generally and to the study of thinking and speaking more specifically, let us take a look at a concrete instant from a lecture in a third-year university physics course on thermodynamics. Looking at concrete cases and deriving from them general principles of psychology is at the very heart of the Vygotskian approach, exemplified, for example, in the manner in which he approaches the psychology of art (Vygotsky, 1971). In the transcript fragment, the professor is in the process of developing a different way of looking at the phenomenon currently under consideration: the cooling of a substance by repeated application and removal of a magnetic field (Wikipedia features an easy to understand entry under the keyword “magnetic refrigeration”). This is already the second time that the professor is giving it a try, for at the end of the preceding lecture he concluded by saying that there was something wrong with his explanation without being able to say why this is so. The fragment comes from the part of this second time where the professor has drawn a diagram and now illustrates what happens when the magnetic field is turned off and on – represented by vertical and horizontal lines between the two curves (Figure 1), one representing the absence of the magnetic field ($B = 0$) and the other one the presence of a magnetic field ($B \neq 0$). The fragment – the transcription notation is explained in the appendix of this *Foreword* – picks up when the professor has already drawn two steps, the first one involving the turning on the magnetic field in which the substance is emerged, while holding the temperature constant (vertical line), which leads to a drop in entropy; and the other one turning the magnetic field off, while holding the entropy S constant, which leads to a drop in temperature T . After presenting the fragment and describing the various hand-arm movements visible in Figure 1, I suggest

FOREWORD

that this entire episode, seen through a Vygotskian lens, provides evidence for the relationship between speaking and thinking.

Following the statement that the temperature is lowered, the professor steps back, and gazes at the graph (Figure 1a). A pause unfolds. He turns slightly, brings up his right arm and hand toward the left part of the graph (Figure 1b) and slowly utters a drawn out “and,” while his hand moves to the right and toward a point on the $B = 0$ graph (Figure 1c). The hand rests at that location for a brief while he produces the interjection “uh,” and then another pause develops. Until now, his hand has rested in approximately the same position. There is a 2.25-s pause during which he first moves his right hand slightly toward the right, then, while producing a rasping sound “khm,” the hand moves near the left end of the $B = 0$ line (Figure 1e), moves back to the right some 10 cm to the left of the intersection between this and the horizontal line he had previously drawn (Figure 1f). The hand moves rapidly to the left (Figure 1g) and then, as he places the chalk to the chalkboard, the professor produces a thin line parallel to the preceding one he has drawn and beginning at the point where the $B = 0$ line intersects with the ordinate axes (S) (Figure 1h, line 07). In reading the following transcription, readers should note the long pauses, the duplications, the interjections, and so on that make the real-time production of the lecture. As a result of these features, the lecture does not appear like a simple dumping of his memory content, which is the expression one can get from traditional representations of communication. Rather, this transcription, together with the video, exhibits the performative dimensions of thinking and speaking.

Fragment 1

```

1 .....12.....13.....14
  a          | b          c          | c d          e |
    (1.00)    | (0.32)    a:nd uh:: (0.44) kh:m (0.25)
  [-----] [-----] [-----] [-] [-----] [---
  [forward   [l>R     [hold    [reposition
                                   [R>l     [l>R

2 .....15.....16.....17
    f          g |          h |          i          |
    (1.00)      | (1.00)    and then i i said it by
  [-----] [-----] [-----] [-----] [-----]
  l>R        [R>l
                [draws line l>R   [hand moves to B = 0
                                   [elbow hand, as if
beginning to draw

3 .....18.....19
    j          |          k |
  the tIME you get to HE:a (0.65)
  [-----] [-----] [---
                [steps left and back
  
```

```

4 .....20.....21
      |         |
      (1.00)   (0.48) when you put
      -----

5 .....22.....
      l   m   |   n
      it ina magnetic fIE:ld and that we=r kinda putn
      -----] [-----] [-----]
              [lift off      [holding

6 •23.....24.....
      |         |         g
      by the time you get to hERe when you put it in
      -----]
      holding

7 .....25.....26.....27
      n         |   o         p|         |
      the magnetic fIEld it goes to> thE:a      (0.88)
      -----] [-----] [-----]
      [drawing down      [retract      [holding pattern
  
```

The professor then begins to speak again, rapidly articulating his words: “and then I, I said it by the time you get to here” (lines 2–3). During this time, his right hand moves from the end of the thin line to the $B = 0$ graph where it rests for more than a second (Figure 1i→j). The elbow and hand are oriented as if they were beginning to draw. Just as the last few syllables appear, the body begins to move backward now making available more of the graph to see (Figure 1k). There is a 2.13-second pause while the professor gazes at the display. He then utters, in a much faster than normal succession of syllables something that we can hear to be about putting a sample (“it”) into a magnetic field and how this action would be exhibited in the graphical display: “when you put it in a magnetic field and that we’re kind a putting, by the time you get to here, when you put it in the magnetic field, it goes like there” (lines 4–7). We can hear and see this as a kind of blending whereby generic scientists or other agents (“you”) come to be collated with an inanimate physical entity or its representation in a graph. During the initial part of this utterance, the hand is resting, merely twisting slightly to the left. The hand then lifts off to return, as if in a searching move, to a spot on the chalkboard somewhat closer to the intersection between $B = 0$ and the first horizontal line (Figures 1l→n). Just as he talks for the third time about “putting it” into the magnetic field, he produces a vertical line from the $B = 0$ to the $B \neq 0$ curve (Figure 1n→o); and he then steps back orienting his gaze at the display as if contemplating it from afar.

FOREWORD

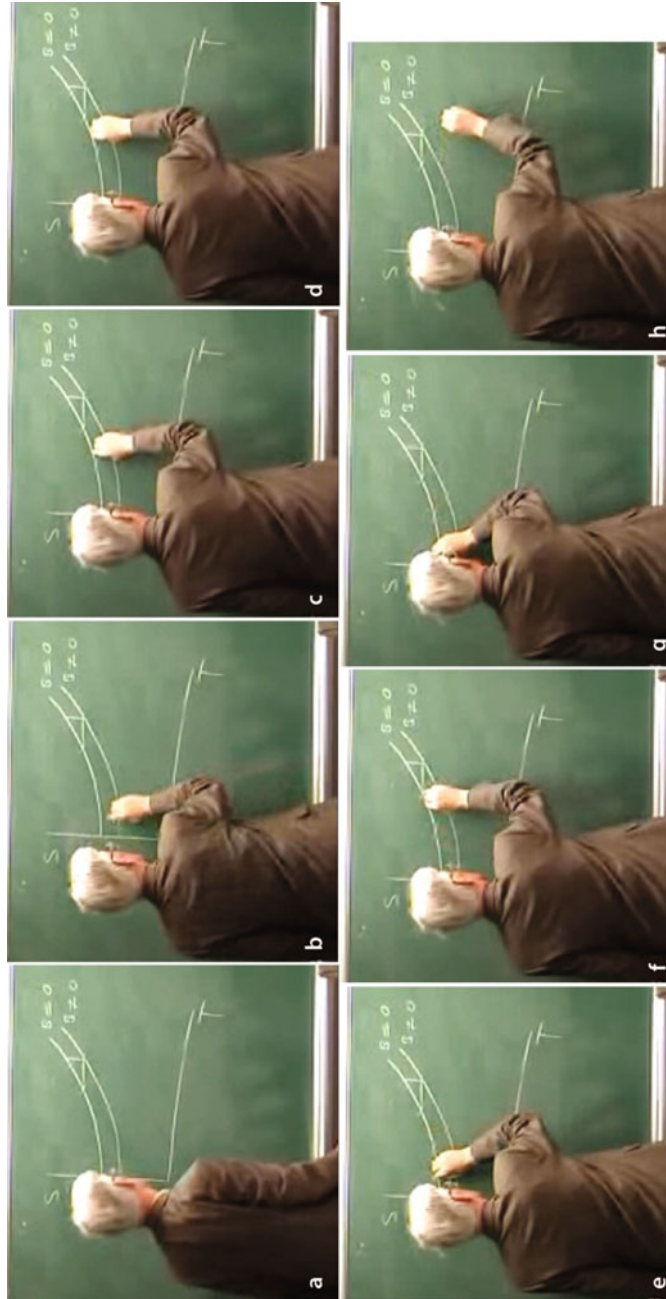




Figure 1. Hand-arm movements during the production of an explanation of refrigeration by sequential magnetization and demagnetization.

FOREWORD

In this episode, we do not see an idea all of a sudden appear. Rather, there is a slow unfolding. But this unfolding movement is slow, marked by pauses, hesitations, and interruptions. The hand movements – Figure 1a→b, b→c, c→d, d→e, e→f, f→g – are not direct but rather appear to give structure to the perceptual field. The resulting structure is then recorded in the final movement (Figure 1g→h) when the chalk is placed at and drawn across from the intersection of the ordinate with the $B = 0$ line horizontally to the right.

This line is the result of preceding events: it has emerged from the movements that have been produced before. If it had already existed as the intended movement, then there would not have been a need to do all this moving around and about. We see that the endpoint is a vertical line of the structure $\{S_1, B = 0, T\} \rightarrow \{S_1, B \neq 0, T\}$. The hand, however, moves to different places on the $B = 0$ line, from a lower to a higher temperature. It thereby enacts a search that is about the precise placement, that is, at which at which temperature T this process is to occur. The first possible starting point is marked while uttering “and then I, I said by the time you get to here” (lines 2–3). The professor then moves backward, as if he wanted to get a better look. He articulates the experimental process of putting the sample in the magnetic field, at which point the hand lifts off the chalkboard (Figure 1a), moves to a new place (Figure 1a→b), and then draws the line. Verbally, the description is repeated once the hand is at the new place and the vertical movement then coincides with the verbal articulation of “magnetic field.” This is precisely the process iconically signified by the hand movement and denoted by the line drawn. Although the two signifiers have the same structure, they do refer to two different physical realities: two different states of the system under question. Most importantly, from an experimental point of view, how does the system get from the endpoint of the preceding process $\{S_1, B = 0, T_1\}$ to the beginning point of the subsequent process $\{S_2, B = 0, T_2\}$ with $S_2 < S_1$ and $T_2 < T_1$? The answer to this question is crucial, as the lowering of the temperature is precisely at the heart of the entire phenomenon under discussion: cooling by means of adiabatic demagnetization. In the diagram, the non-intersection of the two processes means that another process would have had to occurred. But this process does not appear in the verbal description.

Why did the professor place the chalk to the left of where he ultimately drew the line? Why did he draw the thin horizontal line when he did not subsequently use its endpoint in the way he would subsequently? Why, if it did not matter where the line meets up with the $B = 0$ line, did he not move upward from the intersection of thin line with $B \neq 0$? When he ultimately does the correct representation of the process – some 20 minutes later and after abandoning the present attempt – he actually moves in step-like fashion from the top right to the bottom left of the diagram between the now-corrected curves that intersected at the origin. It is obvious that the professor is not simply dumping the contents of his memory in front of his students; what we see and hear is not a simple externalization of mental structures into the environment from where it can be picked

up by the students. If we were to work with a constructivist approach where there are mental frameworks and conceptions in mind, then we would have to assume processes and means that degenerate the original thought during the reading-out process so that what the audience hears is somehow flawed and faulty. But there are different ways of thinking about and studying such phenomena. I provide this lecture fragment precisely because it is an ideal case for studying the relation between thinking and speaking in the manner that Vygotsky (1986) suggested investigating such phenomena. This concrete case of thinking and speaking, full of the “mumbles, stumbles, malapropisms, tics, seizures, psychotic symptoms, egregious stupidity strokes of genius, and the like” (Rorty, 1989, p. 14) that characterize the real-time production of communication *constitutes precisely the phenomenon that we need to describe and theorize*. Such an “account of linguistic communication dispenses with the picture of language as a third thing intervening between self and reality, and of different languages as barriers between persons and culture” (p. 14). Vygotsky (1927/1997) takes the same position suggesting that what “we want to know [is] the *content* and not the *language* in which it is expressed. In physics we have freed ourselves from language in order to study the content. We must do the same in psychology” (p. 327). This approach erases the distinction between language and the world all the while recognizing the differences within this unity. This leads him to search for “a *theory of the unity, but not identity* of the mental and the physical” (p. 290). In the following section, I briefly sketch the direction in which such an analysis would go.

A VYGOTSKIAN PERSPECTIVE ON THOUGHT AND LANGUAGE

Psychological functions] must be explained not on the basis of internal organic connections (regulation), but in external terms, on the basis of the fact that man controls the activity of his brain from without through stimuli. (Vygotsky, 2005, p. 1023)

Much of the literature concerned with the speaking act present it purely in intentional terms. Thus, a person is said to have an idea in the head and uses speech, perhaps gesture, to present this idea to the outside. If this were the case, then we would not understand the real-time performance of the professor in the preceding section, which contains elements of disfluency, conversationally long pauses, additional nonrepresentational gestures, (rasping) sounds (e.g., “khm”) and interjections, gazes across the entire inscription produced on the chalkboard, and so on. This disfluent, real-time production is especially astonishing given that (a) he has prepared lecture notes containing the material that he is presenting here, (b) he has already drawn the figure before and talked about it, and (c) he has previously concluded the preceding lecture saying that there is something, “if anything,” wrong with the graph and associated conclusions.

FOREWORD

Moreover, he specifically stated that he wants to show them a way that will assist them in understanding – only to realize that there is something wrong with what he has developed so far. Especially interesting are situations such as the one preceding the lines 1–2, where there are hand movements that have no apparent representational functions because they are reversed and superseded by other hand-arm movements. These movements, however, do not have to be seen as disfluency or as errors, because the very fact that they are produced, they have an effect of structuring the perceptual field that opens itself to the eyes. In the very production, the speaker perceives that the movement is not the one that will allow the unfolding (thought) process to proceed. This is precisely what cognitive scientists proposed while analyzing players of the game Tetris, who were moving objects faster in response to the unfolding game context than would be possible if they had processed the information available to them on the computer monitor, interpreted it, and used the result of the interpretation to mobilize subsequent actions. These are *epistemic* actions, which serve to learn about the environment; they are in contrast with *pragmatic* actions, which serve to get things done. That is, actions or, more generally, movements of the body – including the movements of such disparate things as the vocal cords and ideas – and things in the world constitute a form of thinking even in the case when the person has no intention to move in a particular way, that is, does not yet know what the movement will yield. This, then, would be consistent with the introductory quote to this section, in which Vygotsky states that the external stimuli are tools humans use to control their brain activity. The body as a whole moves and relative to it the hands and arms; in the words articulated, sonorous productions concretize ephemeral and undeveloped ideational possibilities. These concretizations shape the setting and, together with it, constitute the external stimuli that Vygotsky is writing about as stimuli that govern brain activity. This is precisely what we can distill from the account that James Watson provides of the instant when he and Francis Crick discovered the DNA structure. They moved about paper representations of the structures of the four bases involved. These external movements of shapes allowed the two to see what they later formulated as an idea: the double helix structure of DNA. In the same way we have to see the activity of the professor. Rather than thinking of him as engaging in a memory dump, we may see him as realizing and unfolding a rather indistinct and undeveloped thought. Both Vygotsky (1986) and Maurice Merleau-Ponty (1945) suggest just that: communicating in real time and the thinking it articulates are two developing processes themselves related by a process that is in development. That is, new structures, signs, emerge from movements that cannot have specific goals because that which is learned in the process is unknown.

Vygotsky (1986) is concerned with understanding and theorizing “the process of verbal thinking from the first dim stirring of a thought to its formulation” (p. 217). He proposes a framework subsequently confirmed in Soviet

psychological studies. Thought and word are one-sided manifestations of a higher unit. Speaking and thinking form a unit and their relation is a process, a continual, to-and-fro movement from one manifestation to the other. This process itself undergoes change such that it “may be regarded as development in the functional sense. Thought is not merely expressed in words; it comes into existence through them” (p. 218). Vygotsky expands, “thought undergoes many changes as it turns into speech. It does not merely find expression in speech; it finds its reality and form” (p. 219). In the process, thought “moves, grows and develops, fulfills a function, solves a problem” (p. 218). Each of the two processes has its own law of development, the inner semantic aspects, on the one hand, and the outer, phonetic on the other. Thus, “the structure of speech does not simply mirror the structure of thought; that is why words cannot be put on by thought like a ready-made garment” (p. 219). Simultaneously, the “flow of thought is not accompanied by a simultaneous unfolding of speech. The two processes are not identical, and there is no rigid correspondence between the units of thought and speech” (p. 249).

Many find thinking such a relation difficult – it is fundamentally a dialectical relation. Thinking and speaking simply are one-sided manifestations of a higher-order unit much like the wave and particle aspects are manifestations of the higher-order unit of light. Even though these different manifestations may appear to contradict each other, they are both the same in that they reflect the unity as a whole and are not the same. Vygotsky (1986) theorizes such phenomena as expressing a unity rather than identity. Most importantly, “thought is not the superior authority in this process. Thought is not begotten by thought; it is engendered by motivation, i.e., by our desires and needs, our interests and emotions” (p. 252). To him, the unit is “verbal thought” the development of which he summarizes in the following way:

Verbal thought appeared as a complex, dynamic entity, and the relation of thought and word within it as a movement through a series of planes . . . from the motive that engenders a thought to the shaping of the thought, first in inner speech, then in meanings of words, and finally in words. It would be a mistake, however, to imagine that this is the only road from thought to word. The development may stop at any point in its complicated course: an infinite variety of movement to and fro, of ways still unknown to us, is possible. (pp. 251–252).

The to-ing and fro-ing that may occur is precisely what we observe in the fragment of the lecture I present above. It begins with the declared motive of providing students with an additional perspective on the phenomenon of magnetic cooling, which he intends to help them in understanding. This motive engenders thought, which, in articulation, develops itself from an undifferentiated seed into a mature expression.

FOREWORD

We can see from the quotation that Vygotsky almost entirely focuses on speech. But human communication does not simply occur by means of speech. An initial expansion of the Vygotskian framework had been proposed in psycholinguistics, where hand gestures are integrated with speech into one psychological unit. In subsequent work, we have expanded this fundamental unit of communication to include any modality of expression, including body movements other than the hand, body position, prosody, and perceptual aspects of the ground. In a chapter entitled “The body as expression, and speech,” Merleau-Ponty (1945) suggests that it is through the whole body that I both express thought and comprehend the thought of others. “The sense of the gesture thus ‘understood’ is not behind it, it confounds itself with the structure of the world that the gesture designs and that I take up on my own account, it spreads itself over the gesture” (pp. 216–217). In the same way as Vygotsky, Merleau-Ponty speaks of an inner relation that relates thought and word, and he rejects as implausible the outer relation that would exist if speech were merely a signifier of thought. But the philosopher goes beyond the psychologist in taking the body in its entirety as constituting an expression rather than the sound-word alone. “If speech presupposed thought, if talking were first of all a matter of joining the object through a intention of knowledge or through a representation, we could not understand why thought tends towards expression as towards its completion” (p. 206). More importantly, the author notes that even the “thinking subject himself is in a kind of ignorance of his thoughts so long as he has not formulated them for himself, or even spoken and written them” (p. 206).

The thought concerning the different processes come into being through the externalizing expression, and, as such, becomes a possible subject of revision as the now objectified thought comes to be subjectified again. It is through the expression that we both estrange a thought and then make it our own: “The movement of being consists, on the one hand, in the becoming an other than itself, and thus becoming its own immanent content; on the other hand, it takes back this unfolding or this existence of it, that is, it makes itself a *moment* and simplifies itself in something determinate” (Hegel, 1979, p. 51). That is, Vygotsky is realizing a program outlined by the German philosopher that consciousness develops by externalizing thought, realizing itself in a one-sided, determinate moment – the word – and taking itself back. In the externalization, thought becomes other than itself – i.e., becomes a word, something concrete and therefore determinate. But in the form of the word, consciousness simplifies itself but can do so only in a simplified form, as something other than itself, as a moment. What Vygotsky adds to the idealist philosopher is the aspect of real material life, the emotions and motivations that are at the origin – and therefore are the drivers – of thought.

In the case of our professor, we do not know whether a movement is an *intended* gesture. The intention for a particular gesture itself emerges from the movements. Thus, the movement from right to left (Figure 1d→e) and left to

right (Figure 1e→f) seem to be “searching” for placement of a line. They are epistemic movements, movements to learn from. They are not yet signs: specific signifier or signified do not yet exist – even though there may be an vague notion that some yet-to-be-determined signifier may exist to stand for a process that is articulating itself. But they constitute material and therefore objective manifestations (content) of thought, which thought can take back – in a process of subjectification – and thereby changes itself. Some movements observable just prior to this fragment anticipate subsequent drawing, a movement in the same direction leaving a trace, and other movements can be seen as iconic gestures over and against a line. Some of these are movements toward the emerging signifier, and some movements may become signifiers whereas others, such as the drawing of a line, become signifieds. A line is signifier and signified simultaneously, when a gesture seen over and about it provides an iconic image.

From the perspective articulated here, we can therefore understand the lecture as an unfolding event of communicating and thinking, which are not ready-made but develop in real time. Thus, any movement – be it visible as whole-body movement, hand-arm gesture, changing gaze, or prosody – provides material to the unfolding thought process, in the words of Vygotsky, provides stimuli for controlling the activity of the brain. In the process, specific signs (e.g., a specific line or gesture) actually emerge from the possibilities produced in hand-arm movements that do not yet have a signifying function. The emergence of signs and the emergence of thought therefore are united in the same overarching process of which both are but manifestations.

ISSUES CONCERNING VYGOTSKY SCHOLARSHIP

This book constitutes an important addition to the literature for all those new and experienced scholars who intend to conduct research from and consistent with a Vygotskian perspective. Smagorinsky lays out a framework that includes the theoretical and topical dimensions, issues that arise from the area of literacy, and aspects of methods and the writing of methods sections. As I show in the preceding sections, there are tremendous opportunities that arise from taking a Vygotskian perspective on thinking and speaking, which allows us to understand the *real-time production* of communication *without presupposing* that thought already exists in its mature form even when we study adult thinkers. In fact, Vygotsky (1986) does not distinguish between children and adults and draws on the latter to exemplify the development of the thought-language relation in chapter 7 of *Thought and Language* where he specifically addresses the relation between thinking and speaking: “Since functional problems are most readily solved by examining the highest form of a given activity, we shall, for a while, put aside the problem of development and consider the relations between thought and word *in the mature mind*” (p. 217, emphasis added). In the opening lines of this foreword, I already intimate that much of what Vygotsky has to say

FOREWORD

is misrecognized in Western scholarship (which is a main tenor of the message of this book and a reason for its production). This is so because of numerous reasons, two of the most important of which include issues of translation and the inappropriate rendering of the Marxist underpinnings and method that characterizes Vygotsky's work.

On Translation

Many scholars in the areas of education and psychology apparently assume that thought is independent of culture and language. Concrete evidence for this can be seen in discussions scholars have in the xmca forum that accompanies the journal *Mind, Culture and Activity* where some work with and recommend automatic translations (e.g., using Babel Fish). Being fortunate enough to be fluent in three languages (German and French besides English), I can assert that while the very nature of language makes any text translatable, it also makes any text untranslatable. Scholars concerned with translation from very different disciplinary background – e.g., Paul Ricœur, who is a traditional philosopher steeped in the hermeneutics of biblical texts or Jacques Derrida, celebrated by many as the foremost post-structuralist thinker – agree on the dialectical nature of the problematic of translation, which involves the assumption an underlying master language that relates different forms of expression within the same language or between two different languages.

Because this double postulation

– *We never speak but one language . . .*

(*Yes but*)

– *We never speak only one language . . .*,

is not only the law itself of that which we call translation. It would be the law itself as translation. A law a little bit crazy, I am ready to admit. (Derrida, 1996, p. 25)

That is, speaking means making oneself intelligible to another, which is premised that despite the heterogeneity within and across languages, humans manage to communicate. This communication occurs even though “we never speak one language only.” This contradictory relation of the unity of heterogeneity – which in fact points to the non-self-identity of any language – also has been stated from within a more traditional philosophical approach. Thus,

[e]ither the diversity of languages expresses a radical heterogeneity – and then a translation is theoretically impossible; the languages are *a priori* untranslatable one into another. Or translation taken as a fact can be explained on the existence of a common ground that makes the fact of translation possible; but then we find ourselves in a situation of having to find the route to the *originary* language, either reconstructing it logically, and this is the route

toward a universal language; originary or universal, this absolute language has to be shown, in phonological, lexical, syntactic, and rhetorical tables. (Ricoeur, 2004, pp. 25–26)

The problem of translation is serious, because, as I could show in much of my writing, ideas are not rendered in the same manner in another language, even leading to a falsification of what an author has written in his/her original language. This also is the case of the translations of Vygotsky's work. For example, he uses two adjectives – *obščestvennyj* and *social'no* – both of which Vygotsky's translators into English tend to render as “social.” But the German translation suggests that the former term is used in the sense of “societal” and only the latter is used in the sense of “social.” In fact, the translators of a recent German version of *Thought and Language*, Joachim Lompscher and Georg Rückriem (Vygotsky, 2002), point out the notorious problems with the translations of Vygotsky's original text into European languages. The problems may reside partly in the writings of Vygotsky himself. For example, his original Russian text (Vygotsky, 2005) translated and published as “Concrete Human Psychology” (Vygotsky, 1989) contains citations to Marx, where he correctly uses *obščestvennyj* to translate Marx's German *gesellschaftlich* (societal) but then state ideas that he grounds in Marx by using the adjective *social'no* (social). The English translation does not distinguish the terms and simply uses “social” throughout, thereby not rendering Marx's original text in the proper manner. Similar problems exist with other terms, for example, *obučenie*, which is instruction in the form of the relation of teaching and learning. This term is often misused in the Anglo-Saxon by making it a one-directional flow of knowledge from a more competent or knowledgeable teacher to a less competent or knowledgeable student. As we show in recent work, this renders the kind of relation Vygotsky was thinking about – something symmetrical – in a totally inadequate manner (Roth & Radford, 2010, 2011).

The result of such inadequate translations can be seen in the misunderstanding many Western scholars have concerning the relationship between Vygotsky and Alexei Leont'ev. There are some who believe that the former attended more to the individual and the latter more to the collective (society). But this is absolutely not the case. Thus, for Vygotsky (1927/1997)

each person is to some degree a measure of the society, or rather class, to which he belongs, for the whole totality of social relationships is reflected in him. . . . We must reconquer the right for psychology to examine what is special, the individual as a social microcosm, as a type, as an expression or measure of the society. (p. 317)

I am quoting the translation without being able to ascertain whether Vygotsky used the adjective *obščestvennyj* or *social'no*. Elsewhere he writes: “development proceeds not toward socialization, but toward *individualization* of societal functions (transformation of societal relations into psychological functions)”

FOREWORD

(Vygotsky, 2005, p. 1025). The English translation of the text (Vygotsky, 1989) not only translates the two occurrences of *obščestvennyj* as “social” but also replaces “societal relations” as “social functions” (Vygotsky, 1989, p. 61). Without doubt, thinking higher psychological functions as the result of *societal relations* is very different from thinking them as the result of *social* relations. The former imply, as Vygotsky suggests in the quote, the relations of (social) classes, with all the issues of inequity that these imply, whereas social relations may be reduced to person–person interactions that have no political connotations whatsoever.

Turning to Leont’ev, we find precisely the same orientation to the individual as constitutive moment and result of society:

the real basis of man’s personality is the totality of the by nature societal relations of man to the world, that is, relations that are *realized*. This occurs in his activity, or more precisely, through the totality of his manifold activities. (Leontjew, 1982, pp. 175–176)

Again, the English translation renders Leont’ev’s Russian¹ adjective *obščestvennyj* as “social” whereas the German version translates the passage using *gesellschaftlich* (societal). That the latter term is to be used can be seen from the fact that the Russian term translates Marx’s German equivalent, and the German translation of Leont’ev correctly re-translates the term into German. More important perhaps than the linguistic issue is the fundamental equivalence of the way in which Leont’ev has taken up Vygotsky, both grounding themselves in Marx. Leont’ev does not offer a different perspective on the individual in society but the same as Vygotsky, though in much more elaborate form. The role of Marx in the work of Vygotsky is worth a look, for it characterizes his entire work rather than being – as some scholars claim – a mere nod to the emerging totalitarian government in the USSR at the time of Vygotsky’s writing.

Marxist Foundation of Vygotsky’s Work

Some scholars deny that Vygotsky was a Marxist thinker often suggesting that he referred to Marx to please the Soviet rulers of his days. My sense, however, is very different. He does not merely drop the names of Karl Marx and Vladimir Lenin but exhibits, in his way of writing and theorizing, precisely the same approach that characterizes Marx, Engels, or the Marxist approach of the Bakhtin group. It does not behoove me to produce a full and exhaustive proof here. Instead I hope that the following pointers to his thinking and method suffice to exhibit his deep grounding in and debt to the dialectical materialist approach Marx has given rise to. This approach also characterizes those of his successors, including Leont’ev and Klaus Holzkamp, who worked out the program Leont’ev had framed based on Vygotsky’s ideas.

When our Marxists explain the Hegelian principle in Marxist methodology they rightly claim that each thing can be examined as a microcosm, as a universal measure in which the whole big world is reflected. On this basis they say that to study one single thing, one subject, one phenomenon *until the end*, exhaustively, means to know the world in all its connections. (Vygotsky, 1927/1997, p. 317, underline added)

Vygotsky then refers to the individual human as a microcosm of society, the case I quote from above. He articulates how Pavlov and others proceed and then suggests, “when I am experimenting, I am studying A, B, C. . . , i.e., a number of concrete phenomena, and I assign the conclusions to different groups: to all people, to school-aged children, to activity, etc.” (p. 318). He elaborates the description of his method:

I have tried to introduce such a method into conscious psychology and deduce the laws of the psychology of art on the basis of the *analysis* of one fable, one short story, and one tragedy. In doing so I proceeded from the idea that the well-developed forms of art provide the key to the underdeveloped ones, just as the anatomy of man provides the key to the anatomy of the ape. I assumed that Shakespeare's tragedy explains the enigmas of primitive art and not the other way around. Further, I *talk about all art* and do not verify my conclusions on music, painting, etc. What is even more: I do not verify them on *all* or the majority of the *types* of literature. I take *one* short story, *one* tragedy. (p. 319)

That is, Vygotsky refers to Marx's method, states a characteristic of it, then provides examples from the work of others, and follows this by suggesting that his own study of the psychology of art (Vygotsky, 1971) is an example of introducing this “method into conscious psychology.” After describing his method of finding the general dimensions in the analysis “one fable, one short story, and one tragedy,” and after elaborating further on the sameness of this method with the approach of Pavlov, he then suggests that this is precisely the same method that Marx used in his analysis of economy. Thus,

Marx [1867/1981, p. 121 says essentially the same when he compares abstraction with a microscope and chemical reactions in the natural sciences. The whole of *Das Kapital* is written according to this method. Marx analyzes the “cell” of bourgeois society – the form of the commodity value – and shows that a mature body can be more easily studied than a cell. He discerns the structure of the whole social order and all economical formations in this cell. He says that “to the uninitiated its analysis may seem the hair-splitting of details. We are indeed dealing with details, but such details as microscopic anatomy is also dealing with.” He who can decipher the meaning of the cell

FOREWORD

of psychology, the mechanism of one reaction, has found the key to all psychology. (p. 320, underline added)

Clearly, there cannot be any doubt that Vygotsky draws on the same dialectical materialist method that characterizes Marx. He provides concrete examples that exhibit the parallels between his own approach and that of the philosopher. With those readers who still doubt, I want to turn and return to *Thought and Language* (Vygotsky, 1986). The approach to theorizing articulated above pervades the entire book, beginning with chapter 1, apparently written shortly before his death and after the remainder of the book has written. Here Vygotsky advocates a “unit analysis,” which is synonymous to the “cell” that he uses in the preceding quotation.

After critiquing traditional psychology, Vygotsky suggests: “Psychology, which aims at a study of complex holistic systems, must replace the method of analysis into elements with the method of analysis into units” (p. 5). He then suggests *word meaning* to be the “unit of verbal thought that is further unanalyzable and yet retains the properties of the whole” (p. 5). He proposes that “the conception of word meaning as a unit of both generalizing thought and social interchange is of incalculable value for the study of thought and language” (p. 9). Unit analysis “demonstrates the existence of a dynamic system of meaning in which the affective and the intellectual unite” (p. 10). That is, much as the commodity form value is the “‘cell’ of bourgeois society,” word meaning is a unit that unites the affective and the intellectual. Moreover, this suffices “to show that the method used in this study of thought and language is also a promising tool for investigating the relation of verbal thought to consciousness as a whole and to its other essential functions” (p. 11). That is, Vygotsky not only claims word meaning – the relation of the processes of thinking and speaking – constitutes a unit, but that this unit is a “promising tool” in the study of thought and its relation to consciousness. But consciousness is a collective, human phenomenon, which individualizes itself in self-consciousness. “Consciousness,” Vygotsky suggests, “is reflected in a word as the sun in a drop of water. A word relates to consciousness as a living cell relates to a whole organism” (p. 256). More so, “a word is a microcosm of human consciousness” (p. 256) much like a raindrop reflects the entire world, and much like the word and consciousness are related in the way “an atom relates to the universe” (p. 256). That is, he articulates *precisely* the same relations as in his text on the crisis of psychology, with which I begin this subsection. Just as his study of art by means of close analysis of three specific texts leads him to understand the psychology of art generally, including primitive art, so does word meaning lead him to understand the relation of thought and human consciousness.

This is also where we can observe the undeniable relation to the thought of one of his contemporary: Mikhail Bakhtin. Vygotsky suggests that “the word is a thing in our consciousness . . . that is absolutely impossible for one person, but that

becomes a reality for two” (p. 256). His contemporary has exactly the same take in his Marxist approach to language:

Whatever moment of the expression-utterance we consider, it will be determined by the real conditions of the utterance in question, that is, before all by the *most immediate social situation*.

In effect, the utterance is the product of the interaction of two individuals socially organized and, even if there is no real interlocutor, one can substitute to him a average representative of the social group to which the speaker belongs. *The word addresses itself to the interlocutor*; it is a function of the person of this interlocutor: It will vary depending on whether or not it is a man from the same social group, whether he is inferior or superior in the social hierarchy, whether or not he is linked to the speaker by more or less close social links (father, brother, husband, etc.) (Bakhtine [Volochinov], 1977, p. 123, underline added)

In this quote, we see the same emphasis on the societal relation – although Bakhtin calls it “social,” he subsequently specifies it in terms of social hierarchies that are really the product of a society and its division of labor. Like Vygotsky, Bakhtin suggests that the word is a reality for two, even in situations where the interlocutor is absent. An individual never is the owner of a word – not in the least because language is a feature of the collective. Thus,

[i]f language is as old as consciousness itself, and if language is a practical consciousness-for-others and, consequently, a practical consciousness-for-myself, then not only one particular thought but all consciousness is connected with the development of the word. (Vygotsky, 1986, p. 256)

This leads Bakhtin to ask how to think about the speaker. He concludes: “[i]n effect, if he does not completely own the word, because it is situated in something like a border zone, he can claim at least a good half” (Bakhtine [Volochinov], 1977, p. 124). Here, then, we have a very close connection to the often-decried “post-modernist” and “post-structuralist” approaches, which in fact do not differ from the deep structure of Marxian thought also pervasive in such philosophical works as that by Paul Ricœur and Jacques Derrida (Roth, 2006). The equivalence of the approach is obvious in the following quotation:

Monolingualism of the other still means another thing, which will reveal itself little by little: that in any case one speaks only one language – and one does not *have/own* it. One never speaks but one language – and it exists asymmetrically, returning from the other, always, for *the other*, from the other, kept by the other. Having come from the other, having remained with the other, having returned to the other. (Derrida, 1996, p. 70).

These are interesting ideas that any study of literacy will have to pick up and address. Using the Vygotskian approach will be ideal because the object, language,

FOREWORD

as outline here, and the method of studying it, are co-extensive – a point made over and over again in Vygotsky’s (1927/1996) chapter on the crisis of psychology. In this book, Smagorinsky is laying a foundation for changing the ways in which Anglo-Saxon scholars will approach the problems of language and literacy from a truly Vygotskian perspective, not from a semblance of it, which has emerged in part because of the ideological differences between two world powers at the time of the first translations of the scholars work into English.

CODA

There is much that I share with Peter Smagorinsky, beginning with the fact that I was trained in Piagetian constructivism and moved on to do work in information processing. As he, I did not begin to do serious scholarship within a Vygotskian framework until after having worked through a range of theoretical paradigms – including radical constructivism, social constructivism, phenomenology, ethnomethodology, discursive psychology, and the Helsinki version of cultural-historical activity theory that Smagorinsky frequently refers to – before discovering the importance of Vygotsky’s work for my own interest in the emergence of thinking and speaking processes (e.g., Roth, 2009, 2010). It was in and through my deep engagement with *Thought and Language* particularly that I discovered (a) the relationship between Marx and Vygotsky in their ways of thinking about phenomena, which is grounded in their praxis of materialist dialectics and (b) the relationship between Vygotsky and Bakhtin, which again can be attributed to the manner of theorizing to understand processes “in the Heraclitean stream” (Vygotsky, 1927/1997, p. 274). It is in and out of this recognition that I have supported the author of this book in his project to articulate a Vygotskian approach to the study of literacy practices. What we need – as seen in the preceding sections, and what Smagorinsky is helping us developing toward – is a working out of the possibilities that exist within the Vygotskian approach as he himself conceived it. Too much Western scholarship at this instant of the educational sciences only cursorily touches upon Vygotsky rather than engaging deeply not only with the contents of his writing but also, and more importantly so, with his method of developing new understanding through the careful analysis of concrete cases. The point is to find and work out in each concrete case that which in fact is general.

To find the general in the concrete specific means to think genetically, where this term refers to the developmental aspects rather than to the genes. For Vygotsky, as for all those who use a dialectical materialist perspective, the general is like a seed that concretizes itself in the mature organism as a function of the condition, including its own current state and relations to the environment. That is, the general is always present in the concrete particular, because the latter actually realizes the possibilities inherent in the former. Vygotsky (1927/1997) describes the approach in this manner after discussing a variety of approaches to the psychology of art:

This is all true, but it does not change the veracity of a principle, because it is *abstracted* from all this. It only says that the *aesthetical reaction is like this*. It is another matter to find the boundaries and sense of the aesthetic reaction itself within art.

Abstraction and analysis does all this. The similarity with the experiment resides in the fact that here, too, we have an artificial combination of phenomena in which the action of a specific law must manifest itself in the purest form. It is like a snare for nature, an analysis in action. In analysis we create a similar artificial combination of phenomena, but then through abstraction in thought. . . .

Each lyrical poem is such an experiment. The task of the analysis is to reveal the law that forms the basis of nature's experiment. But also when the analysis does not deal with a machine, i.e., a practical experiment, but with any phenomenon, it is in principle similar to the experiment. It would be possible to prove how infinitely much our equipment complicates and refines our research, how much more intelligent, stronger and more perspicuous it makes us. Analysis does the same. (p. 320)

In this excerpt, Vygotsky critiques the traditional (Kantian, idealist) way of *abstracting from* phenomena, which retains only externalities (manifestations) that are related to the externalities (manifestations) of similar phenomena. But externalities, as Hegel (1979) says, "are indifferent to one another and therefore lack the necessity for one another that out to lie in the relation of an *outer* to an *inner*" (p. 236). Vygotsky suggests that the best we can say that one thing "is like" another phenomenon, which is the case because "such an arbitrary combination of entities that are externalities for each other makes no law" (Hegel, 1979, p. 236). Vygotsky recommends a different approach by saying that "it is another matter to find the boundaries and sense of the" *phenomenon itself within the concrete case*, which, in the quotation, is art. Incidentally, Vygotsky has chosen as concrete objects a fable, a short story, and a tragedy, all from the domain that is at the center of Smagorinsky's concerns: language and literacy. The articulation of a Vygotskian approach therefore is not only of general relevance (to the study of knowing and learning) but also of particular relevance to the area that Smagorinsky has studied for over two decades.

REFERENCES

- Bakhtine, M. [Volochinov, V. N.] (1977). *Le marxisme et la philosophie du langage: Essai d'application de la méthode sociologique en linguistique* [Marxism and the philosophy of language: Essay on the application of the sociological method to linguistics]. Paris: Les Éditions de Minuit.
- Derrida, J. (1996). *Le monolinguisme de l'autre ou la prothèse d'origine* [Monolingualism of the other or the prosthesis of origin]. Paris: Galilée.
- Hegel, G. W. F. (1979). *Werke Band 3: Phänomenologie des Geistes* [Works Vol. 3: Phenomenology of spirit]. Frankfurt a. M.: Suhrkamp Verlag.

REALIZING VYGOTSKY'S PROGRAM

Wolff-Michael Roth
Victoria, BC
April 2011

NOTES

- ¹ The Russian original is available at <http://www.psy.msu.ru/science/public/leontev/index.html>.

AUTHOR'S PREFACE

In a sense, I have been writing this book for twenty years. This version of my text represents what I hope is a relatively mature account of what I have come to understand to be a Vygotskian perspective on literacy research. I deliberately hedge this understanding because my grasp of Vygotskian concepts continues to evolve as I grapple with new readings and my ongoing studies of the teaching and learning of literacy practices. In this preface I will briefly outline my own development of a concept of what a Vygotskian perspective means when applied to literacy research.

I did not begin my career in education with any knowledge of L. S. Vygotsky or his research program. When I began teaching in 1976, Vygotsky was little known in my field of English Education, i.e., the domain focused on the teaching and learning of literature, writing, and language (i.e., English grammar), as opposed to teaching and learning English as a new or foreign language. My primary focus was on learning a principled approach to teaching these three traditional strands of the English curriculum in an integrated fashion to high school students in public schools in the Chicago area. The reigning educational psychologist of the day was Piaget, although he was not featured by my major professor, George Hillocks, at the University of Chicago where I earned my M.A.T. in English Education. Rather, I learned to teach in the context of Benjamin Bloom's new work on mastery learning (Bloom, 1976) and his classic work on educational objectives (Bloom, 1956), and in tradition of Ralph Tyler's (1949) views on curriculum alignment, all in the long shadow cast by John Dewey, who had once directed the adjoining Laboratory School while a faculty member in Chicago's Judd Hall.

Through this preparation I learned the systematic planning of instruction in concept-based units, something I still emphasize in my current work on instructional design (e.g., Smagorinsky, 2008; Smagorinsky, Johannessen, Kahn, & McCann, 2010). This preparation served me well as a high school teacher in terms of my ability to think in terms of how to organize instruction according to themes and other concepts (e.g., studying literature and engaging in writing around such conceptual problems as coming of age, considering the question of human progress, and so on). And as a beginning teacher, that was my focus. I was not yet concerned with how my teaching might interact with the backgrounds that my students brought to class—my schools had fairly homogeneous student populations—as I later came to do through my reading of the sociocultural literature (see, e.g., Smagorinsky, 2002, 2007a, 2009) and my resultant reconsideration of the effects of my teaching.

AUTHOR'S PREFACE

My return to graduate school in 1983 involved me in a more research-rich environment than did the practice-oriented, if theoretically framed, orientation of my master's program. My decision to return for doctoral studies was motivated by my interest in learning more about how to teach writing, which at the time was a highly contested area of the curriculum. The primary tension at the time was between product-oriented instruction presented by teachers through models of such forms as the five-paragraph theme, and teaching that focused on the processes that one goes through to produce such forms. Form-oriented instruction was viewed as "traditional teaching" and thus archaic; the new wave emphasized knowledge of procedures and strategies.

Even within the process-oriented camp, there were major sources of tension. My master's and doctoral advisor, George Hillocks, believed that one learned how to write by learning different procedures for different sorts of writing tasks (see Hillocks, 1995, for a comprehensive outline of his method; and Smagorinsky & Smith, 1992, for a review of the terms of the debate). Learning to write a personal narrative and learning to write an argument, he asserted, required different kinds of knowledge of purpose, process, form, and readerly expectations. Teachers thus had to learn how to scaffold different sorts of processes by planning activities that engaged students in how to think about the problems their writing was designed to address.

His primary process-oriented antagonists—and the disagreements were quite contentious—viewed writing as something undertaken by people to suit their own interests and needs such that a teacher's instructional design was considered to be inappropriate and heavy-handed (e.g., Atwell, 1987). Taking a perspective more grounded in Piagetian constructivism and Rousseauian Romanticism, this approach emphasized the need for teachers to stand back and let children and adolescents set their own writing course in terms of topic, process, form, purpose, and audience. As Graves (1983) memorably stated his position, teachers needed to stand back and follow the child, rather than leading her, as advocated by Hillocks. As a student of Hillocks, I was inclined to accept his premises; but at the same time, my high school faculty was strongly influenced by Emig (1971), a leader along with Graves of the nondirectional group of process advocates. My doctoral studies thus began in the midst of this tension surrounding writing instruction: to emphasize form or process, and if emphasizing process, to focus on particular task-related strategies or to let students determine their own directions, topics, and processes.

The early 1980s were heady times for writing research. The protocol analysis studies of Flower and Hayes (1980a, 1980b, and many others) and Bereiter and Scardamalia (1986, 1987), grounded in the information processing paradigm that sought to use the computer as a metaphor for human cognition, spearheaded the effort to understand the process of writing by eliciting think-alouds from writers as they composed. I immersed myself in this scholarship as a way to understand how writing unfolded, and my dissertation (Smagorinsky, 1991) explored the thought

processes of writers producing a single type of writing—extended definition essays—in response to three instructional approaches differentiated by the variables representing the major approaches I have reviewed: the traditional presentation of models essays, a Hillocksian structured process approach focused on task-specific definitional strategies, and a nondirectional process approach in which students used the process of free writing to generate ideas. Rather than studying the essays themselves, I contrasted pre-instruction and post-instruction think-alouds to see how the different instructional treatments, as they were known in the parlance of the experimental paradigm in which I worked, affected students' thinking as they wrote. The links I made between the variable of instruction and the students' cognition in this early work had no sociocultural basis, however; my interpretive efforts were grounded in how to construct cognitive models of composing as they unfolded in relation to different methods of teaching writing.

This emphasis began to change within a few years of completing my degree in 1989 and taking my first university position at the University of Oklahoma in 1990. My curriculum and instruction department at OU was heavily Piagetian at the time, with faculty in some programs deliberately selected for their fit with Piagetian constructivism and its assumptions about human development unfolding in predictable stages, with such concepts as conservation becoming available to children with their biological maturation rather than in relation to instruction or other environmental factors. At the same time, through my national networks and at the insistence of one colleague, Steve Witte, I was hearing more and more about an alternative way of thinking about how people learn that emerged from the work of L. S. Vygotsky. Steve gave me a reading list and I got to work engaging with the ideas of Vygotsky (1978, 1986) and scholars working in his considerable wake: Cole (1996), Moll (1990), Rogoff (1990), Wertsch (1985, 1991), and many others.

Based on this reading, I began to re-examine the assumptions behind my early work and think about how to reconceptualize it based on Vygotsky's premise that the psychology ought to be fundamentally developmental in focus, with volitional, goal-directed, tool-mediated action in its social, cultural, and historical context serving as the unit of analysis for studying human growth, understanding, and action. I was fortunate to be able to attend the September, 1994 International Conference on Lev Vygotsky and the Contemporary Human Sciences in the conference center in Golitsyna, about an hour from Moscow, an event I consider to be a landmark occasion in my career given the ideas to which I was exposed and the new network of scholars that I joined. At the conference I also made one connection that has survived to this day, that being my followup on advice to subscribe to the XLCHC online discussion network hosted by Mike Cole.

In the absence of a robust discussion surrounding Vygotsky at Oklahoma, this network provided me with a community of scholars from around the world who were interested in discussing and applying Vygotskian ideas to new international developments and challenges. Its original name of XLCHC indicated

AUTHOR'S PREFACE

its role as a crossroads for those with a history of participation in the Laboratory of Comparative Human Cognition at the University of California-San Diego. The opportunity to subscribe was subsequently opened to any willing participant. The network was renamed when *The Quarterly Newsletter of the Laboratory of Comparative Human Cognition* went from an in-house publication designed to keep LCHC participants in touch with one another's emerging work¹ to a refereed journal, *Mind, Culture, and Activity*. The newly-named XMCA discussion network then took on the role of discussing and exchanging ideas, with the journal *MCA* serving as a vehicle for more polished presentations of research and theory.

Like anyone trying to grasp a new and difficult concept, I experienced a learning trajectory that resembled what Vygotsky (1987) terms a "twisting path" rather than a linear one (cf. Smagorinsky, Cook, & Johnson, 2003). Even though I began immersing myself in Vygotskian scholarship, my publications through 1994 were slow to take up his work in a consistent and substantive way. For example, Michael Smith and I wrote an article (Smagorinsky & Smith, 1992) reviewing the nature of knowledge in writing and reading, identifying three stances available in research on each: that knowledge is general across tasks (e.g., the general process approach of Emig and Graves), that knowledge is specific to tasks (e.g., the structured process approach of Hillocks), and that knowledge even within tasks is specific according to the values of different communities of practice.

This trifurcation is evident in argumentation, in which some believe that learning general writing strategies (e.g., writing freely to generate ideas) is sufficient to write effectively for arguments or any other writing task; some believe that writing arguments requires different formal and procedural knowledge than do other tasks such as writing narratives; and some believe that arguing within one community of practice (e.g., the bellicose and antagonistic means of exchange that characterize television political pundits) requires different knowledge than does arguing within another (e.g., the perspicuous writing and speaking of lawyers presenting briefs to judges in a court of law).

This last position would greatly benefit from a Vygotskian framework, given that it posits the importance of culture in the development of a worldview and its associated practices. Yet in my early stages of concept development, I did not have a sufficient grasp of Vygotsky's principles to provide this grounding. Similarly, in 1994 I published an edited book on research method in which I persisted with an information processing framework for using protocol analysis for the study of writing, even as I was reading heavily in Vygotskian scholarship that contested the "in-the-head" view of cognition central to that tradition, one that Leont'ev (1981) dismissed as "the traditional bourgeois psychological approach to consciousness" (p. 223). Within a few years I was ready to challenge those assumptions, both with regard to writing (Smagorinsky, 1997) and protocol analysis (Smagorinsky, 1998). My halting, fitful path of development, however, is evident in my two-steps-forward-one-step-back process of coming to understand what a Vygotskian perspective provided for literacy

research and the contradictory positions I was taking from conversation to conversation and article to article in the early 1990s.

Gradually my writing and thinking began to cohere in a more consistent view that culture mediates human development such that thinking reflects social practices while in turn helping to shape them. Simply coming to a greater understanding of Vygotsky, however, provided only a new channel to provide contours to guide my thinking; it did not provide me anything approaching conceptual clarity. My first references to Vygotsky came in my efforts to make contextual sense of students discussing literature in small groups as a function of larger patterns of localized classroom discourse (Smagorinsky & Fly, 1993) and students' interpretations of literature through art (Smagorinsky & Coppock, 1994, 1995a, 1995b) in the context of an alternative school in which their teacher encouraged nontraditional compositional tool use. Note that the publication dates indicate that as I was beginning to take a Vygotskian perspective in some publications, I persisted with information processing assumptions in others.

Even after adopting Vygotsky's ideas more wholeheartedly, my twisting path of concept development took a few errant turns with my effort to frame my studies as motivated by *activity theory*, which I broadly took to mean a view of situated and distributed cognitions that are culturally and historically grounded, socially situated, and locally practiced. When I referred to my research with this term in manuscripts submitted for publication, however, I was scolded by reviewers for not referencing Engeström, who had assumed the activity theory mantle in his workplace studies in which he used his activity triangle as a mediating device for workforce collectives to "expand" their knowledge into new forms of learning and activity (e.g., Engeström, 1999).

According to Engeström and Miettinen (1999), "a theoretical account of the constitutive elements of the system under investigation is needed. In other words, there is a demand for a new unit of analysis. Activity has a strong candidate for such a unit of analysis in the concept of *object-oriented, collective, and culturally-mediated human activity, or activity system*" (p. 9; emphasis in original). This system involves analysis at the level of "collective motive-driven activity, individual goal-driven action, and automatic operations driven by the tools and conditions of action" (p. 9), a focus that they derive from Leont'ev (1978). This emphasis on the activity system, argue the authors, is distinct from Wertsch's *sociocultural theory of mediated action* (Wertsch, del Rio, & Alvarez, 1995) and Lave and Wenger's (1991) *theory of legitimate peripheral participation* because of what Engeström and Miettinen see as too great a focus on the individual rather than the collective in the work of Wertsch et al. and Lave and Wenger.

Engeström and Miettinen (1999) summarize their differences with these approaches by asserting that, although their semiotic and interactional dimensions are potentially productive, they are problematic when considered in an attempt to understand context. Individuals act in collective practices, communities, and institutions. Such collective practices are not reducible to sums of individual action;

AUTHOR'S PREFACE

they require theoretical conceptualization in their own right. When the individual action is the privileged unit of analysis, collective practice can only be added on as a more or less external envelope. Human conduct appears to appear as a string of goal-directed acts of rational actors.

This assertion of activity theory as oriented to collectives rather than contextualized individuals appears to have become orthodox to many, particularly those who were enlisted as reviewers of my manuscripts. My engagement with these critiques led me to reject the notion that I was an activity theorist, and I began referring informally to myself as a defrocked activity theorist, one who once believed but now was scorned because I was more interested in contextualized individuals than collective activity systems, as seemingly required in scholarship claiming an activity theory perspective. I thus began to disassociate myself from activity theory and the terminology that became associated with Engeström's work, not because I find it wrong but because it did not characterize my interests, which are more aligned with Wertsch's sociocultural theory of individuals engaged in action mediated by cultural tools.

Work that I had undertaken thus, in short order, became subject to theoretical revision because of the social and disciplinary pressure I felt to conform activity theory claims to Engeström's formulation, and my disinclination to do so. In Grossman, Smagorinsky, and Valencia (1999), for instance, we framed our studies of early-career teachers' development of literacy teaching approaches and appropriation of pedagogical tools in terms of activity theory, referencing Wertsch's claims to be employing a theory of activity and Cole's (1996) CHAT perspective. I cannot speak for my coauthors in terms of this perspective's appropriateness for their work. My own approach of working from individual, situated cases, however, soon came in conflict with the field's association of activity theory with Engeström's collectivist insistence and I began to distance myself from its emphasis, vocabulary, and orientation (e.g., Smagorinsky, 2009).

Those of us in the U.S. are raised from birth to think in terms of individuals and independence rather than collectives and group action, such that if Engeström is right, a perspective like activity theory is difficult to integrate into our prior frameworks for thinking, even as they are emphasized (with or without proper understanding) in discussions, presentations, and publications and more appropriately applied by researchers from more collectivist social backgrounds (see, e.g., the Scandinavian contributors to Ellis, Edwards, & Smagorinsky, 2010).

I am not in a position to say who is right, however, given the limitations of what is available to me as a typical American who lacks fluency in European languages². In writing this book, however, I had to make another correction, and no doubt it will not be my last. Roth and Radford (2011) argue that Leont'ev, in the tradition of historical dialectical materialism,

offers a new way in which to theorize the question of the subject (its consciousness, its psychic processes, its personality) in ways that are not dualis-

tic in nature. Leont'ev's answer is this: development occurs in and through relations with others in the pursuit of collectively motivated *activity*. From this point of view, the psyche is a culturally and historically evolved form of reflection. Hence something that can exist through two *mutually constitutive* terms: an 'I' and an 'Ego' (a complex that includes subjects and the symbolic and material reality that surrounds them). Thus, we agree with Leont'ev when he says that 'any psychic reflection is the result of a real connection, of a real interaction of a living, highly organized, material subject and the material reality around him' (Leontyev 1981: 225). Psychic reflection, consciousness, mind, or abstract knowledge cannot exist or 'arise without the subject's activity. It cannot help depending on activity, cannot help being subordinated to the subject's life relations realized by activity' (*ibid.*: 225). (p. 2; emphasis in original)

Here Roth and Radford (2011) read Leont'ev differently than does Engeström, asserting that Leont'ev allows more space for the individual's goal-directed action than does Engeström. Neither Roth nor Engeström reads Leont'ev in Russian, but both do in German, providing each with a broader perspective than is available to me yet finding something different in the translations. Both characterize themselves as activity theorists or cultural-historical activity theorists (e.g., Roth & Lee, 2007), drawing on Leont'ev (1981 and other texts). My position as a researcher of individuals-in-context is available through Roth's reading but not Engeström's, who would argue that by focusing on situated individuals, I thus cannot sufficiently account for context, even though my attention to cultural-historical aspects of settings is, I believe, sufficient for the claims I make. Even as I write this book, therefore, I come across new ideas (if not entirely new understandings) that complicate my efforts to situate myself with respect to the research tradition that I believe I am working within.

This book represents an effort to update, consolidate, and extend my prior work as a literacy researcher operating from a Vygotskian perspective. In doing so I return to some earlier work, some of which holds up well and some of which requires revision and reconsideration in order to fit conceptually with my present understanding of what my research has amounted to thus far, with the expectation that this understanding will continue to grow. By articulating how I see Vygotsky informing literacy studies, I hope to accomplish a more clearly conceptual understanding for my own purposes and to provide some illumination and insight, I hope, for other readers. With that as my goal, I next introduce this volume and then get down to the serious and difficult work of trying to write myself into a new understanding of issues that have perplexed me for many years now and that I continue to wrestle with as each new effort helps to refine the last.

Athens, Georgia

June 2011

AUTHOR'S PREFACE

NOTES

- ¹ The contents of the newsletter have been archived at <http://lhc.ucsd.edu/Histarch/newsletters.html>, and selected publications are collected in Cole, Engeström, and Vasquez (1997).
- ² I'm reminded of the old joke—whose punch line relies on listeners' recognition of its truth value—that those who speak three languages are trilingual, those who speak two are bilingual, and those who speak one are American. Like many Americans, I took foreign languages in school to little long-term effect. I studied Latin for one year, and took many years of French and one year of Spanish, both using the Audio-Lingual Method (ALM) and the dialogues I was required to memorize, and can still recall (“Bonjour Jacques, comment vas tu?” “Tres bien, merci. Et tu?” “Pas mal, merci.”). I also took a year of French in college, where I was ultimately required to read Camus's existential novel *L'Étranger* in French, which was a truly mystifying experience until I discovered that everyone else in the class was taking the shortcut of reading an English translation, a practice I gladly embraced. I was also required to pass a French exam as part of my doctoral program at the University of Chicago, in which I translated a set of French social science article excerpts into English, passing the exam on my third try when the material finally matched my meager level of fluency. Shortly thereafter I watched a French film, but couldn't understand a word the actors said.

PART 1

THEORETICAL AND TOPICAL FRAMEWORK

CHAPTER 1

THE CHALLENGES OF CLAIMING A VYGOTSKIAN PERSPECTIVE

Claiming Vygotsky as a theoretical source has become a common practice in much recent scholarship on teaching and learning. Doing so, however, is problematic given the reliance of most non-Russians on translated versions of Vygotsky and given the different ways people have found to appropriate what appears in both the original Russian versions and in the translations. A single text, *Myshlenie i Rech': Psikhologicheskie Issledovaniya* (Vygotsky, 1934), has been translated three different times under two different titles (as *Thought and Language* in Vygotsky, 1962, 1986; and as *Thinking and Speech* in 1987). Moll (1990) sees Vygotsky's work as *sociohistorical* psychology, Berkenkotter and Huckin (1995) characterize his project as *sociocognitive*, Wertsch (1994) argues that Vygotsky's perspective is *sociocultural*, Atherton (2011) views Vygotsky as being a *social constructivist*, to Rodina (2006) he is a *social constructionist*, Mikhailov (2006) describes Vygotsky as a *cultural-historical* psychologist, Engeström (1987) characterizes his work as *activity theory*, and Cole (1996) has chosen the term *cultural-historical activity theory* (CHAT) to describe his work in Vygotsky's tradition as what he calls *cultural psychology*.

My goal with this book is not to tease apart these related constructs in all their substantial detail, or to analyze them to determine which characterize a Vygotskian perspective better than others. Rather, it is to try to explain what I see as available to literacy researchers based on the perspective provided by Vygotsky's work in human development. I do engage in some terminological interrogation, but not at the expense of the focus of my effort. Each of these terms has currency regarding some aspect of Vygotsky's work, and no single term can possibly capture the complexity of his perspective, one that posits a historical, cultural, social theory of volitional, tool-mediated cognition and action that contributes to human development toward teleologically contoured, goal-oriented ends.

Even when people can agree on the terms of a Vygotskian approach, they often disagree on the substance of his concepts. His best-known construct, the *zone of proximal development* (or ZPD, which I treat in detail in Chapter 3), has been interpreted in at least three completely different ways (Lave & Wenger, 1991). It has been invoked to account for the success of theoretically incompatible pedagogical approaches, such as *whole language* practices that minimizes teacher direction (Goodman & Goodman, 1990), and *reciprocal teaching* in which "membership in the group is not democratic; the adult teacher is definitely a first among equals" (Brown & Palincsar, 1989, p. 417). Cazden (1996), in surveying modern citations

CHAPTER 1

to Vygotsky, has argued that most readings of Vygotsky are "selective," revealing more about Vygotsky's appropriator than about Vygotsky's psychological theories. Undoubtedly, this observation will apply to me in this volume as much as it applies to anyone.

In claiming a Vygotskian perspective, I thus engage in a social practice of knowledge construction, using my understanding of Vygotsky—mediated by my encounters with a variety of Vygotskian viewpoints in conversation, print, and cyberspace, based entirely on translated versions rather than his original Russian texts—for grounding in advancing my points. My use of Vygotsky reflects my own approach to theory-building as I consider problems involved in conducting literacy research.

Assertions of a Vygotskian perspective are often tenuous at best. I too often see references to selected sections of *Mind in Society* that do not suggest a richer reading or consideration of either his own more extensive writing or the body of work produced by people conversant with his career project. When a theorist becomes popular or trendy, many people seek to find some association between the theorist and their own work and thus claim an influence, even if that association does not connect their work in substantive and comprehensive ways, and even if they discovered the theorist long after they developed the ideas that they claim were influenced. I'm reminded here of the fact that Adolf Hitler was a vegetarian, and so am I. That, however, does not make me a Nazi. Similarly, people who find some similarity between their own views and practices and those expressed somewhere in Vygotsky's voluminous writing cannot claim to be Vygotskian, simply because they have found an area of overlap.

Vygotsky sought to resolve the crisis of fragmentation that he saw in the psychology of his day. The crisis remains in the 21st Century, as evidenced by the abundance of psychologies and their different foci still available. Vygotsky's solution was to propose and lay the foundation for a comprehensive psychology of human concept development. His ambitious plan included three central facets: It was fundamentally genetic¹ (i.e., developmental), it relied on the premise that frameworks for thinking are social in origin and are appropriated through cultural practice, and it employed the axiom that mental processes are mediated by tools and signs (Wertsch, 1985) or, as Cole (1996) combines them, by *artifacts*. Wertsch summarized a Vygotskian perspective as being concerned with human concept development as goal-directed, tool-mediated action, which I have interpreted to imply that the action is volitional and that the tools that mediate thinking and action emerge from cultural practice and are used toward culturally-appropriate ends.

Vygotsky has been referenced to account for learning and development in many scholarly fields, particularly with regard to the ZPD. Wells (1999) argues that these citations are often ill-informed, saying that the ZPD "is the only aspect of Vygotsky's genetic theory of human development that most teachers have ever heard of and, as a result, it is not infrequently cited to justify forms of teaching that

CHALLENGES OF A VYGOTSKIAN PERSPECTIVE

seem quite incompatible with the theory as a whole” (cited in del Rio & Álvarez, 2007, p. 313; cf. Smagorinsky, 2007a). In addition to reading the ZPD referenced to explain accounts of teaching and learning without attention to their cultural and historical dimensions—a central feature of a true ZPD analysis—I have also read publications in which Vygotsky’s consideration of the importance of “play” is extrapolated to support the claim that Vygotsky believed that learning should be “fun” (e.g., Wilhelm, Baker, & Dube, 2001). And yet as Hedegaard (2007) argues, Vygotsky’s notion of play refers to experimental activity designed to create possibilities, and not to the idea that learning should involve merriment. Such learning might be frustrating, difficult, laced with failure, and decidedly lacking in an immediate experience of pleasure.

Vygotsky, from what I can gather, was not a fun guy, but rather an extraordinarily intense and formidably brilliant man. References to his work that do not take into account his larger project ought to be subjected to severe review and critique. That is, if the ZPD is invoked without attention to issues of culture, intersubjectivity, the historical role of tool-mediated action in the setting of teaching and learning, and other issues that tie his ideas together, any reader ought to view the reference with skepticism. Otherwise, as is now the case, Vygotsky’s work will continue to be treated superficially and misappropriated to suit authors’ purposes and not to advance scholarship within the framework of his ideas.

Researchers are at least as guilty of these trivial applications of Vygotsky as are teachers, who were the concern of Wells (1999). I regard this superficial referencing by researchers as a more severe problem in that they have time to think more carefully about their work than overburdened teachers, and so should take more seriously their responsibility to read their sources and their attendant scholarship with care. When a theoretical source is employed more as a means of membership in a club than to advance a point—as I think is too often the case with citations to Vygotsky—then the reference strikes me as, at best, disingenuous, and at worst, unethical.

I next review challenges that face the 21st century reader in terms of problems with translation from Russian to English, the context that helped to shape Vygotsky’s career, inconsistencies across his many manuscripts and lectures, the difficulties involved in postulating what are essentially the invisible processes of human cognition, and the challenges that Vygotsky presents his readers by engaging in what he refers sardonically to as his “tedious investigations” into the problematic thinking of the leading theorists of his day.

PROBLEMS IN TRANSLATION

Reading extensively in Vygotskian scholarship seems critical to referencing him knowledgeably, given the challenges that Vygotsky’s writing presents to the 21st Century reader. Among these challenges is the problem that most of his readers, particularly in North America, encounter him through translation. In Daniels,

CHAPTER 1

Cole, and Wertsch's (2007) collection of international papers outlining a Vygotskian perspective, a number of the contributors are fluent speakers of Russian. However, even those whom I consider to be conversant with Vygotsky's original writing—those whose publications are rife with references to works of Vygotsky that are only available in Russian—are cautious about their grasp of both the language and the concepts.

Michael Cole, who has spoken Russian for many decades, who lived in the former Soviet Union during his internship with A. R. Luria, who served as co-editor and co-translator of *Mind in Society* (Vygotsky, 1978), whose leadership in the Laboratory of Comparative Human Cognition has helped to shape worldwide extensions of Russian psychology, who was the founding editor of the journal *Mind, Culture, and Activity*, and who has produced a number of foundational works in the Vygotskian tradition, wrote in response to my inquiry that “I have been writing jointly with [Russian Natalia Gajdamaschko] precisely because I feel so strongly the need for more than simple translation help in dealing with the metapsychology and national ethos that is the relevant context for understanding the local words” (M. Cole, personal communication). James Wertsch, who has spent considerable time in the Soviet Union, Russia, and many former Soviet states where Russian remains the *lingua franca*, and who has translated Vygotsky into English (e.g., Wertsch, 1981), also backs off from claims that his knowledge of Russian could be termed fluent (J. Wertsch, personal communication).

As someone whose only linkage to Vygotsky's Byelorussian² roots comes through my grandparents' origins in Vygotsky's hometown of Gomel, I read the qualifiers by Cole and Wertsch as cautions regarding any claims to understanding Vygotsky for those of us who speak no Russian at all. I rely on the translations of others, including those who express limited confidence in their own fluency. Most North American readers face this same problem, and so the challenges of reading a major thinker only in translation—especially translation that spans alphabets, cultures, concepts, and other formidable barriers—are thus worth reviewing here.

At present there are abundant Vygotskian texts available to the English language reader: six volumes of collected works in publication, additional books from his oeuvre available (e.g., Vygotsky, 1971, 1997; Vygotsky & Luria, 1993), key texts subjected to multiple translations, and a major project now underway in Russia to make his entire output available to English-speaking readers. Yet Vygotsky remains a complex figure and difficult scholar to grasp, and for a variety of reasons. In his “Translator's Foreword and Acknowledgements” to *The Collected Works, Volume 3*, Van der Veer says, “I have not attempted to improve Vygotsky's style of writing although it was at times difficult to refrain from doing so. It is clear that Vygotsky . . . never rewrote a text for the sake of improving its style and readability. Hence the redundancy, the difficulty to follow the thread of his argument, the awkward sentences, etc.” (p. v).

Meshcheryakov (2007) notes that Vygotsky produced 190 works within the ten-year span that comprised his career, many of which “were written very quickly,

in almost telegraphic style. Some works remain unfinished. It is certainly possible that some of the works that were published posthumously were not yet intended for publication” (p. 155). Daniels et al. (2007) assert that “It is difficult to reconcile some of the writing from the early 1920s with that which was produced during the last 2 years of his life. These rapid changes, coupled with the fact that his work was not published in chronological order, make synthetic summaries of his work difficult” (p. 2). So in addition to the difficulty of the ideas Vygotsky produced, his rendering of them into text made for challenging reading, no matter how well-prepared the reader is.

Even those with extraordinary fluency in Vygotsky’s work typically consult others to help with their understanding. Van der Veer, a native of the Netherlands, relates in his translator’s introduction to the *Collected Works, Volume 3* that “After I had translated the whole volume [from Russian to English], I carefully checked my translation against the German and Spanish translations of the same volume” (1997, p. v). With five languages at play in his effort to translate Vygotsky’s already-difficult prose and concepts (German, Spanish, Russian, English, and Dutch), Van der Veer further enlisted feedback from a host of colleagues (mostly European) in order to amend Vygotsky’s “sloppy” approach to citation by including appropriate references and footnotes to provide depth, detail, and clarification to the text.

Van der Veer’s (1997) meticulous approach to rendering Vygotsky into English suggests one key lesson to be learned from reading Vygotsky with any insight: that claims to understanding or implementing ideas must be undertaken with care and caution. I refer again to Van der Veer’s work in underscoring the importance of reading more than just excerpts (or summaries of excerpts, or summaries of those summaries in textbooks) from *Mind in Society* in claiming a Vygotskian perspective. In his review of an Italian translation of *Thinking and Speech* that post-dates any version of the text available in English, Van der Veer makes the remarkable point that

Unfortunately, neither in English nor in any other language has a reliable republication of *Thought and Language* been available. Leaving aside the questions that can be raised concerning the original Soviet 1934 edition (Vygotsky did not see the book in print and the editor, Kolbanovsky, changed some of the wordings to make the book more palatable for the ideological leaders), we know that the later 1956 and 1982 Soviet editions were marred by many mistakes and plain falsifications. All of the existing translations into English, or any other language, took these unreliable later editions as their point of departure. As a result, readers unable to read Russian or find a copy of the original 1934 edition have had, until now, no authoritative text of *Thought and Language* available. (p. 83; cf. Van der Veer, 1987, for a critical review of Kozulin’s 1986 translation of *Thought and Language*, which to Van der Veer is more properly translated as *Thinking and Speech*)

I am impressed that Van der Veer is now sufficiently fluent in at least six languages to read Vygotsky and then make this judgment; I am alarmed that he nonetheless states that “Vygotsky obviously preferred principled opponents,

CHAPTER 1

such as Pavlov, who made their own original contribution to science and invented their own scientific vocabulary to mediocre university professors, such as the present writer, who can only summarize what others have discovered” (2007, p. 37). If I’m not sufficiently daunted to learn that Van der Veer regards himself as a relative mediocrity, I cringe yet further when I realize that even though I’ve been referencing Vygotsky in my own work since the early 1990s, I probably am basing my understanding on inaccurate and incomplete translations. It becomes important, then, for me and no doubt others to engage with the work of Vygotskian scholars who have read his Russian texts in order to develop a clearer grasp of the ideas that I believe I am drawing on.

If problems of direct translation of Vygotsky’s work were not enough of a challenge, the fact that he did not necessarily pen his own texts presents another. His magnum opus, *Thinking and Speech*, was published in 1934, the year he died; he dictated sections from his sickbed, no doubt contributing to the text’s notorious difficulty (Zinchenko, 2007). Further, some of what is published under his name is taken from his student’s lecture notes or other stenographic records, undoubtedly with gaps in transcription and reformulation in expression (e.g., a set of lectures included in the *Collected Works, Volume 5*: “The Crisis of the First Year,” “Early Childhood,” “The Crisis at Age Three,” “The Crisis at Age Seven”; Vygotsky, 1998b). Making definitive claims, as do Gredler and Shields (2004), regarding what Vygotsky did and did not say, is thus a precarious undertaking that even the most reputable U. S. Vygotskian scholars should attempt with considerable caution and temperance.

THE CONTEXT FOR VYGOTSKY’S WORK

Vygotsky was born in 1896 and died of tuberculosis, which afflicted him throughout his short and fertile adult life, in 1934. When Vygotsky was 21, the Bolsheviks overthrew the Russian Provisional Government, and the Russian Civil War from 1917-1922 resulted in the creation of the Soviet Union in 1924. His decade-long career as a psychologist, then, took place concurrent with the launch of the Soviet Union and its foundation in a highly centralized Marxist philosophy.

Vygotsky’s mercurial ascension into the upper echelon of Soviet psychologists in this era was quite remarkable given his youth, his outsider status as a native of Byelorussia, and his Jewish heritage within the hierarchical and Balkanized social structure of Soviet life. During Vygotsky’s life, pogroms—organized genocide against Jews that was either sponsored by or tacitly allowed Eastern European governments—were still common, and caused many Jews from the region, including my grandparents and their two Byelorussian-born sons (two more, including my father, were born in New York City), to flee to other nations with less deadly policies. (See Kotik-Friedgut & Friedgut, 2008, for an account of Jewish influences on Vygotsky’s world view.)

Vygotsky, however, stayed in Byelorussia as a young man. Given the “unmerciful reality of everyday life in his hometown of Gomel during the civil war (1918–1922)” (Kozulin & Gindis, 2007, p. 332) that made existence precarious, the young Vygotsky, a 1917 graduate of Moscow University, took a teaching position in 1918 that enabled him to pursue his interests in literature and the humanities. He worked on his doctoral dissertation from 1915–1922, spanning the ages of 19 and 26. It was published posthumously as *The Psychology of Art*, and done so against his stated belief that it did not meet his standards for scholarship and therefore should not be published.

Yaroshevsky (1989) reports that Vygotsky wrote *The Psychology of Art* during a protracted illness, one of the many life-threatening bouts with tuberculosis that often led him to believe that his current work would be his last. Following a trip to study defectological institutes in Western Europe—those clinics that focused on the education of students whose learning was affected by blindness, deafness, and other losses or absences from normal functioning, including what was termed mental retardation³ (see Vygotsky, 1993)—he became so sick that he was ordered by doctors to take respite in a sanatorium. Bedridden and with no access to empirical research methods, Vygotsky (1971) nonetheless devoted his energies to scholarship. Drawing on his background as a teacher, he took the approach of a literary critic to conduct an astute reading of texts that produced a deep and careful analysis, the elucidation of criteria to guide the production and reading of literature, and the application of those criteria to texts. This initial work of scholarship was thus distinct from the empirical research that he conducted as a laboratory psychologist and pedologist during his mature period.

Once recovered from his illness, albeit temporarily as was always the case, Vygotsky gravitated to the Gomel Teacher Training College and became director of its psychological laboratory, an assignment that involved developing methods of psychological evaluation and supervising their administration in schools. At the end of the civil war, he relocated to Moscow and began an affiliation with the Section of Abnormal Children in the People’s Commissariat of Education and ultimately founded the Medical-Pedagogic Laboratory for the Study of Abnormal Children, which remains in place today as the Institute of Corrective Pedagogy. Kozulin and Gindis (2007) provide an account of Vygotsky’s career-long concern with special-needs children—those who fell under the aegis of *defectology*—who were in abundance in the early Soviet Union because, in addition to the normal percentage of such children in the population, many orphans and traumatized children survived the civil war and were in need of attention in the new Soviet Union.

The Soviet system has long been known for its brutal reinforcement of its ideology, and in its early days and through at least the 1950s monitored its psychologists with a vengeance (see Cole, Levitin, & Luria, 2006). Because of the excessive role he identified for individual development in social context, says Zinchenko (2007), “Vygotsky’s commitment to Marxist beliefs did not save him from criticism. His works were banned, denounced, and declared to be vicious and even evil.

CHAPTER 1

He was lucky to have managed to die in his own bed in 1934” (p. 213). Some believe that Vygotsky allowed himself to die rather than face interrogation, torture, and execution by the authorities over his departure from the state’s more exacting interpretation of Marx (M. Cole, personal communication).

Others, however, were not so fortunate to die of natural causes. In *Thinking and Speech*, Vygotsky did not reference Gustav Gustavovich Shpet, one of his mentors. Vygotsky likely avoided acknowledging Shpet because did not wish to bring upon himself the fate of Shpet himself, who was dismissed from his academic positions on multiple occasions and subjected to “brutal interrogation and execution in 1937” by Soviet authorities (Wertsch, 2007, p. 184). Shpet made the fatal error of exhibiting “freedom and dignity and the independence of his thought from Marxist-Leninist ideology, which at the time was growing stronger and stronger” (Zinchenko, 2007, p. 212). Shpet’s literary contemporary Mandel’shtam, notes Zinchenko, met the fate of many Soviets, no matter how seemingly benign their field of endeavor, who in any way defied the party position: He died in the Gulag in 1938.

Vygotsky’s death coincided with harshly punitive edicts issuing from Soviet leaders. The Pedology Decree of 1936 banned both prior and future work in the area of pedology, the study of child development (Shmeleva, 2002), which was the general area in which Vygotsky’s work fell. It is no coincidence that the Great Purge or Great Terror, in which Stalin took repression and persecution to astounding new levels, began the following year. The Decree declared pedology to be “false science,” eliminated university departments in the field, and dismissed or arrested its scientists. Ewing (2001) points out that the Decree was designed to purge the thinking that had produced tracking in Soviet schools through the assessment and classification of students by segregating students according to results of formal assessments. According to Ewing,

the Central Committee charged that pedologists’ “pseudo-scientific experiments” had called excessive attention to “the most negative influences and pathological perversions” in children, their families, and surrounding environment. Such testing meant that “an ever larger and larger number of children” were assigned to special schools after being categorized as “mentally backward,” “defective,” or “difficult.” In fact, the Central Committee declared, many of these children were perfectly capable of attending *normal’naia shkola* (normal schools), but once these labels had been affixed, they were considered “hopeless” cases. (p. 480)

The 21st Century North American reader might see these charges as quite reasonable and in accord with current critiques of tracked schools; in a unique turn of irony, these criticisms have especially emerged from those working from a Marxist perspective (e.g., Apple, 1982). The fact is, however, that rather than pathologizing those who lacked normal sensory functioning or who exhibited what was termed

mental retardation, Vygotsky (1993) argued against the notion that they were defective. Kozulin and Gindis (2007) review the “mechanistic mentality of the 1920s that explicitly compared human beings with mechanisms” (p. 333), which produced the belief that extranormative conditions (see Smagorinsky, 2011b) can be diagnosed and corrected.

Vygotsky (2003) resisted the prevalent mechanistic approach that children with special needs were defective and should be fixed. He instead viewed the question of their condition “as a sociocultural rather than an organic or individual developmental phenomenon” (Kozulin & Gindis, 2007, p. 334). Kozulin and Gindis find that

The essence of Vygotsky’s approach to remedial education is in addressing the secondary disability, that is, by countering the negative social consequences of the primary disability. Vygotsky believed that physical and mental impairment could be overcome by creating alternative but essentially equivalent roads for cultural development. By acquiring the psychological tools, disabled children transform their natural abilities into higher mental functions as do their nondisabled peers. (p. 345)

To Vygotsky (1993), rather than “fixing” the “defect” in the child, an educator should strive to minimize or eliminate any environmental factors that could amplify the challenging effects of the original point of concern. Vygotsky further sought to identify “alternative but equally equivalent roads for cultural development” through the provision of alternative psychological tools. The notion of providing broader means of mediation would accommodate the special needs and abilities of such children, requiring changes in the environment so that alternative paths to performance are available to suit the unique interests and abilities of people outside the normal range of social functioning.

In spite of this humane dimension to pedology, the movement was undermined by the presence of other ideological agendas. Political leaders, Ewing (2001) notes, were concerned that pedologists were “displaying ‘pedological distortions,’ succumbing to ‘class-hostile elements,’ and engaging in ‘wrecking’ activity with ‘anti-Leninist’ objectives” (p. 472), suggesting that the welfare of children was viewed and interpreted solely within the framework of the state’s ideology. The Decree’s recommendations, he argues, were made as part of a broader move toward more repressive policies and government intervention in both daily life and science in the Soviet Union.

This shift was no doubt influenced by the fearful and nativist response to the rise of Nazis in neighboring Germany, the Soviet regime’s effort to find a scapegoat for shortcomings of their school system, and a rise in esteem for the proletariat accompanied by a distrust of “elite” intellectuals, many of whom found themselves suddenly and fatefully threatened in Soviet life. Ewing (2001) continues:

CHAPTER 1

The Central Committee went beyond these complaints about school policies, however, by charging that pedagogical theory itself was based on “falsely-scientific and anti-Marxist foundations.” In particular, any suggestion that children’s fate was “determined” by “fixed” social or biological factors was condemned as directly contradictory to “socialist development,” which had “successfully re-educated people.” Such claims about environmental and hereditary influences allegedly revealed an “uncritical” borrowing of “bourgeois” theories intended to maintain the dominant positions of “exploiting classes” and “superior races” by perpetuating the “physical and spiritual doom of the working classes and ‘inferior races.’” (p. 480)

In this climate, reading Vygotsky and his colleagues was forbidden almost immediately following his death; indeed, the translation of *Thought and Language* into English in 1962 predated its availability in the Soviet Union by a dozen years. Kozulin and Gindis (2007) note, “For political reasons, any open discussion of Vygotsky’s ideas was practically impossible from 1936 to the late 1950s” (p. 334); and Daniels (2007) reports that Vygotsky’s book *Pedagogical Psychology* “was considered to be so politically unacceptable to the rulers of the Soviet state that one had to have a special pass from the KGB that would admit one to the restricted reading room in the Lenin Library where the book could be read” (p. 307).

Vygotsky no doubt embraced much about Marxism, but not enough to suit the state. The environment of fear in which psychologists of his day worked, in which ideology always trumped science, surely helped to shape his writing, no matter how courageous he might have been in taking on the orthodoxies of his day—challenging the work, for instance, of Pavlov, the reigning titan of the era. Of course, the 21st Century United States has seen no shortage of ideology superseding science in such areas as debates about global warming and stem cell research; has seen “elite” intellectuals fall into distrust during times of threat; and has seen fear of ominous outsiders contribute to a more closed society. The Soviet Union was not unique in these matters. Those in the U.S. who hold positions opposed to those of political leaders, however, face little prospect of execution or lifelong imprisonment under brutal conditions, as dissidents did throughout the Soviet era. Vygotsky’s life and career were conducted within this environment of deadly repression, coupled with his own continual bouts with his fatal illness. His remarkable scholarly output could conceivably be partly attributed to the urgency his life took on under the constant specter of death from within and from without, in conjunction with the genius that earned him the title The Mozart of Psychology.

INCONSISTENCIES WITHIN VYGOTSKY’S WORK

Like many whose work develops over time, Vygotsky was not consistent over the course of his career with some of his key constructs. He also appeared to contradict himself even when working on a single text. Wertsch (2007) argues that Vygotsky

was inconsistent in his account of *mediation*, a central dimension of his account of human development. Mediation in general refers to the manner in which thinking occurs by means of a medium, particularly speech; without such a medium, there is no means by which to think or communicate. Listening to and engaging in speech with cultural elders and veterans is what provides a person with a worldview and the specific language through which to characterize it, allows for new ideas to emerge through the process of expression and articulation, enables the development of signs that embody concepts, and provides the means through which people communicate with others and act upon their worlds (see Chapter 3). Wertsch (1991) and others have since expanded the cultural tool kit to include a host of nonverbal mediational means (cf. Smagorinsky, 2001; see Chapter 8), with the recognition that, as Luria argued, speech remains the “tool of tools” (Cole, 1996, p. 108).

Wertsch (2007) argues that the inconsistencies he finds in Vygotsky’s account of mediation follow from Vygotsky’s simultaneous grounding in what appear to be contradictory ontologies in European thought. On a broad scale, these ontologies or traditions are realized in speech, including the written speech found in cultural texts, and so serve as mediational means for whole fields of thought. The contradictory traditions that shaped perspectives for Vygotsky included one that produces “explicit” mediation (through observable means) and one that produces “implicit” mediation (through intangible means). These perspectives follow from what Wertsch (2000) has called “designative” or Enlightenment (or what Bakhurst [2007] calls “rationalist”) traditions, and “expressivist” or Romantic traditions, both of which had influenced European thought for centuries at the time of Vygotsky’s career (see Chapter 7). While Wertsch (2000) has argued previously that Vygotsky seemed unaware of this contradiction and never resolved it, in 2007 he looks for more synthesis, arguing that “the two forms of mediation can be seen as part of a larger theoretical framework when one considers some commonalities in the way he treated these forms. In particular, he viewed both forms of mediation under the general dictum that sign meaning develops” (p. 191).

Cole and Gajdamaschko (2007) further note that Vygotsky used *culture* in three distinct ways: as artistic and creative processes and products, as mediational means in human mentation, and as a term to characterize groups of people who have produced particular sorts of rationalist artifacts considered more “advanced” than the means developed by “primitive” people—a sort of cultural judgment that seems out of synch with Vygotsky’s other conceptions of culture (see Smagorinsky, 1995a; Chapter 3). Knowing the implications of each definition, argues Wertsch (2007), helps “reduce the incidence of bogus disagreement as we seek to harness Vygotsky’s conceptual system” (p. 192).

THE EPHEMERAL QUALITY OF VYGOTSKY’S CONCEPTION OF MIND

Bakhurst (2007) makes the point that “Vygotsky’s brilliant portrait of the mind’s place in nature far outruns the empirical data⁴ that prompted it. . . . [H]is legacy

CHAPTER 1

endures as a kind of prolegomenon to empirical psychology rather than an instance of it” (p. 57). Meshcheryakov (2007) further quotes Vygotsky as claiming that he had not yet fully defined his own terms, nor need he bother. Vygotsky wrote,

One might think that, in exploring the question of higher mental functions, it is necessary to begin by giving a clear definition of higher mental functions and indicating what criteria enable us to distinguish them from elementary functions. But it seems to me that a precise definition is not something that belongs to the beginning phase of scientific knowledge. Instead, I believe I can limit myself initially merely to empirical and heuristic definitions. (Vygotsky, 1982–1984, pp. 367–368; quoted in Meshcheryakov, pp. 160–161)

Indeed, Vygotsky’s work, as explained in his publications, reads more like a set of pilot studies than the sort of polished research published in 21st century journals.

Further, Vygotsky is driven to understand phenomena that are not visible, such as inner speech and how it comes into being. Inner speech refers to the cognitive processes that follow from the appropriation of both social speech and its ideological framework such that one adopts cultural means of mediation (particularly that provided by speech) for self-regulation, ideas, and other means of acting in the world in accordance with social standards and practices. The endeavor to name inner speech and understand its workings is entirely inferential and only indirectly supportable through empirical evidence.

In order to accept Vygotsky’s theory of the development of inner speech—to some, the cornerstone of his broader argument that learning to think is a function of appropriating speech-based concepts through cultural practice—one needs to accept the plausibility of his assembly of evidence from a broad range of observable phenomena, all of which ultimately rest on the acceptance of a web of related inferences based on research that does not quite meet 21st century standards for reporting findings. Perhaps the lack of empirical support in his own work, at least as reported in his writing, has contributed to the attempt by current scholars to conduct new investigations using many decades of accumulated knowledge, new technologies for collecting and analyzing data, and continued insights from the growing body of Vygotskian studies.

Zinchenko (2007) describes both Russian traditions for conducting scholarship and the elusive quality of the sociocognitive processes that Vygotsky sought to describe. Both Zinchenko and Vygotsky freely draw on the *belles lettres* to illuminate aspects of a cultural theory of the development of consciousness. Poets, psychologists, and philosophers have been equally perplexed and metaphoric about the nature of thinking and speech. I gather from my reading of Vygotsky and Zinchenko, and also from U.S.-based researchers such as Cole (1996) who work in this tradition, that Russian scholarship has been historically, and remains, more ecumenical in its search for viable sources than is customary in most U. S. scholarship. Zinchenko (2007) includes references to Russian poet and novelist Boris

Pasternak, U. S. and British poet T. S. Eliot, Russian poet Nikolai Zabolotsky, Russian poet and playwright Aleksandr Pushkin, and others from the world of arts to attempt to capture the more ephemeral qualities of how people think. After quoting Pasternak at length, Zinchenko notes that

No matter how far we move toward unraveling this mystery, we need to realize that there is an element of magic in the creative act. According to Pasternak, this act is “the tangible sorcery or alchemy, which makes the work of art seem to be an accidentally broken off piece of the very density of being or form making essence of being rather than reflection or descriptions of life” (Pasternak, 1990, pp. 366–367). It is a different question whether we can see this sorcery, whether we will be able to penetrate, *see* behind these purest forms the fringes of their internal forms, their sense and meaning. This is already an issue of our aesthetic culture or taste, an issue of the richness of poorness of our own inner form. (p. 241)

In relying on literary expression to make his points and openly acknowledging the mysterious and magical nature of his enterprise, Zinchenko accepts the evanescent qualities of the workings of the mind, yet forges ahead nonetheless. “[D]espite the possible, sometimes striking depth and transparency of thought, it is heterogeneous and syncretistic in its origins,” he says. “All the forces of the soul participate in its birth” (p. 239). Now, that’s one difficult claim to support empirically. And yet if one turns to poets for plausible, if not verifiable, truths about the world, it provides some insight into the challenge of developing a comprehensive psychology of the human mind and its development in its historical, social, cultural, and physical context—a context that, as the reciprocal notion of context suggests, each human in turns helps to construct.

I infer that in an explicitly atheistic, materialist, Marxist culture and the psychological theories that emerged from it, its architects cannot escape the need for a degree of mysticism in their formulation. Even with an effort to ground their psychology in as scientific a foundation as possible, Vygotsky and his colleagues and descendents must locate the discipline’s “soul.” In Soviet Moscow, religion was not a possible source of the more mystic and magical elements of an explanation of how people and their minds come into being, function, and develop. Poetry, I infer from my remote perch, was engaged with as a way to explain such acknowledged mysteries.

Anyone who knows me knows that I am not endorsing religion here (see Smagorinsky, 2011b, for the possibility that those on the autism spectrum, where I fall, are often atheists). Rather, I am making the point that at its least visible levels, mind remains an evanescent construct that can only take shape for many through non-scientific means. I take comfort in the fact that some of the most brilliant minds of the last century have had no more success in empirically explaining the human mind than I have; and at the same time, this mystic hole at the bottom of Vygotsky’s theory

CHAPTER 1

gives me and others something to attempt to continue to fill, if not sink into entirely, as we take up his unfinished project, whether we do so from pragmatic or anagogic methods and motivations.

VYGOTSKY'S "TEDIOUS INVESTIGATIONS"

Vygotsky's writing is characterized by what he wryly refers to as his "tedious investigations" into extant views (1999, p. 119). In order to create space for his own revolutionary ideas, he first needed to unpack and refute, in excruciating detail, the ideas of those he sought to displace in accounting for human mentation. This tendency can test the patience of even the most devoted readers of Vygotsky as they endure his meticulous repudiation of scholars whose work dominated the field through the 1930s.

In a lengthy section of *The Psychology of Art* titled "Critique," Vygotsky (1971) dedicates three chapters to his dissatisfaction with contemporary scholarship in the areas of art as perception, art as technique, and art as psychoanalysis. Fundamentally, Vygotsky critiques the "unilateral intellectualism" of art psychology in his day, in which "Art requires brain work; all the rest is incidental in the psychology of art" (p. 32), particularly the emotional substance that to Vygotsky is central. He rejects the idea that an art form "can be reduced to processes of perception, or to pure brainwork" (p. 33).

Vygotsky's refutations of his antecedent and contemporary thinkers permeate his review of the fable, the short story, and the tragedy, which he undertakes in order to establish what distinguishes a text as a work of art. One must again wade through his exhaustive analyses of those whose views he considers to be based on inappropriate premises. Although on occasions critics such as G. E. Lessing (1864) are "quite right" and "quite correctly" make certain points (p. 98), Vygotsky inevitably points out "the weakness of the positions which Lessing tries so desperately to defend" (p. 108). Lessing is but one of many critics whose ideas Vygotsky outlines in detail and then rejects as hopelessly misguided. The modern reader must approach these investigations with a certain patience as the young Vygotsky dismisses what he views as both significant and flawed literary criticism of his day in order to outline a psychology of art that will inform current thinking about the psychology of both art and mediated thinking in general.

Vygotsky also referenced, without explanation, contemporaries whose careers remain obscure for the 21st century reader. After, for instance, a lengthy discussion of views of art based on theories of perception, he concludes,

Thus, anyone endeavoring to investigate the history of the Russian intelligentsia on the basis of the Chatskiis and Pechorins risks remaining with the completely fallacious ideas and understandings of the phenomena under study. With such a brand of scientific investigation we may hit the target no more than once in a thousand times. This, more than any theoretical

considerations, testifies to the groundlessness and superficiality of the theory whose fine points we have just discussed. (p. 49)

When I came across this passage, I had to backtrack through the chapter, and then consult the book's index, to discover that Chatskii and Pechorin have not previously been mentioned by Vygotsky, at least not in the 1971 English translation. Internet searches reveal that Pechorin is the main character of the Mikhail Lermontov⁵ novella *A Hero of Our Time*, written in 1839 and revised in 1841. Lermontov is mentioned once before in *The Psychology of Art*, but for a poem⁶.

Identifying Chatskii was just as difficult. Chatskii is the protagonist of A. S. Griboedov's 1824 play *Woe from Wit* (one of many translations of the title); neither Griboedov nor his play is mentioned elsewhere in the MIT Press translation of *The Psychology of Art*. Vygotsky references this character in the final pages of *Thinking and Speech* (Vygotsky, 1987a, pp. 281–283) in discussing Stanislavsky's view that actors must discover their affective-volitional core in order to convincingly motivate the characters they portray (cf. Burkitt, 2002) and to argue that, because thinking is mediated by cultural tools such as speech—"thought is never the direct equivalent of word meanings" (p. 282)—another person's thoughts can only be inferred by understanding "the most secret internal plane of verbal thinking—its motivation" (p. 283).

Chatskii was thus a common enough cultural reference for Soviets of his era for Vygotsky to reference him both early and late in his career. Perhaps these allusions were better situated in Vygotsky's original text, but did not survive Scripta Technica's editorial cuts for the English translation published by MIT Press. The modern U.S. reader, or at least this one, has no such heritage or complete text to employ in recognizing the import of these characters in Vygotsky's discussion, making his explorations of his contemporaries perplexing in many ways to modern readers from outside the Soviet sphere.

The young Vygotsky, however, only set the stage for the mature Vygotsky. Throughout his work he presents readerly challenges by taking a contemporary or antecedent thinker, outlining his or her views, and then saying something along the lines of, "This explanation is clearly unsatisfactory" (e.g., 1987, p. 202) and providing his alternative interpretation. The dutiful novice reader often, as I did when first began reading Vygotsky, reads his account of a contemporary with pen in hand, underlining and producing marginalia to grasp the ideas, only to have Vygotsky then dismiss these views as pathetically ill-advised.

The scholars he eviscerates often rank among the most celebrated thinkers of the era: Freud, Piaget, James, Lange, Pavlov, and countless others. Readers must learn to recognize this technique of review-and-debunk and not get too bogged down in mastering the concepts outlined, only to have them dismissed as laughably and pathetically foolish and uninformed. Vygotsky's "tedious investigations" served a critical purpose when he addressed his contemporaries in the 1920s and 1930s because he needed to take on the reigning assumptions of his time in order to offer

CHAPTER 1

his own vision. Such analyses are less important to the 21st century reader except to provide the historical context for Vygotsky's revolutionary ideas. Being aware of his analytic method can spare such readers considerable frustration in attempting to grasp Vygotsky's cultural-historical psychology.

MOVING ON IN SPITE OF THE CHALLENGES

I have outlined a daunting set of challenges facing the 21st Century North American in appropriating Vygotsky's ideas for newly-undertaken literacy research. In the following chapters I continue to work within these problematic conditions as I attempt to lay out a Vygotskian framework for studying literacy as a socially-situated, culturally- and historically-grounded form of mediated action that shapes human development.

NOTES

- ¹ I found the term "genetic" extremely confusing when I first began reading Vygotskian scholarship, because to me it sounded like a reference to biological development due to what appeared to be the root of "gene." The Russian term from which it derives, however, is less concerned with fixed, gene-based factors than with all facets that contribute to human development. Significantly, Vygotsky opposed Piaget on the matter of whether human development proceeds according to biologically unfolding stages, or as Vygotsky proposed, is shaped environmentally through cultural practice.
- ² I use Byelorussia to characterize the nation/state prior to 1990; it was renamed Belarus following its achievement of independence concurrent with the collapse of the Soviet Union.
- ³ The terms translated as "defectology" and "mental retardation" sound harsh to ears attuned to 21st century sensibilities. I use them here as they were translated from their original context, without presentist judgment about their sensitivity.
- ⁴ Throughout this book I use the formal convention of treating "data" as a plural term and "datum" as a singular term.
- ⁵ Lermontov, who died at age 26 from a gunshot wound suffered during a duel, is considered by many to be Russia's greatest poet following Pushkin, who by coincidence also died following a duel at age 37.
- ⁶ The translation in *The Psychology of Art* suggests that the poem may be "Sail," although I can only guess. See <http://www.mostov.com/sail/> for an example of how this poem may be translated in seemingly infinite ways.

CHAPTER 2

KEY TERMS AND CONSTRUCTS IN ADOPTING A VYGOTSKIAN PERSPECTIVE

In this chapter I review key terms in Vygotskian scholarship and their conceptual basis in literacy research. The position I am outlining is based on the assumption that a person's frameworks for thinking are developed through problem-solving action carried out in specific settings whose social structures have been developed through historical, culturally-grounded actions. This perspective focuses attention on the predominant value systems and social practices that characterize the settings in which the learning of literacy practices unfolds. Undoubtedly, the value systems in which I have been embedded, and in which I have embedded myself, contribute to my interpretation of these constructs.

I next elaborate the key concepts of *settings*, *signs and tools*, *appropriation*, *mind*, and *concepts*, and subcategories of terms and their related concepts as they apply to literacy research. These terms play a prominent role in the chapters that follow. A glossary at the end of this book provides pithier accounts of each.

SETTINGS

The contexts for human development provide the means of mediation through which people appropriate ways of thinking and acting in the world. Borrowing terms from Sarason (1972), Wertsch (1985), and others, I refer to the contexts that mediate the development of consciousness as *settings*. Lave (1988) makes a distinction between an *arena*, which has visible structural features, and a *setting*, which represents the individual's construal of that arena. A school-as-arena has properties that are indisputable (e.g., desks may be bolted to floors or students may sit at tables; metal detectors may be installed at external doors). As a setting, the school building and its activities may be construed by individuals in particular ways through their schematic representations of the situation.

Thus, while two teachers may work at the same school-as-arena, they may have distinctly different understandings of the school setting based on their own goals, histories, and experiences in the institution. One may construct chairs that are bolted to the floor as a way to fix students' attention on the front of the classroom where it belongs and thus promote learning; another may view these same bolted chairs as a deterrent to flexible arrangements that enable students to form cooperative learning groups that promote learning. To understand schooling from a

CHAPTER 2

Vygotskian perspective, it is necessary to take into account the history that each participant brings in his or her construction of the setting (Smagorinsky, 2010; Smagorinsky & O'Donnell-Allen, 1998a). The question of individual history and identity within settings, then, becomes part of the consideration of their dynamic and evolving nature. I next detail the aspects of settings that I see as relevant to understanding action that is mediated in three ways:

- *socially* (i.e., by immediate human interactions, such as those involved in particular classroom episodes, e.g., when a classroom is conducted according to a teacher's preferred pattern of interaction, such as a lecture or discussion);
- *culturally* (i.e., by human interactions that are grounded in recurring patterns among people over time, such as those involved when routines and rituals are invoked, e.g., when middle-class turn-taking is indicated by students' raising of hands to index their wish to take a public speaking turn); and
- *historically* (i.e., by the precedents through which cultural and social values have been developed over time, such as those involved in the establishment of guiding conventions, e.g., when the values of the white middle class have a history of being instituted as the predominant social and cultural practices that determine school decorum).

Motive

Settings encourage particular social practices that presumably participants will come to see as worthwhile means to a better future, grounded as they are in cultural-historical activity that has produced the present from which they emerge. Such settings provide *constraints*—i.e., those limitations that help to focus activity on what is most productive toward cultural ends—and *affordances*—i.e., those factors that promote opportunities toward those same ends—that channel, limit, and support learners' efforts to adopt the prevailing social practices.

I began using the term “channel” mistakenly by improperly recalling and referencing Valsiner (1998), who uses the term “canalize” to refer to the manner in which activity is functionally and directionally shaped by both tacit and explicit means. I have come to prefer my corruption of “channel” because I find “canalize” to be a bit clunky, and so have used “channel” in my own work synonymously with Valsiner's term. I also see it as a bit more flexible etymologically in that a canal is necessarily a human construction, while a channel may be created by either people or nature. While Vygotsky and the field of cultural-historical psychology have been primarily concerned with human social constructions, geography has often figured into the development of societies in terms of people's need to adapt to local conditions and develop attendant cultural practices (e.g., the centrality of fishing in largely coastal Panama vs. the need to develop agricultural practices in the landlocked Republic of Niger, and the cultural practices that emerge from such essential activity).

Central to a setting is the *motive* or outcome implicit in the setting, one toward which action is channeled. Although I have found other definitions for such terms as motive, goal, object, and so on throughout Vygotskian scholarship, I find that Wertsch's (1985) interpretation of Leont'ev's (1981) notion of the *motive of a setting* to be useful in my conception of literacy practices and so rely on his account here and elsewhere. Wertsch himself acknowledges that others might not agree with his view of motive; I accept it while recognizing that my lack of understanding of Russian makes me reliant on the interpretations of others whose perspectives I have grown to trust.

According to Wertsch (1985), "the motive that is involved in a particular setting specifies what is to be maximized in that setting. By maximizing one goal, one set of behaviors, and the like over others, the motive also determines what will be given up if need be in order to accomplish something else" (p. 212). This motive provides a setting with a sense of purpose that implies a code of suitable conduct. The motive of a setting thus refers to the overall purpose of action within it, even if that motive might be contested, ignored, abandoned, or otherwise eschewed by some within the setting. A setting's motive may be disputed or simply elided by those whose *goals*—those more local forward-directed plans of individuals or subsets of people—suggest a different course of action and social future.

A setting has a cultural history through which community members have established specific outcomes that guide action within the setting. The condition of having a cultural history requires that a setting involve "two or more people com[ing] together . . . over a sustained period of time in order to achieve certain goals" (Sarason, 1972, p. 1). Sarason, who is interested in the creation of *new* settings, foregrounds the ways in which people conceive, design, and enact practices and artifacts designed to sustain their newly-formed relationships and purposes for coming together; and the ways in which they typically overlook or underestimate factors that may work against their goals. Wertsch (1985), in contrast, focuses more on how *existing* practices and artifacts constrain and afford new action, saying that "a setting guides the selection of actions and the operational composition of actions, and it determines the functional significance of these actions" (p. 212).

Their different focuses aside, both Wertsch (1985) and Sarason (1972) regard the condition of *sustained relationships* as central to a setting. These relationships are mediated by tools and signs (which I review in a later section of this chapter) for which participants develop over time a general agreement over purposes and meaning. Without widespread agreement on the motive and mediational means, a setting could not exist. Central, then, to the existence of a setting is the condition that action within settings is goal-oriented—or more broadly speaking, motive-oriented—and that a set of consistently employed practices and artifacts exists to mediate development toward those ends.

Consensus on an overriding motive, however, is problematic. Multiple and competing desired outcomes often coexist within a setting, though typically some predominate. The overriding motive for a setting, then, provides channels that

CHAPTER 2

encourage and discourage particular ways of thinking and acting. The Soviet Union itself provides a clear example of this phenomenon. The state had official positions regarding the motive of Soviet society, driven by Marxist principles that quickly became subsumed into totalitarian rule and thus were deeply compromised, given that pure communism's ultimate theoretical outcome is the elimination of the state altogether. The government used brutal means of coercion to maintain this motive, which was nonetheless contested by schismatics who either fled, were imprisoned, were executed, or were forced to live double lives under the guise of compliance. These dissidents nonetheless persevered and maintained subcommunities of practice based on religion, ideology, and other driving perspectives. The official motive of the setting, established and reinforced by those with military power, dominated the Soviet state. Dissident motives were oppressed, even as those who opposed the state maintained their goals to produce a more open society.

From the perspective of literacy development, settings may have motives that are defied or resisted by those with competing goals. A school might be run by administrators who value a cultural-heritage approach to education that inculcates students with Western perspectives on the arts, history, literature, science, and other disciplines. Yet individual teachers within this setting and its officially sanctioned motive might use methods grounded in Deweyan progressivism, Freirean critical literacy, or other epistemologies that contest the overriding values of the institution or are even explicitly designed to undermine them. Soviet-style crack-downs might suppress such teaching or eliminate the teachers entirely, or various means of dissent or freedom might be allowed to sustain these practices. In either case, the motive of the setting might be tacit or explicit and even contractual, which cannot entirely eliminate other goals from developing that point in other directions toward other sorts of social futures.

Fine (1987) has coined the term *idioculture* to describe cultures-within-cultures (cf. Cole, 1996; Smagorinsky & O'Donnell-Allen, 2000), and I've adapted it to account for *idiosettings*, i.e., setting-within-settings. Within any given culture and its motive, local cultures may operate within the larger social structure yet be negotiated in ways that take a different direction from that suggested by the predominant motive of the setting. The presence of idiocultures or idiosettings helps to account for the ways in which subcultures may operate within larger settings. How effectively and with what recourse they function is a situational matter.

Bakhtin and Dialogism

Bakhtin's (1981, 1984) construct of *dialogism*—frequently used by Vygotskian theorists (e.g., Wertsch, 1991) to help account for the ways in which people appropriate frameworks for thinking—is relevant to the effort to understand how people learn how to think in relation to the cultural practices of those who surround them in settings. This term, along with its associated constructs of *heteroglossia* and

multivoicedness, refers to the ways in which all new utterance involves a revoicing of a previous utterance. Thinking and speech are, in this sense, always derivative of prior thinking and speech, even as new juxtapositions of previously unpaired ideas may produce new, and thus seemingly creative, ideas (John-Steiner & Meehan, 2000).

Many prefer Bakhtin's emphasis on the *utterance*—that is, a unit of speech that could range from single words to larger assemblies of text of presumably indeterminate length—to Vygotsky's emphasis on *word meaning* as the unit of analysis for understanding cognitive development. As I will review in Chapter 8, many others dispute the exclusive emphasis on speech altogether in considering the mediational means through which consciousness develops. Differences in emphasis may well follow from theorists' disciplinary orientations; in this case, of psychology (Vygotsky) and philosophy and literary criticism (Bakhtin).

Although they were contemporaries (Vygotsky lived from 1896-1934, Bakhtin from 1895–1975) from the same nation, they likely never met. Vygotsky was a Jew from humble beginnings in Gomel, Byelorussia who ascended quickly through the bureaucratic apparatus that controlled education and psychology in Moscow, where he spent the bulk of his career after his initial teaching job in Gomel. Bakhtin came from a wealthy family of the noble ranks in Oryol, Russia, yet spent an itinerant life as a teacher, bookkeeper, and practitioner of other literary professions. He lived in a variety of cities in the Western Soviet Union, only settling in Moscow for a brief period after Vygotsky's death. During Vygotsky's career in Moscow, Bakhtin lived in Leningrad, in exile in Kazakhstan following accusations of being affiliated with the banned Russian Orthodox Church (and only spared a worse fate because of illness), and in the small cities of Kustanai, Saransk, and Kimry. What Vygotsky and Bakhtin shared, even with such different lives and trajectories, was a history of poor health (Bakhtin required a leg amputation due to bone disease in 1938, four years after Vygotsky's death; had his other leg amputated in 1969; and ultimately died of emphysema following a lifetime of heavy smoking), repression by authorities, and intellectual brilliance that followed Marxist principles yet was nonetheless viewed as subversive by The Party.

More germane to my current discussion is the fact that Bakhtin's scholarship was grounded in philosophy and literary criticism, while Vygotsky, after his doctoral dissertation on the psychology of art in primarily literary works, became more of a laboratory psychologist. Vygotsky had ready audiences through his position as a lecturer in Moscow, while Bakhtin led a more obscure life, relying on handwritten manuscripts that, in times of desperation, he sacrificed as rolling paper for the insatiable tobacco habit that ultimately led to his death.

Of course, there are many more details that both join and separate these two oft-linked Soviet theorists (see especially Wertsch, 1991). Of relevance to the points I'm trying to make here is Bakhtin's focus on longer texts of speech, including whole novels and the genres in which they are situated. Vygotsky was more concerned with the meaning of spoken or written words of briefer duration, perhaps the single word with which his work is often associated. Even if one

CHAPTER 2

accepts this difference, which I believe follows at least to some extent from the sorts of texts available to them in their disciplinary fields, their ideas are related in important ways in terms of the manner in which the word or utterance does not appear out of thin air but instead is part of a larger dialogue or ongoing discourse.

U. S. literary critic Kenneth Burke was born in 1897, making him a contemporary of both Vygotsky and Bakhtin and thus part of the *Zeitgeist* that advanced the notion of cultural-historical, dialogic thinking¹. Burke illustrates, without naming Bakhtin, the notion of dialogism through his metaphor of a parlor conversation:

Where does the drama get its materials? From the "unending conversation" that is going on at the point in history when we are born. Imagine that you enter a parlor. You come late. When you arrive, others have long preceded you, and they are engaged in a heated discussion, a discussion too heated for them to pause and tell you exactly what it is about. In fact, the discussion had already begun long before any of them got there, so that no one present is qualified to retrace for you all the steps that had gone before. You listen for a while, until you decide that you have caught the tenor of the argument; then you put in your oar. Someone answers; you answer him; another comes to your defense; another aligns himself against you, to either the embarrassment or gratification of your opponent, depending upon the quality of your ally's assistance. However, the discussion is interminable. The hour grows late, you must depart. And you do depart, with the discussion still vigorously in progress. (1941, pp. 110–111)

Discourse in this sense is always a conversational turn directed to others, even if they are only anticipated or imagined. Dialogism produces the discourse of a particular community, such as educators who endorse the cultural heritage tradition; those who critique this tradition through such approaches as critical theory; or those who provide an alternative to this tradition through such approaches as progressive pedagogies that democratically engage students in joint activity designed to inquire. Such discourse typically becomes normalized in terms of its ideology when its practitioners' historical, ongoing conversation ceases to question certain axioms, a process that in turn marginalizes other perspectives on the topic.

Thus, for instance, in ongoing conversations in the U. S. about character education among people for whom a sacred text (e.g., *The Holy Bible*) prescribes morality, it may be axiomatic that character is composed of a set of fixed traits (e.g., honesty, responsibility) that are invariant and may be instructed to youth and sinners through didactic methods. Those who believe that notions of character are relative, situated, and locally constructed are marginalized and dismissed among such discussants when those who argue for "universal" notions of character (e.g., Lickona, 1991) dominate the debate (Smagorinsky & Taxel, 2005).

Dialogism may be exhibited explicitly (e.g., as part of an actual conversation) or through what Bakhtin (1984) calls *hidden dialogicality* in which texts are produced

as conversational turns that take into account prior texts, even if those texts are not present or acknowledged (Wertsch, 1999). In this sense texts are *emplotted* (Ricoeur, 1983) within a continuum of narratives or lines of argument. A text or utterance never stands alone, but is always in conversation with prior and anticipated conversational turns, including whatever historical corrections are necessary in order for the story to remain honorable or meet some other standard for public enshrinement. For example, U. S. history textbooks elide contradictions and uncomfortable facts in producing a grand narrative of the U. S. as a leading moral force in the development of society (Loewen, 1996). Similarly, Russian textbooks were rewritten following the fall of the Soviet Union to produce versions of historical events that met new political exigencies for the restored Russian state, with official accounts of the Russian Civil War and World War II revised to reflect new narrative needs (Wertsch, 1999).

In the current character education movement, narratives are presented about the bygone days of virtue and modern decline of morality, the story of the United States' civic heritage and its current demise, and other efforts to "return" to what one state character education leader calls "a saner, simpler time in history," in spite of the legacy of slavery by both the fabled Founding Fathers and many other landowners, a long history of lynching of Black and occasionally Jewish citizens, a century of Jim Crow laws that made life for African Americans cruel and bleak, the denial of women the right to vote, the danger of workplaces for powerless employees and the accompanying resistance to reforms by management, and other problems historically imposed on the lives of the defenseless people in his state.

As suggested by these qualifications, these narratives of halcyon days of yore are, as Loewen (1996) points out, *selective*, presenting the United States according to its most glorious mythology and ignoring its many contradictions and those events that might promote feelings of shame and anger. This selectivity was exhibited in the 2011 reading of the Constitution, initiated by a new wave of conservative politicians elected to the U. S. Congress, which they edited to eliminate its language characterizing Black people as only 60% human and thus maintain the illusion that the Founding Fathers were men of immaculate character, a perspective undermined by histories that reveal them to be just as vain, arrogant, and otherwise flawed as 21st century politicians are (e.g., McCullough, 2001).

Like the notion of dialogism, *intertextuality* refers to the ways in which any newly produced texts derive from prior texts. While dialogism refers to the fact of this ongoing conversation, intertextuality refers to the forms and social practices from which new texts take shape. Intertextuality thus helps account for the enduring traits of discourse as well as the variations made in conventional forms by particular communities of practice. Bakhtin's notion of *heteroglossia* asserts that these intertextual links rarely come in pure form but are reformed and repurposed as they become hybridized through their intersections with other discourses and social languages, at times in contradictory ways. In the literacy arena, for instance, hip-hop culture is growing in recognition as a distinct genre based in African

CHAPTER 2

American experiences, with attendant stances, ideology, tropes, and other recognizable features (see, e.g., Hill, 2009). At the same time, German rappers such as Fler, Bushido, and Sido have adopted American gangsta-style hip-hop, recasting the conventions in lyrics that glorify Aryan supremacist violence that would destroy the very culture whose customs they employ.

The contributions of Bakhtin point to the dialogic and intertextual nature of all utterance. The processes involved contribute to ideological perpetuation as individuals revoice perspectives they have appropriated in prior settings. The availability of multivoicedness undermines the notion that settings are fatalistic, given that it provides other possibilities for individuals and groups, as is evident in political uprisings throughout history.

The History of Settings

The very existence of structures such as different settings for literacy—from Montessori schools to military schools to spoken word collectives—is rooted in history. This perspective calls attention to the cultural goals of development (*telos*) and the ways in which environments are structured to promote development toward these goals (*prolepsis*) (see Cole, 1996; Wertsch, 2000) to produce its *eidos*: the formal sum of its culture available through its value systems, intellectual life, sense of purpose, organization, and social practices. Both *telos* and *prolepsis* contribute to the motive of the setting, often in tacit ways. Cultures are infused with notions of ideal personal and societal futures that are promoted through the ways in which cultural activity is structured. Understanding the kinds of culturally defined futures that motivate people's activity and the sorts of tools they develop in order to help mediate one another's progress toward those futures is a central feature of a Vygotskian approach.

A teleological consideration is inextricably tied to the notion of *progress* in that it specifies or suggests an optimal outcome or destination for a group of people. This group may exist on a national level (e.g., the Soviet belief that communism was a more advanced form of society whose superiority would inevitably cause capitalism to ultimately fall by the wayside), on a spiritual level (e.g., the belief within the Baptist Church that faith, and not earthly works, will lead to salvation), on a subnational level (e.g., the different trajectories written into law for Gay, Lesbian, Bisexual, Transgendered, and Queer/Questioning (GLBTQ) people in the states of Arizona and Massachusetts), and within smaller entities of any size (e.g., the individualized, child-centered path of development in a Montessori school vs. the cultural heritage indoctrination emphasized in many other types of schools based on Hirsch's [1987] notion of *cultural literacy*).

The notion of *telos* is thus often explicit in founding documents and other sorts of charters and mission statements. *Prolepsis* is less tangible, referring to the invisible and subconscious ways in which activity is directed toward particular ends. Rommetveit (1974) used the term to describe, as Wertsch (1985) summarizes his work,

a communicative process whereby individuals must identify others' implicit assumptions in order to interpret their utterances. Rather than viewing communication as a process that presupposes fixed and shared background knowledge and involves the transmission of information, Rommetveit suggests that a listener often must create background knowledge as part of "what is made known" in communication. That is, an understanding of the activity setting emerges for the junior participant as a "by-product" of communicating in it. (p. 216)

Rommetveit (1974) describes here the tacit understandings that make clear communication possible. I draw on Cole's (1996) adaptation to broaden this aspect of interpersonal communication to a whole society's tacit channeling of broad cultural activity toward a common teleological endpoint. Wells (1986), without using the term, describes prolepsis as follows:

As mature members of a human culture, parents have quite specific ideas about what sorts of behavior have meaning and so, in interpreting the baby's gestures, noises, and so on, parents assimilate them to behaviors that they themselves find meaningful. The meanings attributed are therefore *cultural* meanings and, in their responses, parents provide culturally appropriate feedback that has the effect of shaping the infant's behavior towards what is culturally acceptable and meaningful. (p. 35; emphasis in original)

An example of how prolepsis works comes from Rubin, Provezano, and Luria (1974), who studied adults interacting with babies in a nursery. Regardless of the child's actual genitalia, which were hidden beneath the diapers, those babies wearing pink diapers were treated sweetly and gently, while those wearing blue were bounced more robustly and spoken to in louder and more vigorous tones. The social future of these infants was thus projected into their current treatment, in turn making a conventionally gendered future more likely. Rheingold and Cook (1975), studying how parents prepare homes for babies following their initial introduction to the world in hospitals, found that parents often both anticipate and help to construct their children's gendered futures, decorating boys' rooms with transportation motifs and other worldly pursuits and girls' rooms with dolls, lace, and similar domesticalia. The shaping of children's environments by adults projects a life trajectory that is often reinforced across the many settings in which young people are socialized into appropriate adult roles. These projections undoubtedly contribute to the dissonance experienced by GLBTQ youth when awakening to other sexual possibilities that might lead to *gender dysphoria*: the troubled feelings that may follow from how their orientation is perceived and responded to by others.

Through the process of telos, society perpetuates its practices and truisms, at times to the detriment or limitation to some groups within it, such as GLBTQ residents of U. S. Southern Baptist communities that adhere to the doctrine that "Christians should oppose . . . all forms of sexual immorality, including . . .

CHAPTER 2

homosexuality” (Rogers, 1999). As Cole (1996) describes the proleptic means by which cultures channel their inhabitants toward particular sorts of social futures, “when neonates enter the world they are already the objects of adult, culturally conditioned interpretation. . . . They come bathed in the concepts their community holds about babies just as surely as they come bathed in amniotic fluid” (pp. 183–184). The notion that people are products of culture, then, refers to the ways in which society embeds its assumptions in daily social practice, thus codifying the world in particular ways and suggesting the naturalness, appropriateness, and often inevitableness of conventional ways of living within it. The world thus coded typically establishes authoritative ways of reading meaning into signs that privilege one perspective over another (cf. Kalantzis & Cope, 2000; Luke, 1988; Michaels & Sohmer, 2000; Street, 1984).

The notions of telos and prolepsis are inevitably implicated in the developmental approach undertaken by Vygotsky. The idea of development, however, is problematic, suggesting a relatively clear path toward a desired, positive, or optimal sense of completion. Wertsch (1998) complicates this notion by posing the question, *Development toward what?* This inquiry must be part of any consideration that assumes that action is mediated in service of a life trajectory.

Many Vygotskian researchers find Piaget's theory of biological development, which he developed based on studies of his own children, to be culture-specific and thus parochial in its view of human potential. Hundeide (1985), for example, questions the universality of the cognitive stages described by Piaget and the specific optimal developmental outcome toward which they lead. She says,

When we study other cultures with different institutions and episodic structuring of reality, we may find that the definition required for the proper execution of certain mental operations that are of interest to us are *outside the episodic repertoire of that culture*. In such cases, an orthodox Piagetian diagnostician runs the risk of diagnosing an entire culture as “preoperational.” (pp. 310–311; emphasis in original)

Her insight could well describe the problem created by Vygotsky's collaborator and student A. R. Luria in his studies of Islamic cultures in Kazakhstan, in which he characterized them as “backward” because of the responses they gave to Western item sorting tasks (see Chapter 3). From a Vygotskian perspective, then, a sense of telos may be grounded in unexamined cultural assumptions about the ways in which people have historically developed in particular societies and be inappropriate in judging people from other cultures, as frequently happens when members of technologically advanced societies encounter members of technologically limited societies. One clear example of this sort of characterization is found in the description of 17th-18th century Native Americans as “savages” by European “explorers” (National Humanities Center, n. d.), or as the Europeans are often viewed from the Native American perspective, “invaders” (Native Village, n. d.).

Especially in English classes, the site of much literacy instruction, prolepsis works in service of the traditional culture of school in which canonical texts make up the curriculum and the analytical written text is prized as the highest form of interpretation (Applebee, 1993). These cultural practices, facilitated by a limited tool kit of mediational means used to produce a small set of textual forms, restrict students in terms of the meaning available for them to construct. Furthermore, because the cultural practices drawn on most resemble those found in the homes of middle-class students, school success is less likely for those whose home cultures provide them with a different tool kit, a different set of goals for learning, and different notions of what counts as an appropriate text (Cazden, 1988; Heath, 1983; Lee, 2007; Moll & Greenberg, 1990).

The emphasis on cultural history presents a conundrum because, while considered essential, it is often difficult to document clearly. Although some efforts have been made to study classrooms over time in order to understand the development of the prevailing practices, routines, and values (Gutiérrez & Stone, 2000), a deeper sense of individual or institutional history is available primarily through interviews and suggestive artifacts rather than direct, empirical study. A limitation of a cultural-historical theory, then, is that there has been a whole lot of history, the great majority of which is impossible to recover and document; and even the limited amount of documented history can fill entire libraries. This problem no doubt helps to account for the selective manner in which contexts are constructed to serve particular points and perspectives by those who interpret them.

Overlapping and Intertwined Boundaries

Settings typically overlap rather than existing as insular social contexts. Settings involve sets of relationships that coexist and intersect with others. Each classroom participant, for instance, acts within a setting bounded by the classroom, which is a subset of different, coexisting settings. The classroom is part of a school, which is part of a district, which exists within a statewide system, in what Cazden (1988) has called “nested” contexts. At the same time, an English class is situated within a set of departmentally-governed English classes that are typically responsive to local and state English/Language Arts frameworks (Grossman & Stodolsky, 1994). And that is just the side of the equation provided by the institution; each student brings a host of overlapping cultural settings to the mix, no doubt too complex to describe for any individual student, much less the teeming masses that populate any given school.

The question of a cultural history and its enduring relationships and practices requires attention to temporal, conceptual, and physical boundaries. They are rarely discrete, however, typically overlapping in some way with other settings in dynamic ways. Perhaps the most problematic and challenging situations occur over the confluence of public institutions such as schools and the many and varied

CHAPTER 2

backgrounds that shape and inform students' lives. As many have argued for many years (e.g., Heath, 1983; Moll, 1990), schools are designed to fit the cultural practices of the White middle class, a group that is far less homogeneous than this classification suggests. Feminists have contended that schools are designed more for the detached and analytic orientation of boys than the relational and cooperative disposition of girls (e.g., American Association of University Women, 1995), given the prevalence of the "essayist tradition" in school writing (Farr, 1993), the competitive and individualistic manner in which grades are awarded, and other staples of school life. In spite of this disadvantage, by all accounts girls outperform boys in virtually every area of school achievement, including disciplines such as mathematics and science traditionally considered to be masculine domains (Kindlon & Thompson, 2000).

A much clearer distinction occurs with the performance of students of Latin@², African American, Native American, and working class backgrounds in school relative to their White counterparts. These students become acculturated to ways of knowing and being in the world that are often distinct from those normalized in U. S. schools. Eckert (1989) describes the ways in which working class students view school as an adolescent holding pen and defy adults' efforts to treat them as children in need to external structure. Instead they orient themselves to the adult world of work and adopt presumed adult behaviors such as smoking, skipping class, and engaging in other rules violations as a way of gravitating toward the world they seek to occupy. They tend to place little value on the picayune nature of school assessment and, more than their middle-class counterparts, refuse to comply because they see no future for themselves in the destinations afforded by educational channels.

A number of studies have further found that, at least in some African American communities, the behavioral values of school are quite different from those that the students might practice in their home lives. In church, for instance, their congregation might be continually exhorted to participate in the service. Indeed, if the congregation is not sufficiently involved through loud vocal expressions and testifying, the preacher will shout "Y'all can't hear me!" to increase participation. Further, in public debates between White and Black citizens, Kochman (1981) found that most Whites employ a dispassionate and logical mode of debating and problem-solving while African Americans are much more likely to present themselves as emotional and fervent. As a result, the White participants think that the Blacks are overcome by emotion and are therefore illogical, while the Black participants think that the Whites are not sufficiently committed to their beliefs because they express them with so little affect.

Many African American students have thus been acculturated to believe that appropriate behavior in formal settings includes loud and passionate involvement. This engagement might come in the form of spontaneous participation that builds on and reinforces another speaker's contribution, including and perhaps especially the leader's; the ritualistic insults that are involved in what is variously known as

KEY TERMS AND CONSTRUCTS

“signifying,” “dissing,” “playing the dozens,” “snapping,” and other names (see Gates, 1988; Lee, 1993); employing the conventions of African American English such as double negatives or profanity to emphasize a point (Spears, 1998); and otherwise violating the norms of what middle-class White women—who make up the largest segment of the teaching population—believe to be appropriate in school. These violations often result in discipline. Frequently, after being disciplined for acting in ways that they believe are appropriate, African American students feel that they have been punished for what they believe to be acceptable public behavior, thus creating even greater separation between them and the school that is trying to socialize them into a different set of norms than they have learned at home.

Establishing and enforcing a motive for a setting thus can be problematic and contentious, and ultimately inequitable. The overlap of boundaries contributes to the difficulties involved in moving whole groups of people toward a relatively stable and uniform end; and yet that is what schools typically attempt to do in service of broader societal beliefs about the value and process of education.

MEDIATION BY SIGNS AND TOOLS

Psychological tools, like the more familiar tools of handiwork and construction, enable people to act on their environments. From the standpoint of literacy development, signs and tools typically involve the use of words to create texts. A *tool* such as speech or writing can create *signs* such as words and texts that serve to structure the developmental environment of an individual; through this structuring, signs potentially serve as tools for regulation and mediation. As I have reviewed, some view the sign-and-tool relationship as a single phenomenon, e. g., Cole’s (1996) merging of the two into the construct of an *artifact*, which he sees as the residue of cultural practice. I prefer to keep them distinct, even as I recognize that signs often serve a tool function.

Signs mediate a person’s appropriation of cultural values and the means through which people communicate them. Understanding how cultures sanction particular tools and signs thus becomes critical. Much school writing instruction, for instances, focuses on the sign potential of speech; that is, it centers on what written texts look like and emphasizes to students their need to approximate the conventions found in model texts. What it often lacks is any attention to the process of how to produce those texts, which is the tool function of speech (Smagorinsky, 1997a). The “writing to learn” movement, for instance, focused almost exclusively on the tool function of writing, emphasizing that the process of articulation itself can contribute to the writer’s construction of meaning, as Vygotsky (1987) postulated. (See Chapter 7 for an elaboration of these issues.)

Another factor involved in the tool-and-sign relationship is the development of broad patterns of communication known as *speech genres* (Bakhtin, 1986; Wertsch, 1991). Speech genres, or ordered systems for using linguistic signs,

CHAPTER 2

mediate the ways in which people learn to think in particular social settings. From an educational perspective, various academic speech genres tend to structure discussions in school, such as the pattern in which teachers lead students toward conventional, canonic interpretations of literature by providing a broad interpretive outline that leaves students with limited agency (Marshall, Smagorinsky, & Smith, 1995). Extensive attention to non-analytic response such as emotional engagement with literature is unusual (Applebee, 1993) and indeed has been ridiculed when recommended to teachers (see Stotsky's [1999] scathing opinion of teachers who attend to students' emotional readings of literature). The analytic emphasis of schools thus circumscribes the speech genres available in classrooms and muffles, discourages, or prohibits other sorts of responses, at least those expressed in formal classroom discussions.

The formal, analytic emphasis in school further restricts the use of speech so that it often short-circuits students' use of talk as a means of discovering what they have to say. Barnes (1992), for instance, identifies *final draft* and *exploratory* speech, arguing that in schools students are expected to speak only when their ideas are well-formed. Informal talk through which new ideas may come into being is discouraged, as are settings (e.g., small group discussions) that might promote exploratory thinking and speech.

The expansion of Vygotsky's emphasis on speech to include other sign systems in a cultural tool kit has proven provocative to literacy researchers (see Chapter 8), even to the point where some have labeled their own work in this vein as "new literacies studies" (e.g., Cope & Kalantzis, 2000). Locating their work within the field of semiotics—the study of signs—these researchers have undertaken studies of the role of dance (Hanna, 1987; Smagorinsky & Coppock, 1995a), art (Smagorinsky & Coppock, 1994; Whitin, 1996), video games (Gee, 2003), physical space (de Certeau, 1985), color (Eco, 1985), drama (Smagorinsky & Coppock, 1995b), and other types of signs in providing mediation and enabling self-regulation among members of various cultures (John-Steiner, 1987, 1995).

The mediational process is predicated on the ways in which people invest signs with *meaning* (Wertsch, 1985), particularly the ways in which members of a culture structure society according to shared meanings for signs (Cohen, 1989), a phenomenon I take up in Chapter 6. The point here is that researchers have begun to explore the manner in which various sign systems and the psychological and material tools through which they are produced are implicated in literacy development, often comparing them with the processes and texts available in written literacy. These studies have rich potential in revealing how learners make sense of their worlds through their literacy activities.

APPROPRIATION

Appropriation (Leont'ev, 1981; Wertsch, 1991) refers to the process through which a person "takes up and makes use of" (Newman et al., 1989, p. 15), i.e.,

adopts and modifies (Newell, Tallman, & Letcher, 2009), the tools available for use in particular social environments (e.g., schools, online communities) and through this process develops ways of thinking endemic to specific cultural practices (e.g., using jargon, employing particular scripts). The term appropriation has been used interchangeably with a set of terms that describe the same process yet characterize it differently. Newman et al. (1989), for instance, critique Piaget's use of *assimilation* to account for the ways in which people adopt practices from others. Meshcheryakov (2007), in discussing Vygotsky's terminology, refers to the term *interiorization* (p. 162) to describe what appears to be the same process.

Newman et al. use the term *internalize* throughout their book to account for the manner in which knowledge moves from the interpersonal to the intrapersonal planes; and in revisiting my own prior publications to produce this new account of my thinking that I present in this book, I have found in the past, including the recent past, I have relied on the term *internalize* to account for how people adopt the social practices, including ways of speaking, from the people who surround them. Recently, however, with the understanding of tool-mediated psychological functioning better explored and understood, the term appropriation has become preferred (M. Cole, personal communication). Each of the other terms—assimilation, internalization, and interiorization—suggests an intact transition from a tool or sign from outside the body to inside the skull. Given that the construct of *mind* (see below) is now viewed as a highly distributed entity, the language of external and internal suggests a notion that betrays Wertsch's (1991) assertion that mind “‘extends beyond the skin’ in at least two senses: it is often socially distributed and it is connected to the notion of mediation” (p. 14; cf. Bakhtin, 1981, 1986; Bateson, 1972; Geertz, 1973). The term appropriation thus resolves the conceptual problem of accepting the mind's distributed nature while also accepting the Vygotskian tenet that cognitive processes are social in origin, and the rhetorical problem of articulating this tension via a single, accurate term.

The extent of appropriation depends on the congruence of a learner's values, prior experiences, and goals with those of more experienced or powerful members of a culture such as parents, faith community leaders, cultural icons, and so on (see Cole, 1996; Newman et al., 1989; Smagorinsky, 1995a; Wertsch, 1991). The learner's active role in these practices is fundamental to appropriation, which enables them to reconstruct the knowledge they learn, thus transforming both their conception of the knowledge and in turn that knowledge as it is construed and used by others. Cazden's (1988) idea of *performance before competence* is useful in understanding appropriation because it emphasizes the role of active participation as a means of becoming competent in social practices.

Different tools are appropriated for use in different settings through different means. Grossman, Smagorinsky, and Valencia (1999) differentiate among five degrees of appropriation, each representing a depth of understanding of a particular tool's functions. They consider the appropriation of a tool *as it is being conceived in the context of learning*, suggesting that these conceptions are social

CHAPTER 2

constructions rather than stable ideals. Grossman et al. propose that appropriation can take place in varying degrees, including a lack of appropriation. Following is their account of these levels, which they developed for the study of teachers' appropriation of pedagogical tools, yet which may have relevance for literacy research as well.

Lack of appropriation Learners might not appropriate a literacy tool for several reasons. The concept may be too difficult to comprehend at the point in someone's development when it is initially encountered. Alternatively, the concept may be too foreign to their prior frameworks at that point in their development. Learners might also understand the concepts as intended but reject them for a variety of reasons.

Appropriating a label Assuming that a learner has some intent to appropriate a tool, the most superficial manner comes when a person learns the name of a tool but knows none of its features. For instance, a student in school might be exposed to the idea of an indirect object in a sentence, yet not understand its features or how to identify or produce one.

Appropriating surface features The next level of appropriation comes when a person learns some or most of the features of a tool yet does not understand how those features contribute to the conceptual whole. The authoritative version of the concept is assigned a particular, officially-articulated meaning, and teachers provide this meaning to students as a conceptual tool. For a concrete tool such as an indirect object, the authoritative version is relatively indisputable³. For something more abstract such as a "well-formed paragraph," the features might be more open to different conceptions.

Appropriating conceptual underpinnings At the conceptual level one grasps the theoretical basis that informs and motivates the use of a tool. Learners who grasp the conceptual underpinnings of a tool are likely able to make use of it in new contexts and for solving new problems. A learner could conceivably understand and use the conceptual underpinnings of a tool but not know its label, as is often the case for fluent writers in a particular genre who lack formal knowledge of that genre's features, such as the notion of "warranting" in arguments (see Toulmin, 1969).

Achieving mastery An understanding of both a concept and its formal properties could conceivably lead to a state of mastery, which Herrenkohl and Wertsch (1999) view as an achievement that involves a learner's fully realized grasp of a concept that most likely would take years of practice to achieve. This distinction argues for a longitudinal look at learners' development, since they may only be able to master the use of literacy tools after several years of practice. I have been writing since I was a young child and have written almost incessantly for over

thirty years without having achieved anything I'd call "mastery," and so I view this state as more of an ideal than a destination at which most people can conceivably arrive for the development of complex literacy skills. The notion of "mastery" seems consistent with the notion of telos in that both represent optimal destinations that may always, like the pot of gold at the end of the rainbow, remain out of reach in the course of individual human development and indeed may shift locations as one moves toward it.

Factors Affecting Appropriation

The idea that a tool may be appropriated "properly" assumes that it has an official use. Yet those of us who have opened paint cans with screwdrivers know that a tool's official purpose can have little to do with the ways in which individuals actually use it. It is critical to understand, then, how and what appropriation means to the learner who is trying to adopt and modify a tool for personal use. What follows is a set of factors that may be involved in how learners come to employ the literacy tools that contribute to their communicative needs.

Social context of learning The social context of learning provides the environment in which one learns how to use tools. The notion of context is often associated with a physical structure (e.g., an arena such as a school, an after-school program, a book club) that embodies a set of human values (Chin, 1994). The sense of context outlined here primarily refers to the related set of social practices in and through which learning takes place among people whose lives intersect in a particular activity in what they construct as the setting for their learning. Social contexts in this conception serve as structures that are products of cultural history in which individual histories converge, and are thus inherently relational and value-laden.

The social context of a setting also includes how, and by whom, tools are introduced and used. A tool may be presented through a text, instructor, school-based teacher, or classmates in varying degrees of faith to its authoritative conception and in varying degrees of complexity corresponding to the levels of appropriation previously outlined. If a tool is presented without its conceptual underpinnings, students may appropriate only what is available, i.e., the label and surface features. One widely-used book for training teachers, for instance, includes a set of bumper-sticker slogans along the lines of "Celebrate diversity!" and other bromides that encourage a complex disposition without providing any concrete means toward putting it into practice (see Smagorinsky & Whiting's [1995] analysis of English methods course syllabi).

Although school is the primary formal setting in which students learn literacy skills, they often participate of their own volition in other communities of literacy practice, such as the online fanfiction collaboratives in which many young people

participate (see Black, 2008). Teachers often view the formal conventions valued in school as official and authoritative and discourage deviations from their norms, yet in doing so may violate the conventions that are expected in students' self-chosen literacy communities (Alvermann, 2010). What becomes appropriated and in what manner then depends on the degree to which the learner understands the expectations of different settings and adjusts her literacy practices accordingly. What becomes problematic is the manner in which official school-sanctioned conventions and speech genres predominate over what students might most usefully employ to find meaning in their schoolwork.

Individual characteristics of the learner Vygotskian theory focuses primary attention on the cultural-historical settings in which the development of both individuals and their social groups takes place. Individual characteristics of learners serve as factors that are implicated in the process of appropriation within these settings. Wertsch (1998) has argued that debates about human development typically cast the individual and society as antimonies in ways that caricature opposing perspectives. He argues instead for the need to view the individual as fundamental to the construction of social groups, rather than as a separate entity.

Vygotsky's concern with the individual-in-society suggests a need to understand how a person has come into being in relation to what cultural-historical settings expect of their participants. Both biological and sociocultural factors—that is, both nature and nurture—contribute to what a person brings to a setting and its conventions, rituals, and practices. Biologically, for instance, one can have a particular sort of “extranormative” or “neuroatypical” disposition, i.e., one that departs from mental health norms (see Smagorinsky, 2011b, for a rationale for resisting deficit language such as “disorder” for such makeups). Those on the autism spectrum, for instance, may be constrained in their capacity to grasp particular sorts of tools, such as those that enable communication and relationships.

A more pervasive problem comes from the cultural ways of knowing that different types of learners bring to classrooms. The stereotype of the “silent Indian” student, for instance, often follows more from a sense of alienation from the conduct of schooling than from a broad disposition to refrain from talking, as evidenced by observations of Native American students who rarely speak in classrooms yet are very vocal in other settings (Philips, 1972, 1983). I have reviewed this phenomenon with other cultural groups, often identified by racial characteristics (e.g., Alim & Baugh, 2006, on African American students; Li, 2005, on Asian American students; Valenzuela, 1999, on Latin@ students; and McCarty & Lomawaima, 2006, on Native American students) or those following from social class differences (e.g., Eckert, 1989; Hicks, 2002) or the intersection of multiple factors (e.g., Healey, 2005).

The effort to standardize schooling in terms of uniform curricula, standardized tests, behavior policies based on middle class norms, and other efforts can create disadvantages for many such students in school. Indeed, the dropout rates of many

KEY TERMS AND CONSTRUCTS

from marginalized groups greatly outpace those of the middle class students for whom schools appear to be designed (Fine, 1991; Orfield, Losen, Wald, & Swanson, 2004). The fact that Orfield et al. and Stotsky (1999) both employ a similar titular claim for different ideological ends is most striking. Orfield et al. title their report *Losing Our Future: How Minority Youth are Being Left Behind by the Graduation Rate Crisis*; Stotsky titles her study of glossary items in multicultural textbooks *Losing our Language: How Multicultural Classroom Instruction is Undermining our Children's Ability to Read, Write, and Reason*. To Orfield et al., “we” are the people broadly speaking who stand to lose “our” future if we abandon particular cultural groups because of their differences. To Stotsky, “we” are the keepers of the gate warding off the onslaught of unwashed barbarians who threaten “our language” by persisting with their own.

The fact that so many students leave school based on what appear to be cultural differences should be alarming to educators who are concerned with the life trajectories of students from across the range of communities that make up the U. S. polity. Taking Stotsky’s (1999) position that “we” are the keepers of the pure and right version of English—one rooted only in Greek and Latin—suggests that “we” have a duty to impose the norms of the established, dominant culture on all. This dispute over the motive of education illustrates the challenges facing literacy educators over the question of how to educate students of diverse backgrounds in a single institution and the settings it affords.

MIND AND MEDIATION

The notion of “mind” is somewhat elusive. Major Vygotskian texts include “mind” in their titles without having an index reference to the term, including Vygotsky’s *Mind in Society* and Wertsch’s *Vygotsky and the Social Formation of Mind* and *Mind as Action*. Many psychologists view the human mind as a distinct entity that is firmly encased within the skull. As one might infer from Wertsch’s (1991) assertion that mind extends beyond the skin, a perspective grounded in Vygotsky’s cultural theory of the socialization of mind would view it as inextricably linked to the mediational cultural tools through which it acts and is acted upon. It is further linked to neurological functions within the body, particularly those implicated in emotional life. Defining such a distributed entity with clarity appears problematic, even as the construct of “mind” is a central focus of any psychology. To Wertsch (1991), mind is more or less equivalent to *distributed mental activity in sociocultural engagement*. And yet such a notion of mind would never appear on a brain scan.

Cultural Schemata

Newman et al. (1989) describe mind as part of their consideration of socially, culturally, and historically situated cognition. They wrote their book in an era when

CHAPTER 2

cognitive psychology and its information processing paradigm—in which cognition is considered almost exclusively as taking place between the ears (see Chapter 9 for an exploration of the different theoretical underpinnings of cognitive psychology and cultural-historical psychology)—provided the conversational turn that anyone proposing an alternative needed to address. They contrast their work with that of information processing pioneer Herbert Simon⁴, saying,

We agree with Simon's [1980] characterization of the mind as an artifact rather than as a "natural" system. This position is consistent with the sociohistorical theory (Vygotsky, 1978, Luria, 1978; Leont'ev, 1981) that we draw upon in our analysis of cognitive change. Where we differ from many of our colleagues in cognitive science is in our primary interest in man-made⁵ *systems of social activity*. A game of poker, work in a factory, a classroom lesson and a psychological experiment are all artificial systems in Simon's sense. But they are systems organized *among* as well as *within* human beings. *The physical symbol systems that constitute cognition are materially present in the organization of people—in their interactions—as well as in their brains.* (p. 3; emphasis in original)

Again addressing the predominance of cognitive psychology, Cole (1996) later drew on ideas proposed by his UCSD colleague and cultural anthropologist D'Andrade (1990, 1995). D'Andrade and Cole emphasize the relation between cultural practice and human mentation to adapt information processing's *schema theory*, the widely accepted view that people develop frameworks for thinking that in turn guide their approach to new situations, to conform to cultural-historical principles. They thus reformulated schema theory to produce the notion of *cultural schema* to indicate the ways in which frameworks for thinking are rooted in cultural-historical social practices that learners appropriate and use to frame new experiences. Newman et al. (1989) distinguish their perspective from that of the reigning cognitive paradigm of the 1980s (see Chapter 9 for further differentiation):

In cognitive psychology, . . . an abstract and general structure would usually be called a "schema" and would be considered a feature of a subject's internal conceptualization. . . . We will be looking for this "schema" outside of the laboratory, and we will be careful not to give it an exclusively mental status. . . . it would be found as much *interpsychologically* (i.e., mediating social interactions) as *intrapsychologically* (i.e., mediating an individual's action). (p. 41; emphasis in original)

The development of cultural schemata suggests the distributed nature of cognition (Salomon, 1993). Questions abound concerning how culture shapes specific paths of development, even within societies whose predominant sign systems promote regulation through similar general processes such as Piagetian stages of cognitive development. Many cultures lead people to appropriate "higher" or sociocultural

KEY TERMS AND CONSTRUCTS

mental processes that, from other perspectives, are not "positive" or optimal. Urban youths participate in street gang activities, for instance, appropriating codes of behavior that are antithetical to civil law. Genocidal societies such as Nazi Germany provide signs and tools that lead its citizens to believe in and participate in the extermination of other groups of people, a practice labeled by members of other cultures as war crimes and atrocities. Wells (1995) has attempted to solve the developmental conundrum by arguing that development can be considered a function of a learner's immediate sense of an activity's worth, regardless of other judgments. Children whose environments teach them anti-Semitism and genocide as a reasonable practical solution, then, can be said to be "developing" toward a positive end-point within the bounds of their cultural values, even though members of other cultures might find the developmental path to be evil.

A person, especially in a technologically-connected world in which contact with other cultures is a feature of daily life, is rarely limited to a single developmental focus, however. Most people are developing in several ways at once. Tulviste's (1991) principle of *heterogeneity* is informative on this point. He maintains that an environment, or overlapping social networks, can present a learner with a variety of types of problems to solve, thus allowing individuals to develop a number of frameworks for thinking. Development can thus take several directions simultaneously; a person can learn the value of care from a personal relationship and aggression and competition from involvement in sports. The heterogeneity principle helps account for the complexity of human life and the many roles that people play in their daily relations.

The extent to which a person appropriates the values of any cultural way of knowing depends on the degree of consonance the person has with the cultural tools that mediate development. Tools enable meaning construction when they are sanctioned by the cultural environment of learning, are recognized by the learner as tools, and are used *volitionally* by the learner (Smagorinsky, 1995; Smagorinsky & Coppock, 1994, 1995a, 1995b). Children who are abducted and raised in a child pornography industry against their will would not, in this conception, be in a state of social or cultural development. Even though they are immersed in a cultural value system that provides them with tools and signs for mediating mental activity toward a certain optimal endpoint, they presumably do not agree with that endpoint, do not act volitionally, and do not value the cultural tools provided to them. They thus resist the effort to shape their higher mental processes toward the culture's teleological ends.

The conception of development I am presenting assumes the learner's acceptance of the value system underlying the semiotic structure of the environment and the need for intersubjectivity—a shared understanding of the situation—with the sense of meaning communicated through the signs that order thinking and activity. This sense of consonance includes not only a mutual agreement on the meaning of signs, but on the ways in which tools are used to produce them. Such congruent tool use might require intersubjectivity in a variety of social relationships,

CHAPTER 2

including the participant structure of activity (Philips, 1972) and the ways in which community members share an understanding of task and tool use in the process of appropriation (Leont'ev, 1981; Newman et al., 1989).

Mind and Emotion

In addition to being tied mediational to culture and its tools and practices, mind includes a neurological element that involves an emotional dimension. Beginning with his exploration of *The Psychology of Art* (1971) in his doctoral dissertation, Vygotsky included attention to the role of emotions in human development at a variety of points during his career. I review these at length in Smagorinsky (2011a) and for the purposes of this chapter will confine my attention to the fact of the neurological system in emotional, and thus cognitive development, rather than covering all of Vygotsky's work in this area.

Yaroshevsky (1989) relates that in 1929, Vygotsky jotted the following notes: "Dynamics of the individual=drama. . . . The individual as a participant in a drama. . . . Psychology is humanised" (Yaroshevsky, p. 217), suggesting that the principle focus of psychology should be on personality, "a character of the drama of life on the social stage" (p. 219). Vygotsky's sense of drama concerns people in relation to both others and themselves, with drama emerging through relationships with other people in social settings. Dramatic tensions are also present within the individual, indicating that the development of personality is a consequence of the intrapersonal and social dramatic conflicts a person experiences in everyday life.

Vygotsky's (1971) use of Aristotle's term *catharsis* provided him with an early effort to relate cognition and emotion as associated developmental processes. A catharsis, in his conception, involves the generalization from personal emotions to higher human truths that becomes available through a transaction with a work of art. Both emotion and imagination are central to this process, with a key aspect of each being its indefiniteness and thus its capacity to promote a raised awareness in a respondent. An aesthetic response to art, he argues, is not strictly visceral. Rather, it involves a delay in which the imagination elevates the response: "The emotions caused by art," he says, "are intelligent emotions" (p. 212).

Catharsis involves "an affective contradiction, causes conflicting feelings, and leads to the short-circuiting and destruction of these emotions" (Vygotsky, 1971, p. 213). This process leads to "a complex transformation of feelings" (p. 214) resulting in an "explosive response which culminates in the discharge of emotions" (p. 215). Because emotion and imagination are implicated in instances of profound engagement with art, Vygotsky asserts that "art complements life by expanding its possibilities" (p. 247) as one overcomes, resolves, and regulates feelings through a process of generalization of those feelings to a higher plane of experience.

Vygotsky (1999) returned to emotional issues a few years later, challenging the reigning mechanistic conception of psychology of his day, particularly those predi-

cated on any Cartesian separation of mind from environment or internal functions (e.g., the James-Lange hypothesis; see James, 1890). Such an approach, he felt, “not only bypasses the problem of development, but factually resolves the problem in the sense of a full and complete denial of any possibility of emotional development in man” (p. 205). By viewing cognition as a discrete phenomenon, he argued, psychologists posit a person for whom “The body acts as a soulless robot wholly subject to laws of mechanics” (p. 163), one that is fundamentally dualistic and intellectualistic and in which feelings are reduced “to a purely cognitive process” (p. 176), such as the person as conceived of by Stotsky (1999) in her angry denunciations of the role of emotions in the construction of meaning in reading. In contrast, Vygotsky argued that “Consciousness must not be separated from its physical conditions: they comprise one natural whole that must be studied as such” (p. 228).

These emotions are further related to the setting in which emotional behavior is learned. One learns proper emotional etiquette from societal values such that in one culture, death is celebrated as a transition to a higher plane of existence, while in another, it becomes the source of wailing and lamenting. On a more local level, one need only watch a tennis match and football game to understand the manner in which an emotional response to athletic excellence may be expressed in different contexts. The social construction of emotional response is further evident in learning environments, such as the different means of interacting by the same English teacher in the leading of school-based literary discussions and in book club settings with selected adult friends (Marshall et al., 1995).

Shortly before his death, Vygotsky (1994) adapted the Russian term *perezhivanie*, possibly from Stanislavsky (2007), to account for the central role of affect in framing and interpreting human experience. This term has been associated with efforts to overcome trauma; its meaning appears to suggest that it is grounded in the process of emotional response to experience, particularly in its regulatory function. Vygotsky employs the term for the dramatic process of the development of personality in everyday life rather than on the stage. He argues that environmental factors are “refracted through the prism of the child’s emotional experience” (p. 339) to help shape a developmental path.

People frame and interpret their experiences through interdependent emotional and cognitive means, which in turn are related to the setting of new experiences. Smagorinsky and Daigle (2011) offer the term *meta-experience*—that is, how one experiences one’s experiences—to indicate the process through which people render their socially and culturally situated activity into meaningful texts of events. Vygotsky (1994) argues that “an emotional experience [*perezhivanie*]⁶ is always related to something which is found outside the person—and on the other hand, what is represented is how I, myself, am experiencing this, i.e., all the personal characteristics and all the environmental characteristics are represented in an emotional experience [*perezhivanie*].” Consequently, in “an emotional experience [*perezhivanie*] we are always dealing with an indivisible unity of personal characteristics and situational characteristics, which are represented in the emotional experience [*perezhivanie*]” (p. 342; emphasis in original).

CHAPTER 2

Cole (1996) has linked cultural-historical theory to Damasio's work relating cognition and emotion from a neurological perspective that provides empirical grounding for theories that link cognition and emotion. Immordino-Yang and Damasio (2007) argue that what appears to be strictly rational cognition is guided by "hidden emotional processes" (p. 5) that may play a dynamic role in the ways in which people learn. Emotional strategies help to frame an affective approach to learning that suggests that tasks are manageable and learners themselves are capable. They thus serve as mediational tools through which experience is interpreted and applied to new problems in ways that make success appear plausible and manageable.

Immordino-Yang and Damasio (2007) argue that rational thought and logical reasoning "cannot be recruited appropriately and usefully in the real world without emotion. Emotions help to direct our reasoning into the sector of knowledge that is relevant to the current situation or problem" (pp. 7–8). One's construction of experience thus produces frameworks for interpreting new experiences. Emotions, rather than being strictly spontaneous, may be managed strategically to interpret experiences in ways that dispose a learner to view a new situation as replete with potential for success, and thus to help bring about that success (see Smagorinsky, Daigle, & O'Donnell-Allen, 2010). A learner, then, is potentially less at the mercy of an environment and more able to manage how events are interpreted, if not entirely controlled, in that setting.

CONCEPTS

Scribner and Cole's (1981) and Heath's (1983) pioneering work established that literacy learning may take place anywhere that people use reading and writing as a medium of exchange and communication, and their insights have spawned a generation of research into literacy development in work settings, community practices, families, and other settings outside formal schooling (see Beaufort, 2006; Christenbury et al., 2009; Cushman, Barbier, Mazak, & Petrone, 2006). Attention to such diverse settings, although less of a concern of Vygotsky's for much of his career, has brought into focus a major point of his theory of concept development.

Vygotsky distinguished between what have been translated as *scientific* or *academic* concepts and *spontaneous* or *everyday* concepts. A scientific concept is not necessarily about science. Rather, in Vygotsky's parlance it refers to concepts that are learned in a formal setting, particularly school. Such learning, as he observed it in the Soviet schools of his time, involved what Wertsch (1985) has called the *decontextualization of mediational means*. This phrase refers to the manner in which a concept is detached from its original context of learning and applied to new situations where it is appropriate.

Wertsch's (1985) term *decontextualization* has more recently become viewed as inconsistent with notions of situated learning, which postulate that nothing occurs outside a context, making *decontextualization* impossible. Rather, in schooling as

Vygotsky knew it or envisioned it, a concept is not tied to the setting in which it was originally learned. Instead, it is subjected to an analysis that extracts generalizable features that make it amenable to application and adaptation in solving new problems in new contexts that share general properties. This abstractability often serves as the instructional focus, with the generalization presented initially and illustrations of various applications provided subsequently.

For example, in grammar instruction, students might be presented with the concept of the compound sentence, and then be required to identify whether a list of sentences may be classified as compound or not. In this approach, the abstraction of the compound sentence is primary, and efforts to identify it in new contexts—sentences that include them or not—follow from learning the rule. This approach stands in contrast to having students begin by writing ideas in which they have a vested interest and then returning to see if compound sentences are present in their writing, the degree to which compound sentences might improve their ability to communicate their ideas with given readerships, and other more inductive ways of attending to the grammatical concept of the compound sentence and its role in expression and communication.

Spontaneous concepts in contrast are not learned with the benefit of formal abstraction guided by a teacher. Rather, they are learned in situated, everyday practice, with the result that whatever concepts the learner derives are applicable primarily in similar contexts. As I review in Chapter 3, Luria's (1978) research in Soviet Central Asia interpreted villagers' difficulty with abstractions as a sign of cultural and cognitive backwardness because their knowledge came entirely from everyday experience. Given their isolation from other tribal groups, they had little need for abstraction to new settings in their pre-Soviet life; and given their lack of formal education and accompanying formal literacy instruction, they were not exposed to the rule-governed and abstractable forms of reasoning that Vygotsky considered available through instruction in academic concepts.

Although he treats spontaneous and scientific concepts as, in one sense, different, Vygotsky (1987) stresses the need for integration in order to ensure powerful learning and developmental experiences. He argues that in formal academic settings, instruction in principles alone will not result in the development of a concept. Rather, knowledge of abstracted governing rules must come in conjunction with empirical demonstration, observation, or activity. Vygotsky maintains that

direct instruction in concepts is impossible. It is pedagogically fruitless. The teacher who attempts to use this approach achieves nothing but a mindless learning of words, an empty verbalism that simulates or imitates the presence of concepts in the child. Under these conditions, the child learns not the concept but the word, and this word is taken over by the child through memory rather than thought. Such knowledge turns out to be inadequate in any meaningful application. This mode of instruction is the basic defect of the purely

CHAPTER 2

scholastic verbal modes of teaching which have been universally condemned. It substitutes the learning of dead and empty verbal schemes for the mastery of living knowledge. (p. 170)

Vygotsky (1987) insists that principles cannot be divorced from application. His formulation requires the learner to establish a mindful relation between abstracted knowledge and experience in the world: "*Conscious* instruction of the pupil in new concepts (i.e., in new forms of the word) is not only possible but may actually be *the source for a higher form of development of the child's own concepts, particularly those that have developed in the child prior to conscious instruction*" (p. 172; emphasis in original). He argues that this interplay between formal knowledge of principles and knowledge gained through everyday activity enables people to think about problems beyond their range of experience. He maintains that the "process of concept formation requires . . . acts of thought which are associated with free movement in the concept system, with the generalization of previously developed generalizations, and with a more conscious and voluntary mode of operating on these existing concepts" (p. 181).

The development of a scientific concept thus relies on formal instruction—usually in an academic setting but available through communities of faith, apprenticeship relationships, organized activities, and other explicit and systematic instructional settings—and on the learner's conscious awareness and volition. It further relies on *interplay between the learner's conceptual fields*, with a dialectical relation developing between scientific and spontaneous concepts, those that involve "situationally meaningful, concrete applications, that is, in the sphere of experience and the empirical. . . . Scientific concepts restructure and raise spontaneous concepts to a higher level" (p. 220). The formal principles of the scientific concept create cultural schemata that enable a greater understanding of worldly experience and ability to act in relation to the world in confident, principled ways. By "principled" I refer to rule-governed action, which is not necessarily "principled" in the sense that it is scrupulous.

Vygotsky's primary interest in literacy-related development thus concerned school learning as informed by and anchored in real-world experience. His emphasis suggests the need to examine school as a particular kind of culture that fosters the development of scientific concepts. As many have argued, however, the current U. S. obsession with standardized testing has virtually eliminated attention to concept-driven thinking and action from classrooms, imposing instead imperatives to demand rote and literal performances from students. Vygotsky's focus on concept development as a school-based activity thus needs to take into account the fact that the Soviet schools of his era, at least as he envisioned them, had a different focus than do 21st century U. S. schools. Undoubtedly, a critic could further maintain that the concepts expected in Soviet schools were necessarily part of the state's fundamental task of imposing its ideology on its citizens (Wertsch, 1999). The Soviet Union was not unique in making its school curriculum conform to its ideology. Loewen (1996) argues that the

grand narratives of U.S. history textbooks establish their own ideology and sense of national identity that elide CIA-sponsored political assassinations, the exploitation of foreign resources to expand the U.S. economy, the history of racism and sexism within U.S. society, and many other sources of shame and embarrassment in schoolchildren's appropriation of a sense of national affiliation.

One aspect of concept development that tends to be overlooked is that *concepts enhance people's ability to anticipate how future action will unfold*. A generalization that is structured with formal, abstractable principles and grounded in extensive worldly experience enables, to some degree, one to infer what will happen next, given sufficient information about the present and how it has come into being. A concept is not simply a generalization, but one that is moved into action by an ideology or theory about how its principles function in relation to nature or social relationships and practices (Barrett, Abdi, Murphy, & Gallagher, 1993; cf. Gelman, 1999). Concepts are thus more than taxonomic structures. Rather, they serve as the basis for the planning of rule-governed, culturally-channeled worldly action.

This postulate holds for both the natural and social worlds. If I have a concept for how a particular plant will grow, for example, I can use that understanding to situate the plant in appropriate soil, light, and water conditions in order for it to thrive. If I misunderstand a plant's needs and instead apply a generic and ill-advised principle, such as that plants require abundant water, then I might water a plant to death, as is common among novice gardeners who do not understand the fact that many plants have evolved to survive in arid conditions and so drown under excessive watering, a solution that many novices apply to any wilting plant, including those that have begun to die because they are already oversaturated. Even with relevant conceptual knowledge, I might install plants that die from other causes. But if I know a plant's constitution and habits and thus can reasonably anticipate its needs and foresee how my program of care will produce particular results, I can increase its chances of survival.

The actions of people are more difficult to anticipate because they have volition. Nonetheless, a conception of particular culturally-mediated social action can enable greater anticipation of how human events will turn out than will the lack thereof. I have come to understand this likelihood through my studies of beginning teachers (e.g., Smagorinsky, Wilson, & Moore, 2011). Those with limited conceptions of teaching and learning tend to engage in trial-and-error instruction, retaining those practices that turn out to be effective but having little foresight regarding which will work. Those who can articulate the purposes behind their decisions based on a synthesis of formal and practical knowledge have had better success planning instruction that leads to their intended goals.

Many school reforms that lack a conception grounding in both abstract principles and empirical understanding make unwarranted assumptions about how teachers and students act, a major problem when policymakers such as U. S. Secretary of Education Arne Duncan or major educational underwriters such as Bill Gates

CHAPTER 2

have never taught at the classroom level. They assume, for instance, that by imposing a standardized testing system on children that is designed to weed out bad teachers whose students produce low test scores, they won't (1) drive out the best teachers who find the test-oriented setting of school to be tedious and unstimulating, or (2) mismeasure students' capabilities by confining high-stakes assessment to single-application test performances, or (3) penalize or advantage teachers for the economic conditions in which their students live, or (4) mistakenly assume that a single test item (or the aggregate of test items) is isomorphic across all children, or (5) fail in any number of other ways to assess students and teachers in sensitive and appropriate ways. Having a strong, empirically-based conception of social processes, then, can heighten the possibility that a plan will work as anticipated and reduce the likelihood that it will fall apart because it rests on a spurious foundation, particularly when billions of dollars are invested in them and millions of people are affected in negative and pernicious ways.

In the sense that concepts contribute to one's ability to anticipate how the future will unfold, they can help lead to feelings of order and security, and thus happiness, a term I use in the manner of Csikszentmihalyi and Larson (1984), who view happiness as a state of deep-seated contentedness and satisfaction with one's place in the world, rather than as a superficial condition of pleasure. The more formally grounded (i.e., scientific or academic) and abstractable a conception is to new settings and situations, the fewer disruptive surprises one will encounter and the more one will experience stability when engaging with the world. This is not to say that surprises and detours are necessarily unhappy occasions, for they often lead to happy outcomes, as I illustrate in Chapter 7 with student writer Doug, who deliberately creates unanticipated moments in his writing in order to build excitement in his own composing process. Rather, it is to say that a concept enables an orderly engagement with life such that unanticipated events are less likely to cause unwanted disruptions and decisions that produce negative outcomes. Indeed, one could infer that Doug's conscious creation of suspense for himself as a writer is a concept-driven decision based on his experiences and understanding of how to structure his own reality to produce outcomes that he found stimulating.

By linking concepts to happiness, I also link it to the affective dimension of Vygotsky's view of human development as comprehensive and integrated. In this view, cognition and affect are synergistic processes with a dialectic relation. As I illustrate in Chapter 7, student writer Susan Bynum's positive sense of herself as a writer enabled her to overcome obstacles during her composition of an analytic essay that required her to explicate the relationships within a labyrinthian Shakespearean plot in the play *Much Ado About Nothing*. She was able to envision a positive outcome to her writing that enabled such strategies as not laboring over word choices because she understood that she could skip some decisions and return eventually to make improvements. This affective framework in turn helped her to produce an essay that contributed both to immediate feelings of satisfaction and to

her overall feeling of confidence as a writer. Future action that helps one reach goals and experience the experience—what I refer to as a *meta-experience* in discussing the construct of *perezhivanie* earlier in this chapter—as satisfying, engaging, fulfilling, or other affectively positive feeling can in turn lead to a happier and more affectively balanced and satisfying experience of life.

Concepts are fundamentally cultural as part of the frameworks for thinking that people appropriate through their social experiences, suggesting that bringing them to bear in settings guided by different motives and practices requires modification of their principles and thus of the concept. I make this claim largely in relation to people who have already developed some language fluency, given that, as Mandler (2007) has found, even preverbal infants develop an extensive conceptual system to frame their understanding of the world. This conceptual modification among people in adolescence and beyond contributes to their development of a more complex understanding, and development toward a modified life trajectory capable of adaptation to new problems.

A young person might identify as “a writer” over a period of decades, yet have that identity and understanding of it as an identity mediated and modified by different settings, levels of maturation, goals, and other factors. He or she might say that “I want to be a writer” in high school. Subsequently, he or she might engage in a variety of disciplinary writing experiences in college that suggest the need for rhetorical differentiation, learn especially the conventions of literary criticism as an English major, take a job in an advertising agency writing copy that requires an adjustment from the expansive and belletristic conventions of literary criticism to the economical and functional limitations of producing snappy slogans, advance to writing jingles that fit the parameters of music and include memorable rhymes that must be coordinated with images, and ultimately gravitate to writing and performing songs on stage that are more expansive and cover any conceivable topic⁷. This trajectory is always socially mediated, with the constraints and affordances available in one of these writing cultures not necessarily providing developmental channels in another.

As these examples suggest, concepts do not simply comprise empty theories, as Vygotsky’s (1987) attention to the need for the interplay of spontaneous and scientific conceptual fields indicates. Rather, concepts must have experientially- or empirically-grounded utility to guide worldly action and engagement. Concepts thus provide the means through which action takes on function, form, meaning, and purpose. This action may be social, as in having a robust understanding of the conventions of the genres through which one hopes to communicate, or in relation to the natural world, as in understanding meteorological conditions and how they suggest what awaits one in engaging with the geological world.

CHAPTER 2

SUMMARY

I could make the case that this entire book provides an account of Vygotsky's key terms and concepts. I have chosen this set to foreground because of their recurring and pervasive role in understanding his work. In subsequent chapters I refer back to these constructs in outlining a Vygotskian framework for literacy research, in the process explaining my interpretation of how he uses them to develop more specific concepts in his effort to develop a comprehensive account of a historically and culturally grounded theory of the development of human consciousness.

NOTES

- ¹ Piaget, born in 1896, was also a contemporary and a pioneer whose own considerable draft produced a different Zeitgeist, one based on human development according to biologically unfolding stages, that dominated U.S. colleges of education for much of the 20th century.
- ² I use the term "Latin@" rather than "Latino/a" as a way to diminish the foregrounding of either gender in referring to this population. The @ symbol conveniently locates the *o* and *a* in the same figure such that neither is dominant. See, e.g., Fránquiz and Salazar (2007).
- ³ Note, however, that not all grammatical concepts are so clear-cut. The difference between a dangling preposition and an adverbial particle, for example, is a matter of perspective and interpretation.
- ⁴ Simon used protocol analysis studies to investigate economic reasoning, earning him recognition both as a key figure in cognitive psychology and as Nobel laureate in economics.
- ⁵ On those occasions when my sources employ what would now be viewed as sexist or phallogocentric language, I quote them directly without taking a presentist perspective of judgment. I am confident that in hindsight they regard such word choices as artifacts of particular times and places and that their language in their current writing reflects newer sensibilities.
- ⁶ The insertion of [*perezhivanie*] in the text is a translation device provided by editors Van der Veer and Valsiner (1994), who explain that "The Russian term serves to express the idea that one and the same objective situation may be interpreted, perceived, experienced or lived through by different children in different ways. Neither 'emotional experience' (which is used here and which only covers the affective aspect of the meaning of *perezhivanie*), nor 'interpretation' (which is too exclusively rational) are fully adequate translations of the noun. Its meaning is closely linked to that of the German verb 'erleben' (cf. 'Erlebnis', 'erlebte Wirklichkeit')" (p. 354).
- ⁷ This trajectory is made up from a composite of real examples. The differences in disciplinary writing conventions have been well-documented in studies of rhetoric (e.g., Bazerman & Paradis, 1991); the qualities of literary criticism draw selectively on the broader conventions that govern argumentation and thus require highly specialized disciplinary knowledge (Fahnestock & Secor, 1991); English majors often have great difficulty adapting their writing from their college discipline to business environments in such areas as writing concise memos (Anson & Forsberg, 1990); and for the Beach Boys album *Pet Sounds*—widely ranked as among the most influential rock albums ever released—Brian Wilson employed a writer of commercial jingles, Tony Asher, as his co-composer.

CHAPTER 3

THE SOCIAL CONSTRUCTION OF DATA IN THE ZONE OF PROXIMAL DEVELOPMENT

Researchers in education, psychology, and related fields have historically been concerned with the extent to which the research methods they employ affect the emergence of the data they collect and analyze. Many publications, for instance, caution researchers about the perils of the Hawthorne effect (Adair et al., 1989), through which the mere fact of being observed for study improves performance. This effect suggests that what would “naturally” occur is altered by the presence of observers, thus invalidating the inevitably inflated results. The metaphors that have characterized researchers' implication in the data collection process have often stressed the notion of the *purity* of data: Researchers "intrude" through their media and procedures, or worse, they "contaminate" the data by introducing some foreign body into an otherwise sterile field.

The assumption behind these metaphors of purity is that the researcher must not adulterate the social world in which the data exist, but must rather work in the manner of the biologist who observes the life within a Petri dish without using instruments that might disrupt the natural biological processes unfolding in the self-contained microsystem. The belief that data are pure implies that researchers must observe and capture the activity within a research site without disrupting the course of events as they would unfold without study or intervention. Data collection procedures, according to this metaphor, must not affect this insular natural process, but must instead be neutral and inconspicuous in order to capture data in their immaculate form.

In contrast, the Vygotskian framework I am outlining challenges the appropriateness of the purity metaphor in social science research. From a Vygotskian perspective, data are social constructs developed through the relationship of researcher, research participants, research context (including its historical antecedents), and the means of data collection (cf. Berger & Luckman, 1966, for their assertion of *the social construction of reality*). In this chapter my goal is to explicate Vygotsky's notion of the development of consciousness and relate that view to the conduct of research. I will begin by providing my understanding of Vygotsky's conception of the *zone of proximal development* (ZPD). The conception of the ZPD that I outline draws on Vygotsky's emphasis on human development's mediation through tools and signs, suggesting that the mind is elastic and unbounded. I hedge any claims to having an authoritative understanding of the ZPD because it has

CHAPTER 3

become all things to all people, thus both making it a pervasive reference in social science research and rendering it so amorphous that it requires explication for particular applications.

To begin this discussion, I first review the ZPD as explained by Vygotsky on the three occasions I have found in which he refers to it in his own writing (1978, 1987, 1998a). I then provide an expanded notion of the ZPD by situating his own very brief account in the context of both his more extended cultural-historical project and more recent scholarship conducted in this tradition. With a working definition of the ZPD proposed, I next lay out methodological problems emerging from this conception of the ZPD, including problems of defining research, identifying an appropriate unit of analysis, considering the manner in which tasks are interpreted by various stakeholders in teaching and research, understanding the relationship between evidence and telos, and considering the mediational role of assessment. Following these considerations, I look at the relation between research and teaching from the Vygotskian perspective I have outlined. Finally, I review the research of Vygotsky's student and collaborator A. R. Luria (1976) and offer a critique of his often-cited research on literacy development in remote Soviet provinces during a time of economic transformation, questioning his conclusions through the Vygotskian lens through which I view his work.

THE ZONE OF PROXIMAL DEVELOPMENT

Vygotsky's Account of the ZPD

The ZPD has become, in all likelihood, Vygotsky's most widely referenced notion, whether it is relevant to the work being indexed or not. For such a well-known phenomenon, however, the ZPD actually gets little attention in Vygotsky's own voluminous writing. Vygotsky explains the *zona blizaishevo razvitiya* in what has been translated into English on the following occasions:

- in an essay published in *Mental Development of Children and the Process of Learning*, published posthumously in 1935 and translated as “Interaction between Learning and Development” in *Mind in Society* in 1978;
- in Chapter 6, Part 4.4 of *Thinking and Speech* (1987) as part of his discussion of scientific concepts;
- in section 3 of “The Problem of Age” (1998a), published in Volume 5 of the *Collected Works* focused on *Child Psychology*.

His limited attention to this construct lacks the richness available from putting his account into the context of his larger project of formulating a social-cultural-historical psychology of human development. I will first review his own account and its limitations, and then move to what I and others see as a version that is better situated within other aspects of his conception.

The zone described by Vygotsky (1987) is a set of parameters that defines a learner's range of potential in a formal instructional relationship. Instruction should

fall neither below the lower threshold nor above the upper threshold of the learner's parameters: "Productive instruction can occur only within the limits of these two thresholds" (p. 211). Between these boundaries is a "sensitive period" or "optimal [period] for instruction" (p. 212). Here "*The teacher must orient his work not on yesterday's development in the child but on tomorrow's*" (p. 211; emphasis in original); that is, on the buds that produce the fruits of learning, to use Vygotsky's expression. Instruction should therefore be pitched to the upper threshold so that it leads development toward culturally valued knowledge and concepts that the child may ultimately be able to apply independently: "what a child can do with assistance today she will be able to do by herself tomorrow" (Vygotsky, 1978, p. 87).

Vygotsky (1987) thus describes the ZPD as the difference "between the child's actual level of development and the level of performance that he achieves in collaboration with the adult" (p. 209) during a pedagogical process. Vygotsky's outline of the ZPD occurs solely within the context of a teaching-learning relationship between a pair of people, one more and one less knowledgeable (usually a teacher and child, but also a child and more competent peer). During this process "a central feature for the psychological study of instruction is the analysis of the child's potential to raise himself to a higher intellectual level of development through collaboration to move from what he has to what he does not have through imitation" (p. 210). This phrasing, as presented in translation, hints that a sort of "bootstrapping" is at work in Vygotsky's view that the child can "raise himself" above current levels of performance. Newman, Griffin, and Cole (1989) robustly contest any idea of individual bootstrapping in their reformulation of the ZPD as a *construction zone* characterized by joint activity in teaching and learning, emphasizing that whatever raising of the self occurs comes about through a collaborative, rather than solitary effort.

The passage referenced in the previous paragraph reveals that Vygotsky (1987) sees a role for imitation in his account of the ZPD, although his view of imitation allows for individual agency. He defines imitation as a process in which "there must be some possibility of moving from what I can do to what I cannot"; he explicitly distances himself from imitation as "mechanical activity" (p. 209), which he believes better characterizes the training of animals. Imitation, in contrast to the mimetic habituation involved in training, is part of what Vygotsky calls "instruction" in which one learns something "fundamentally new" (p. 210). Van der Veer and Valsiner (1991), relying on papers written by Vygotsky around the time he was working on *Thinking and Speech* (Vygotsky, 1933/1966, 1933/1984, 1935), describe this distinction as being "between insightful learning and trial-and-error learning. . . . children are capable of intellectual, insightful imitation. . . . teaching can evoke and promote their cognitive development" (pp. 344–345).

This capacity for insightful imitation is illustrated by the role of play or experimentation as a way of helping to create a zone of proximal development, i.e., to push its upper threshold through "the active imitation of a model through play" (p. 345). Both instruction and play—which refers more to experimentation than to

fun or frivolous activity—can push and extend one’s threshold for learning toward something fundamentally new, revealing the dynamic, flexible, and teleological nature of the ZPD. The idea of learning something new is central to Vygotsky’s genetic (i.e., developmental) method. Vygotsky thus characterizes the ZPD as an individual learner’s bounded “zone of . . . intellectual potential” (p. 209). The goal of a teacher, adult, or more capable peer should be to help learners do more—although not infinitely more—and solve more difficult tasks than they can independently.

The value of this ZPD construct lies in the idea of assisted performance toward new competencies within the learner’s range of potential. It suggests the importance of teaching in learning. Rather than children leading themselves toward self-chosen learning trajectories, as is the case in conceptions of literacy offered by Graves (1983) and others, teachers matter greatly in the manner in which they scaffold students’ learning toward particular abilities.

Vygotsky (1978) illustrates the ZPD with the example of a child advancing in development through the assistance of an adult or more capable peer. The child, he says, can perform at a developmentally more advanced level when assisted than when acting alone, and this difference in level of performance suggests that a learner has a range of potential rather than some fixed state of ability. Learners ultimately appropriate the knowledge transacted through assisted performance, with that knowledge passing from the “intermental” plane (between two or more people) to the “intramental” plane (the learner’s appropriation of socially-learned knowledge); that is, learners *appropriate* cultural and practical knowledge through a relationship with more experienced members of their society.

Vygotsky’s own account of the ZPD is relatively inattentive to more democratic collaborative activity of the sort championed by Newman et al. (1989), given that his focus was on school-based assessment. His idea of the ZPD challenged conventional assessment practices that viewed (and continue to view) children as individual actors whose school performances indicate their independent abilities and achievements. Vygotsky’s contention that assisted performance typically produces higher levels of achievement challenged assessment practices that viewed abilities as fixed and therefore as measurable in a definitive way, as remains the case with standardized tests of reading and other abilities.

Vygotsky’s own account is where many people end their consideration of the ZPD: as a cognitive zone held by an individual learner, within which the learner may achieve more through assisted performance than may be evident from solitary activity. Wilhelm et al. (2001), for instance, describe the ZPD as a “cognitive region, which lies just beyond what the child can do alone. Anything that the child can learn with the assistance and support of a teacher, peers, and the instructional environment is said to lie within the ZPD” (p. 16). From this perspective, a teacher may “scaffold” (Bruner, Wood, & Ross, 1976) a learner’s progress by leading the child toward new levels of competency toward the higher end of this cognitive region. This set of metaphors suggests that the teacher knows the best direction for thinking and learning, and that the student’s role is to accommodate to that

developmental path by learning how to navigate it within the bounds set by the teacher.

The scaffolding metaphor has its critics, and their reservations are worth noting. Searle (1984) posed the important question, *Who's building whose building?* In other words, the scaffolding metaphor suggests that the person providing the support will lead the learner toward the best possible learning outcome. The question "Who's building whose building?" raises questions about the extent to which a teacher's decisions are always in the students' best interests. Searle's question suggests the possibility that students might have entirely different needs and purposes than are served by the kinds of learning outcomes that the teacher has in mind; and, as I will review later, it suggests that the tasks themselves might be interpreted differently as well. It also implies a criticism about the conventional notion of the teacher as someone who teaches rather than learns. Critics of authoritarian approaches to schooling maintain that teachers ought to learn through the process of teaching. Their notion of a building, then, can potentially change through teachers' engagement with learners and their ideas about what needs to be constructed.

Searle (1984) is not the only critic of the scaffolding metaphor. Dyson (1990) finds it to be overly rigid and too focused on the teacher as expert. She suggests the metaphor of *weaving* instead, which she finds more flexible and democratic. A literal scaffold on a building provides a supporting framework for the structure and the builders who work on it. Both the building and scaffold are inert and immobile. Teachers and learners, however, are alive and animated. They are responsive to one another and so need to be both sensitive and adaptable. They mutually influence one another, which Dyson sees as a central reason for adopting the weaving metaphor, in which a common product emerges from joint activity. While the teacher often leads, she does so with careful attention to the child's progress; further, she remains open to the idea that the student may come up with an approach to learning to which a more impervious "scaffold" might be insensitive.

A final concern about the scaffolding metaphor is that it suggests that one scaffold is enough: A single scaffold serves to support the building process, the building goes up, the scaffold comes down, and the process is complete. When people learn through guided activity, however, scaffolds are continually being built, modified, adapted to the learner's growing understanding, or cast aside and replaced with something more appropriate in relation to the learner's conceptual and practical progress or new directions that either emerge during the process of construction or are newly recognized by teacher and learner as meritorious and therefore as candidates to displace the original pathway. A rigid notion of scaffolding thus appears inadequate in complex teaching and learning relationships.

The Expansion of Vygotsky's Dyadic Conception of the ZPD

Del Río and Álvarez (2007) argue that the ZPD is typically construed as an ahistorical instructional dyad. Yet for a Vygotskian analysis to have any relevance, the culture of the setting needs to be taken into account, including the ways in which the mediational tools emphasized in the interaction have a cultural value in the traditions and conventions that govern the setting. Overlooking that history, and focusing only on the elder or veteran and the learner, ignores the ways in which the various participants ascribe value to the means of mediation and bring prior ways of thinking and acting to their interaction.

A conception of the ZPD that takes these factors into account assumes the intersection of individual potential and cultural mediation. For the individual, it provides a means through which cognitive potential may be supported and directed toward new possibilities for achievement. The vehicle for this support and direction is *the social context of learning* (and by implication, of teaching), which provides mediational means typically made available by people in the setting who play a teaching role, whether that role is tacit or explicit. Conventional notions of teacher and learner have become problematized and complicated by those who take Vygotsky's career project into account when considering what is involved in a ZPD and how it provides direction for learning.

The expanded notion of the ZPD brings into play the three themes that Wertsch (1985) finds central in Vygotsky's theoretical framework: a reliance on a genetic (developmental) method, an assumption of the social origins of consciousness, and the axiom that mental processes are mediated by tools and signs. In the sections that follow, I review the inadequacies of the ZPD as briefly described by Vygotsky (1978, 1987) and as popularized in countless publications that focus solely on the limited notion that he briefly outlines, usually referenced to *Mind in Society* (1978). I then elaborate on the extensions made by those who have had opportunities to apply his ideas in new contexts with multicultural populations whose forms of mediation do not necessarily match those expected by their teachers, and with data more carefully collected and analyzed than were Vygotsky's in his Soviet laboratory in the 1920s and 1930s.

The more expansive interpretations of the ZPD developed by Vygotsky's theoretical progeny enable an extrapolation from Vygotsky's dyadic conception to such formulations as Moll's (1990) idea that the ZPD connects the learner with broader social contexts that mediate intellectual potential toward cultural frameworks for thinking. Vygotsky (1987) hints at this broader perspective by acknowledging that "our research demonstrates that these sensitive periods are associated with the social processes involved in the development of the higher mental functions" (p. 213). This factor enables a major shift by Moll and others. Moll, rather than seeing the ZPD as a learner's zone of intellectual potential as promoted through teacher-learner dyads, views it as "social contexts . . . for mastery of and conscious awareness in the use of . . . cultural tools" (p. 12).

Zinchenko (1995) provides a distinction between Vygotsky (1978, 1987) and his student and collaborator Leont'ev (1981) that helps to construct the theoretical bridge needed to adopt the broader postulation of the ZPD proposed by Moll (1990). Zinchenko describes Leont'ev's departure from Vygotsky, arguing that Vygotsky's cultural-historical psychology "was concerned with the problem of ideal mediators that exist between humans and between humans and the world. . . . The psychological theory of activity was concerned with the problem of real (i.e., concrete) tools and objects that humans . . . place between themselves and nature" (p. 44).

The ideal mediators described by Zinchenko were words and their meaning, which Vygotsky regarded as the unit of analysis for understanding the development of human consciousness. As one matures, one attributes increasingly complex meaning to words so that they take on the character of concepts, i.e., cultural generalizations that are internally consistent. A young child's conception of "ball," for instance, might include the moon and other round objects that do not meet a culture's standard for "ball." As the child grows in cultural experience and practice, the items included in the generalization become winnowed down to what might properly be included in the set of objects known as "ball." This development toward a culturally appropriate notion of the concept is available through investigations into the meanings that learners attribute to words. Through investigations into word meaning across the process of human development, Vygotsky asserted that higher, culturally-appropriate mental functions become evident and suggest learners' appropriation and development of cultural concepts.

Leont'ev (1981) was more concerned with *tool-mediated labor and action in the world*, including the use of psychological tools such as speech and the genres that enable it to cohere, but also including more tangible mediational means such as a pencil or fishing rod. From a semiotic standpoint, in the development of consciousness, Vygotsky's cultural-historical psychology foregrounds the sign, particularly the word, which represents the conceptual or the ideal. Leont'ev's shift foregrounds tool-mediated action and thus focuses on the material rather than the ideal. Neither sees the two as separate; each emphasizes one to account for the other.

Leont'ev's (1981) focus on tool-mediated action shifted the unit of analysis to *tool-mediated action* rather than the *signs* (words) produced by action. "Consciousness," he argued, "was not freed from the short rein of activity. Rather than giving rise to activity, consciousness was a secondary, though not second-rate, reflection of it" (p. 44). Leont'ev's concern was thus with the ways in which social action produces changes in consciousness. This emphasis in turn requires attention to the cultural and historical ways in which social action has become patterned, habitual, and proleptic, and to the particular tools—and ways of using tools—sanctioned in different settings.

Attending to the role of cultural tools and practices suggests that activity is intimately tied to the cultural settings in which social action occurs. Leont'ev's

attention to tool-mediated action has enabled current interpreters of Vygotsky *to view the ZPD more in terms of situated development than individual learners' zones of potential*. Leont'ev (1981) provided the grounds for viewing the ZPD as distributed throughout a setting rather than merely circumscribing an individual's intellectual potential. Moll (1990) describes the social system that constitutes the ZPD as "a characteristic not solely of the child or of the teaching but of the child engaged in collaborative activity within specific social environments. The focus is on the *social system* within which we hope children learn, with the understanding that this social system is mutually and actively created by teachers and students" (p. 11; emphasis in original).

For Moll (1990) and Newman et al. (1989) the ZPD is a tool-mediated setting or construction zone in which activity is directed toward cultural goals. The focus for these theorists is on the social systems in which human development takes place, making the cultural-historical setting of learning itself the zone of proximal development. This perspective enables an explanation of learning without the mediation of explicit instruction; learning can be accounted for through the learner's engagement with other cultural mediators. That is, if all cultural artifacts potentially have a tool function, then a ZPD can shape learning without a teacher being present. Rather, the artifacts themselves may represent social-cultural-historical values and teleological destinations, thus contributing to one's developmental trajectory through a process of tacitly assisted learning.

Teachers and adults undoubtedly have a crucial mediational role in children's learning, yet differential levels of expertise complicate conventional notions of who is teaching whom what. Although there is an agreement on the crucial role teachers and adults play, the nature of the assistance and mediation has been the subject of debate, and researchers are still trying to understand how much assistance and under which circumstances this assistance supports students' learning (Smagorinsky, 1995b). Sociocultural constructivist conceptions of teaching and learning relationships allow for considerable agency on the part of learners-as-teachers. Dyson's (1990) rejection of the "scaffolding" metaphor in favor of a "weaving" metaphor illustrates this more interactive, mutually instructive conception of the ZPD.

Moll and Whitmore (1993) underscore that the ZPD involves "the child engaged in collaborative activity within a specific social (discourse) environment" (p. 20). ZPDs thus lack the sort of containment asserted by Wilhelm et al. and involve more of the "weaving" implied by the etymology of the term "context" (Cole, 1996) and recognized by Dyson (1990). Moll and Whitmore (1993) propose that the key to understanding learning in classroom contexts is to attend to the social transactions that make up classroom life: "Within this analysis the focus of study is on the sociocultural system within which children learn, with the understanding that this system is mutually and actively created by teachers and students. What we propose is a 'collective' zone of proximal development" (p. 20). The notion of a collective zone of proximal development is related to the concept of distributed

cognition (Salomon, 1993), since knowledge is shared among participants in sociocultural activity and manifested in the artifacts of human production (Rogoff, 2003), each with unique affordances and constraints available both through the material form of the artifacts themselves and the social practices that guide action in particular settings (Martínez-Roldán & Smagorinsky, 2011; Wertsch, 1991).

An apt definition of the ZPD applied to classroom practices for Moll and Whitmore (1993) must include the active child *appropriating* and *developing* new mediational means for learning. Shifting the emphasis from the adult/more-competent-peer and child dyad to what an individual can accomplish through participation in joint, situated sociocultural activity opens up possibilities to understand learning as a tool-and-sign-mediated, cultural-historical process. Although gaps between those assigned different formal roles such as teacher and student might remain superficially in place, these gaps can mask other ways in which task-and-setting-appropriate knowledge can be distributed more equitably across relationships.

This sociocultural perspective enables researchers to study people's use and transformation of cultural tools and technologies and their involvement and participation in the social, discursive, and cultural practices of their families and communities. Such practices are not fixed, but rather change in relation to the protean dynamics of interpersonal and intrapersonal action and the teleological goals toward which action is directed in relation to task, setting, and participant factors (Rogoff, 2003; Smagorinsky, 2001; Wertsch, 2000).

This expanded notion of the ZPD has powerful methodological significance for educational researchers. The implications stem from a conception of the extent and character of the zone itself, in particular the way the conceptualization of the ZPD suggests that the mind is not fixed in its capacity but rather provides a range of potential. The mind, therefore, is both *elastic* in terms of the different directions cognitive growth may take depending on the sociocultural environment in which it develops, and *unbounded* in terms of its scope and potential for growth.

The mind's elasticity is reflected in Vygotsky's notion of "higher" or sociocultural mental processes. In this view, the type of thinking appropriated depends on the historical and cultural knowledge and practices available through the surrounding adult community and the resultant form that adult assistance takes in the context of a culture's teleological trajectory. In other words, "higher" mental processes have no specific operations, but embody the most sophisticated ways of thinking that a particular culture has developed over the years and passes down from generation to generation. Tulviste (1991) has argued that thinking develops according to the types of problems an environment presents to learners in a culture to solve. Through activity in the environment, people develop higher mental processes that are appropriate to addressing culture-specific needs.

Hundeide's (1985) critique of Piaget (see Chapter 2) illustrates problems that can occur when one developmental path is criticized according to the structure of

another, a problem I review later in this chapter with regard to Luria's (1976) work in remote, newly-incorporated Soviet hamlets. In this conception of the development of thinking, "universal" operations are possible only insofar as universal human experiences allow for the development of common ways of knowing. Even in the case of survival-driven human needs such as sex drive and hunger, conceptions of appropriate practices are rooted in cultural values and vary from group to group.

Just as crucial from a methodological standpoint is the second set of potentials, the unboundedness of the mind. The mind is unbounded in two ways, one related to an individual's *capacity* for development and one related to the *role of tools* in mediating development. As is frequently noted in accounts derived from Vygotsky's (1978, 1987) limited notion of the ZPD, the mind is theoretically limitless in its potential for cognitive growth (Cazden, 1979). The zone provides for a *range* of ability, with the upper reaches continually in a state of change, both in terms of their presumed ceiling and the types of thinking—the higher mental functions, in Vygotsky's parlance—afforded by cultural practice. Development consists of using socially mediated assistance to move toward the higher levels of the range, with that range always itself developing into a new and more complex state.

The other important implication of the unbounded mind, one with profound ramifications for research methodology, concerns the limitlessness of the mind in terms of its physical location due to the reliance of thinking on tools and signs. Many psychological and philosophical accounts of the human mind have it locked within the skull (see Chapter 2). Descartes, Rousseau, Freud, and others have posited a mind/matter dichotomy where the mind exists in a "natural" state and loses its purity through association with society, even becoming corrupt in the view of Rousseau and Freud through social transactions. According to Newman et al. (1989), in a Piagetian conception "direct instruction will actually inhibit the child's understandings if instruction gets in the way of the child's own exploration" (p. 92).

From the perspective I am taking of an expanded notion of the ZPD, unadulterated development could only take place *in vacuo*, a state not possible in human society. Vygotsky's distinction between biological (lower) and socioculturally mediated (higher) mental processes provides the framework for a view of development in which biological factors afford the range of a learner's cognitive potential (just described as a learner's *capacity* for development in Vygotsky's limited conception of the ZPD). Specific ways of thinking then take shape as the individual's "higher" mental processes through the learner's use of mediational tools that he or she uses to appropriate the cultural-historical means of cognition that characterize mental adaptation and transformation within the surrounding social milieu. Vygotsky's insistence on the inherent social nature of development challenges the mind/matter dichotomy (see, for instance, Rogoff's [1990] critique of Piaget) and raises questions about the extent to which "natural" development is possible. If development is socially mediated, then commerce with other humans does not contaminate or corrupt the natural mind but rather provides the tools and signs through which the inherently social mind develops according to particular cultural codes.

In this conception the ZPD is not restricted to the internal symbol systems of the individual alone, but includes the tools within a social context through which learners mediate thinking and activity. If the mind is socially distributed and develops through activity involving cultural tools, it is unlimited in the sense that its development is inseparable from the tools of mediation, which themselves are often corporeal things (e.g., computers, shovels) that extend out into and help to shape the material world. The means of mediation can also be invisible yet powerfully influential in shaping thought and communication, such as the speech genres that govern discourse and thus ideology in specific sociocultural settings (Bakhtin, 1986; Marshall et al., 1995; Smagorinsky & Fly, 1993; Wertsch, 1991); or so embedded in people's daily lives that they do not notice them as tools, such as a speedometer or appointment book (Pea, 1993).

These tools have no inherent value and use, but take on meaning *as tools with specific values and uses* through the cultural-historical functions that members of a society have found for and attributed to them. Psychological tools thus link individual minds to other minds, both those that are immediate and contemporary and those that have provided the cultural antecedents through which mediational tools accrue value and assume meaning. The mind is thus spatially unbounded in that, through the tools of mediation, it extends out and is connected to the social and cultural world in which it develops. From a semiotic standpoint, the signs that a culture establishes to order its world require tools for creation and interpretation. Cultural tools and semiotic signs thus link people across generations as well as to their contemporaries.

METHODOLOGICAL ISSUES IN TAKING A VYGOTSKIAN PERSPECTIVE

Defining Research

In this section I will examine research as a social construct. My effort, very broadly speaking, will be to discuss empirical research, which I view as encompassing a broad range of methodologies, including those typically characterized as "qualitative" and "quantitative." Regardless of whether a methodology relies on numeric representations of data or verbal "thick descriptions" of life (Geertz, 1973), empirical research makes claims based on data and is typically presented in some form of argument, at least as reported through the continually evolving format specified by the American Psychological Association (e.g., American Psychological Association, 2009, and its previous five editions). More recently, literacy researchers have adopted other formats, such as narrative accounts, to present empirical data (see, e.g., Schaafsma & Vinz, 2011). Behrens and Smith (1996) have identified five features of data and their use in research, regardless of how they are collected and analyzed: The act of analysis is a construction of the researcher, all data are reduced to symbols (usually words or numbers), the process of analysis is social, the goal of analysis is to reduce complex data to a manageable summary, and the results of data analysis are provisional and contestable. My

CHAPTER 3

effort here is to avoid the polemics that often characterize methodological disputes (e.g., Tobin & Kincheloe, 2006), and instead to take a pluralistic and inclusive view of research.

Empirical research itself is a social construction, being developed and practiced primarily in Western cultures that value the development of "scientific" thinking (Vygotsky, 1987); that is, the development of formal concepts that are abstracted from the immediate context of their usage and used to develop formal rules for broader application than is available from the setting of initial learning. Empirical research thus typically strives for generalizability from the evidence found in the context of particular studies, with principles derived for application to other similar situations, if not to all situations. Even research that focuses on the particular can offer general principles, such as Smagorinsky and Coppock's (1994, 1995a, 1995b) argument that the unique acts of meaning construction found in the artistic composing processes of case study students suggest the need to reconsider the uniformity in typical school assessment, or the argument that case studies can be generalized in a limited way to people of background and experience reasonably similar to those of the research participant (Smagorinsky, Wilson, & Moore, 2011).

As cultural practice, research serves both to represent values and shape them; research is thus both sign and tool. Bazerman's (1988) extended analysis of the genre and activity of the experimental article in science reveals the ways in which research is both sign and tool for regulating cultural behavior (cf. McCloskey's [1985] analysis of the rhetoric of economics, which he argues relies on "scientistic" language using "hard" empirical data to make political arguments). Bazerman finds that the genre of the scientific article has evolved over time along with changes in the field, thus simultaneously both representing and regulating activity. The *Publication Manual of the American Psychological Association*, he argues, "embodies behaviorist assumptions about authors, readers, the subjects investigated, and knowledge itself. The prescribed style grants all the participants exactly the role they should have in a behaviorist universe" (p. 259).

Unit of Analysis

Because development involves goal-directed, tool-mediated activity, the unit of analysis for psychological study cannot be an artifact of learning that presumably represents a crystallized, fully-formed state of development independent of the artifact's cultural significance and the means through which the learner has appropriated an understanding of how to produce it. Vygotsky (1978) criticized psychological researchers who train research participants in how to approach tasks and then conduct a formal data collection during an activity that follows the training. To Vygotsky, the training sessions are the most theoretically compelling periods of activity that take place during psychological research in that *they represent the occasions during which learning occurs*. In the training sessions the partici-

pants learn how to use the mediational tools in what the researcher believes to be the most appropriate manner, a process that involves the learner's development in Vygotsky's limited notion of the zone of proximal development. The process of appropriation often takes place during training as researchers and participants work toward intersubjectivity in relation to the task in question, a problem I review later in this section.

To Vygotsky, this process is of infinitely greater theoretical importance than the more fully-appropriated knowledge that is often studied during psychological research; or, conversely, the participant's *lack* of appropriation of the researcher's conception of suitable tool use that leads to "poor" performance and thus deficit-driven judgments of a participant's cognitive abilities. By focusing on the idea that the data collection captures the participants' "ability" level instead of their capacity for employing the research's mediational tools for development toward a specific cultural end, such studies misrepresent the developmental process and the various participants' relationships with the tools of mediation.

The appropriate unit of analysis of psychological study also cannot isolate variables that are inseparably linked in the developmental process, although both in Vygotsky's time and in current psychological research, learning has often been studied through a breakdown of a whole process into its parts (e.g., the "cognitive skills" focus of much research in reading and other fields). Efforts to account for the whole of a process in terms of an analysis of its discrete parts overlooks Vygotsky's (1987) insight that "the separate functions are linked with one another in activity" (p. 43); they make up a *unit* of analysis "that possesses *all the basic characteristics of the whole*" (p. 46; emphasis in original). To Vygotsky, the word embodies this quality; to Bakhtin, the longer utterance enables this analysis; to Leont'ev, the appropriate unit is collective action.

Leont'ev's (1981) extension of Vygotsky's unit of analysis from word meaning suggests that researchers of psychological processes cannot separate the changes in consciousness that are usually the objects of psychological study from the goal-directed, tool-mediated activity through which the changes take place. In that tool use is fundamental to changes in consciousness such as the concept development central to Vygotsky's (1987) notion of cognitive growth, researchers need to understand the relation among the mediational tools, their historical cultural uses within the learner's community, their means of employment in the learning (and research) environment, the intersubjectivity between the learner's understanding of the learning task and the evaluator's (teacher's or researcher's) understanding of the task, and other factors that make up the interrelated social environment of learning.

Task

Both researchers and teachers often operate on the assumption that the learning tasks they present to students are understood in the same manner by all stake-

holders. In particular, they tend to assume that the task *as they envision and intend it* is in turn taken up by learners in the fashion in which they offer it. Newman et al. (1989) refer to this phenomenon as the problem of assuming a *task or problem isomorph* in which a learning problem is presented to people of different backgrounds in different settings under the assumptions that this standardized procedure will be interpreted identically by all who encounter it.

On a large and diffuse scale, this assumption drives any standardized assessment. It can also affect smaller populations such as classrooms, such as when a teacher tells students to write an “essay” on a topic without specifying and teaching students the specific essay properties and how to produce them in order to communicate effectively through their texts according to what their teacher anticipates. Students whose prior understandings produce a match with the teacher’s expectations have a distinct advantage over those whose prior training and experiences have given them a different conception of what an “essay” might mean. To some teachers, for instance, a formal essay must never include the word “I”; for others, stating one’s opinion requires an acknowledgement of subjectivity. Students who make the wrong assumption about the teacher’s expectations on such matters are typically corrected and/or downgraded for invoking the wrong conventions to suit this particular teacher’s taste.

The role of the task is central to any conception of the ZPD. Newman et al. (1989) describe the problem of presenting tasks in assessment as follows:

Crudely speaking, the source of the difficulty in making cross-situational cognitive comparisons is that different social constraints operate on people in different contexts, be they in school or out. The psychologist’s task (classifying paired associated learning, logical reasoning) is not a physical object in the world, although it often includes physical objects. A task is, rather, a set of actions, the goal of which is prespecified by the psychologist along with a set of constraints that must be honored in meeting the goal. . . . [W]e have to deal with some difficult problems of “task analysis” in order to think coherently about task similarity across contexts. (p. 18)

Newman et al. (1989) are concerned that “statements about children ‘doing the same task’ better or worse in one of the settings are difficult (if not impossible) to warrant if we depend on discovering ‘naturally’ occurring tasks” (p. 19). Their use of the term “naturally” appears in quotations because, from a Vygotskian perspective, human life is always social and thus conditioned historically and culturally; it is never the pure activity assumed in the “contamination” metaphor for social science research. Rather, they refer to actions that take place without a researcher’s intervention as they unfold in the normal course of events. Newman et al. acknowledge, in accounting for the problem of task isomorphism, that in employing one sort of task across settings, “there would be limits to the degree of ‘sameness’ that we could arrange. . . . We phrased our strategy as follows: *Let’s*

try to make a cognitive task happen several times and see how different social settings pull it apart in different ways" (p. 19; emphasis in original).

Their attention to the mediational role of a variety of settings follows from their belief that "a cognitive task is always a social construction with two aspects. The first aspect arises from the broad historical context of the psychologist's work. The second arises from the immediate 'on-line' interaction between the experimenter and subject" (p. 20). Any participant, including a teacher or researcher, is part of, contributes to, and acts in response to the setting of activity as it is situated in a variety of historical mediators: those of the academic or professional discipline in which the work is situated, those of smaller communities of practice whose cultural activities contribute to how work gets accomplished, and whatever other mediational means provide a motive for the setting and privilege particular tools and signs through which the teleological ends are promoted.

Key to any consideration of the role of a task in teaching and learning is the *learner's* construal of the task, a factor that is entirely overlooked in the assumption of a task or problem isomorph, whether it is presented on a grand scale as in standardized testing (see Chapter 5) or on a smaller scale as in a teacher presenting tasks under the assumption that all students interpret them in an identical manner. Newman et al. (1989) emphasize that "The appropriation process is reciprocal, and cognitive change occurs within this mutually constructive process. While instructional interactions favor the role associated with the teacher, we cannot lose sight of the continually active role of the child" (p. 58). I interpret their insight to be important at two levels. First, researchers and teachers need to appreciate and acknowledge whatever idiosyncratic way of thinking any individual learner might bring to an instructional setting that might lead to a unique way of understanding a task. More critical from a cultural-historical perspective are the ways in which people with different cultural experiences with tools and signs and the ends toward which they are used bring particular cultural-schematic knowledge of tasks to the setting.

In prior work I have emphasized the importance of *goal congruence* in effective instruction (Smagorinsky & O'Donnell-Allen, 1998a). Goal congruence refers to the degree to which teachers and students share broad dispositions toward school and its value, and thus participate willingly in instructional activities with reasonably similar understandings of *why* tasks are carried out in classroom settings. That is, even if the task itself might require explication, teachers and students are more or less in agreement that academic tasks have some value, even if that value for students might be for the pragmatic purpose of advancing to the next academic level. The issue of goal congruence becomes problematic when schools are generally conducted to accommodate a certain sort of learner, one whose orientation to society follows the values of the White middle class. Many researchers have noted the degree to which working class students (Eckert, 1989), students of different racial backgrounds (Castagno & Brayboy, 2008), immigrant students with different ways of knowing than are valued in school (Ballanger, 1989), and other students

from outside the presumed cultural mainstream think and act according to cultural histories that make their formal education in school alien and unrewarding.

As I understand Newman et al. (1989), some degree of goal congruence must be in place in order for a task to serve the learning goals of the student. Even with such congruence, understandings of the task need to be negotiated and clarified in teaching and research so that undertaking the task serves a real learning purpose for students and so that when teachers or researchers assess students' performance on tasks, they do so with attention to the ways in which the students have interpreted it. Given that the task or problem will never be truly isomorphic across learners or settings, instruction needs to be clear and attentive to learners' characteristics and how they have come into being, and assessment needs to be equitable in terms of how learners of diverse cultural-mediational backgrounds perform on the tasks. That is, instruction and assessment cannot presume the generic child, but rather must be sensitive and responsive to how collectives and individuals understand the instruction and expectations of educational tasks.

Telos and Evidence

In considering the form that reports of research findings take, Bazerman (1988) asserts that the scientific article relies on a notion of argumentation that is based on the use of some sort of evidence to support a claim (see Toulmin, 1969). While this very argumentative structure itself represents a socially constructed process and form of thinking, one generally attributed to the European Enlightenment, so does the problem of what counts as data, and the question of what a set of data counts as evidence *for*. Once again the problem of telos in development arises: If something is believed to count as data, and if those data serve as evidence to support a claim about the extent of human development found in human behavior, then there is a necessary relation between the assumptions about the optimal endpoint of development and assumptions about the data that serve as evidence to identify progress toward that destination.

Any assessment procedure or instrument embodies the researcher's sense of an appropriate developmental path for people to follow, and produces data that identify people's progress or achievement according to the direction of that path; i.e., it is fundamentally teleological and proleptic. McCarthy and Gerring's (1994) account of the revision of DSM-IV illustrates this phenomenon well. They argue that the revision of the most important book in the mental health profession, the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV), was not so much an effort to change the text but rather served to achieve the social and political ends of its authors to establish the superiority of the biomedical model of mental "disorder."

In the biomedical model that undergirds the revised text (which has been revised again since their study), "mental disorders are understood, like physical diseases, as

discrete entities, generic across cultures, which are clearly bounded from each other and from normal conditions. The task of researchers in the biomedical model is to see patients not as individuals but as members of populations grouped according to observable symptoms" (McCarthy & Gerring, 1994, p. 150). Evidence of the presence of such "disorders"—or as I prefer to call such departures from the neurological norm, *neuroatypicality* or *extranormativity*, because these terms do not imply that difference is commensurate with deficit (Smagorinsky, 2011b)—comes in the form of a patient's performance in diagnostic tests and their proximity to norms in large populations, such as the agreement among patients on the identification of the images in a Rorschach test.

Such a model is distinct from other approaches to understanding anomalous psychic conditions and behavior, such as Jung's psychoanalytic methods, "which understand mental disorder according to theories of intrapsychic workings and which focus on individual life stories rather than on patient populations" (McCarthy & Gerring, 1994, p. 151). McCarthy and Gerring argue that the competing models are at odds in their assumptions about the sources of mental disorder (itself a socially constructed notion, particularly the notion suggested by the *dis-* prefix that a deficit is in play), the elicitation procedures for gathering data, the material substance of data, and ways of analyzing data. They are further "competing" in the very real sense that the establishment of authority of a particular method of treatment has material benefits for its practitioners in terms of in prestige, influence, grants, consultations, fame, and other sources of gain.

A sense of telos is thus closely related to the question of what constitutes data and evidence and the problem of employing appropriate methods for collecting data. Data collection procedures imply a belief in a particular developmental endpoint and additionally can serve to establish the authority of the researcher. According to the work of Bazerman (1988), McCarthy and Gerring (1994), and others, the scientific model dominates Western research and commands the greatest resources and attention, as evidenced by recent U. S. policies that specify the experimental research design as the most valid, and thus most fundable, method of inquiry.

Rather than producing objective data demonstrating advanced development, however, the scientific model produces instead culturally-shaped evidence of development towards a specific endpoint. Unlike the contributors to Tobin and Kincheloe (1996), who attribute hateful and pernicious intentions to quantitative researchers and their work, I bear no antipathy toward experimental researchers in education, although I have often questioned the assumptions that undergird their designs (e.g., Smagorinsky, 2009b; I have also questioned the assumptions behind qualitative studies in Smagorinsky, 1987). I do, however, reject the notion that such approaches provide exclusive access to understandings of teaching and learning.

The Mediatlional Role of Assessment

The social character of development becomes crucially important when researchers undertake the study of learning. When researchers enter a sociocultural setting to conduct research on developmental processes, they become part of that setting and thus become mediating factors in the very learning they purport to document. Rather, however, than "contaminating" the research environment, they become additional mediational means in a learner's development. Researchers provide mediation even when the learner does not personally interact with the researcher but instead has learning measured through the use of an instructional intervention and assessment vehicle. Such mediational means are not culturally neutral but rather are replete with cultural values, thus representing cognition that is socially distributed.

Empirical researchers have typically been concerned with minimizing the researcher's observational effects upon the performance of the research participants. Yet the conception of the ZPD I have outlined suggests that this concern is misguided because "avoiding" mediation is not possible when research is inherently mediational. The research of Moll and Greenberg (1990) raises questions about the objectivity of conventional assessment and points to the likelihood that all means of data elicitation embody a culturally-biased sense of telos that is reflected in both data collection procedures and the uses of evidence in argumentation.

Moll and Greenberg (1990) investigated the learning of Southwestern Mexican-American students both in school and in their home community. Concerned by the historical disproportionate failure of Latin@ students in American schools, they endeavored to identify the source of these students' failure, which had primarily been attributed to cognitive deficiencies. Moll and Greenberg found, however, that in their home communities the students engaged in a complex series of cognitive tasks, including repairing farm machinery, distilling medicine from insects, managing budgets, organizing work forces, and engaging in countless other challenging cognitive activities. In contrast, in school these same students were often judged by their teachers as "failing" academically, a designation that was then taken to represent their "ability" in all cognitive matters.

Taking a Vygotskian perspective, Moll and Greenberg (1990) disputed the judgments of the teachers and researchers who found these students to be cognitively deficient. They employed a distributed notion of the ZPD as the foundation for their analysis of what they believed to be an erroneous interpretation of students' academic performance. Moll and Greenberg argued that the students did not have a fixed level of "ability" that was "measured" by the neutral instruments of school assessment, but instead had a range of potential that had taken a particular cultural shape through their immersion in the agricultural community in which they had been raised. Their mediational tools for demonstrating competency in their community work included such means as using speech for cooperative undertakings, using physical tools such as wrenches to configure space in their repair of

machinery, and using other tools in social activity that were not central to school instruction or assessment. Rather, in school students were evaluated according to isolated performance on problems involving abstract reasoning, using mediational means such as standardized tests that were culturally alien to them.

Moll and Greenberg (1990) concluded that the determination that the students were cognitively deficient was a function of the culture-laden means of evaluation that were more congenial to students of European-origin middle-class backgrounds than to students of Mexican-origin agricultural backgrounds. They further concluded that the ZPDs—which in the expanded sense outlined by Moll (1990) included the social context of learning and the cultural tools it provided—that afforded opportunities for success in the Mexican-American community were not available in school. As a result the students performed poorly *and therefore were judged to be deficient*, a conclusion that Moll and Greenberg argue stems from a great misconception of the process of cognitive development and ignorance concerning the sociocultural character of the ZPD.

The problem identified by Moll and Greenberg (1990) goes beyond race- and ethnicity-related differences, although race and ethnicity often figure prominently in cultural studies. Lave, Murtaugh, and de la Rocha's (1984) research on grocery shoppers performing mathematical operations both in the supermarket and on paper and pencil tests parallels Moll and Greenberg's study in interesting ways. Lave et al. accompanied shoppers and audio recorded their calculations as they sought to find the best prices on products they intended to purchase. They found that the shoppers were virtually infallible in their mathematics in this situated activity. Yet these same people, when tested on identical mathematical problems presented in abstract form through the means of a paper and pencil test, performed quite poorly, answering fewer than half of the problems correctly. The findings were similar to those of Moll and Greenberg: These shoppers would be judged as "failures" according to the means of assessment used in school (and typically used in research on instruction and learning), yet through a more meaningful, concrete, and appropriate means of assessment, they performed with uniform excellence.

These studies illustrate the hidden problems involved in conducting research, even when the researcher takes precautions to prevent "contamination" from taking place. Simply by choosing a means of assessment, the researcher enters the learning environment with assumptions that a particular means of assessment is capable of determining learning. Moll and Greenberg (1990) have pointed out that the assumption that the means of assessment are neutral can have insidious and harmful implications for students who are not attuned to the type of higher mental processes cultivated for completing a given task according to the assessors' expectations. A reliance on these means of assessment erroneously assumes that a specific type of psychological mediation represents "achievement"—that is, represents progress toward a particular conception of telos—when in fact what is being measured is the cultural compatibility between learner and the means of mediation (cf. Newman et al.'s [1989] concern for assumptions about problem isomorphs).

If one accepts that higher mental processes are culturally shaped rather than

CHAPTER 3

universal in structure, most assessment vehicles used in school and research tilt the advantage of those students whose higher mental processes have developed in a way similar to those who create the assessment vehicles. The ZPD's developmental nature suggests that *the instruments of data elicitation are never neutral; they are instead always mediational*. The ZPD has an inherently developmental and semiotic character that is instrumentally affected by the learner's appropriation and implementation of a culture's psychological tools.

These factors contribute to the conclusion that *data on human development are inherently social in nature, and therefore the invocation of the purity metaphor is inappropriate in discussing investigations of learning*. Data can only be "pure" in a sterile environment, and human development takes place in a teeming social milieu. To assume that learning can be separated from its social foundations is to misunderstand the nature of the expanded, culturally-grounded conception of the ZPD; and to assume that the study of learning can be conducted through culturally neutral means is to misconceptualize the role of mediation in human development and to underestimate the effects of the introduction of any research tools into the learning environment. Indeed, the traditional reference to a participant in the research as a "subject" stresses the view that the participant is an "other" distinct from, and immune to, the mediating effects of the research process, a view that the Vygotskian position I am taking would regard as misguided.

RESEARCH AS TEACHING, TEACHING AS RESEARCH

I have argued thus far that a research process involves an underlying sense of telos, involves the mediation of data collecting methods, and involves a relation between what counts as evidence and what is accepted as teleological. Research results, I propose, are only valid when the learner is consonant with and can appropriate the mediational means of the research as useful cultural tools, and when the researcher takes into account the learner's appropriation of the research tools when finding evidence for a claim. In this conception, *valid research is inherently instructional* in that the congruence of learner and learning materials affords development (see Swanson-Owens & Newell, 1994).

One way to look at this conception of research is to compare research to teaching. While teachers and researchers often have different goals (Newman et al., 1989; Wong, 1995), teaching and research are alike in fundamental ways. Teaching, like research, involves a sense of telos. In many situations the conception of telos is overt in the identification of objectives and outcomes (Bloom, 1956; Tyler, 1949). However, even teaching approaches that are explicitly non-directional have optimal endpoints in mind. Noddings (1992), for instance, says that from a Deweyan perspective, "there is no end product—no ideally educated person—but a diverse host of persons showing signs of increasing growth" (p. 165). Regardless of whether the goals are specific or broad, teaching is always purposeful, whether the purpose focuses on content area goals, process goals, personal goals, or

endpoints of other developmental paths. What is critical is that a learner needs to share the teacher's sense of telos—must have some degree of goal congruence—in order for educational activities to enable development.

Teaching, like research, also involves *mediation*, primarily in the form of instruction and assessment. I use the term "instruction" here not to describe any effort by a teacher to promote new knowledge in students, but to describe the provision of forms of mediation that involve students in problem-solving activities using cultural tools. In this view of teaching, a teacher who demands that students use tools outside their cultural repertoires for tasks that do not build on their prior problem-solving experiences is not teaching, but assigning and testing. This is not to say that teachers should only require students to do what they already can do, for such a view would negate the need for schooling. It is to say, however, that when there is little or no congruence between formal instruction and students' prior culturally-fostered tool use, and when teachers make no effort to engage in a reciprocal relationship with students regarding appropriate tool use, instruction will fail.

Heath (1991) and others have pointed out that the mediational means required in school activities, while providing the tools necessary for success in mainstream society, need to be congruent in some way with students' prior learning experiences in order to enable them to meet scholastic goals. The problem of incongruence is most obvious in school, where attendance is mandatory rather than voluntary and where students may lack a belief in the goals of the institution and may experience discord with the tools through which they are expected to mediate learning. Formal learning environments such as faith communities, scouting, adult education classes, organized sports, and other self-chosen learning settings more typically involve harmony between learner's and institution's values, although each of these settings provides diversity across sites such that discontinuities are available in them as well. The difficulties of assuming a task or problem isomorph (Newman et al., 1989) are likely in virtually any action and any setting.

Teaching, like research, also produces *evidence* of a child's development toward an optimal endpoint, usually coming in the form of assignments that students follow for grades. Here the notion of congruence is also critical, for students are graded based on this evidence in ways that suggest their cognitive competence; and as many critics have pointed out (e.g., Moll & Greenberg, 1990), nonmainstream students are often labeled as cognitively deficient because of their lack of facility with the mediational means that produce the evidence for cognitive development in school settings.

Earlier I proposed that valid research is instructional. At this point I will propose that valid teaching represents inquiry—that is, research. Researchers teach through their mediation of student learning; teachers research through their mediation of student learning. This conception only holds up under the definition of validity that I have proposed, which is dependent on the expanded conception of the ZPD proposed by Moll (1990) that I have outlined in this chapter.

LURIA'S RESEARCH IN UZBEKISTAN AND KIRGHIZIA

I would like to conclude this discussion with an examination of the research of Vygotsky's student and collaborator Luria (1976), who headed up a research team that studied the impact of broad societal change on the thinking of residents of remote villages and mountain pasturelands of Uzbekistan and Kirghizia in the 1930's, areas newly incorporated into the Soviet Union. Luria argues that his study stands in contrast to what he calls "culturalogical" studies designed "to apply 'racial' theories to the data in order to prove the subjects' 'inferiority'" (p. vi). Yet in spite of his belief that he does not characterize his research participants in a denigrating way, he also says that the people he studied

had lived for centuries in economic stagnation and illiteracy, their development hindered among other things by the religion of Islam. Only the radical restructuring of the economy, the rapid elimination of illiteracy, and the removal of the Moslem influence could achieve, over and above an expansion in world view, a genuine revolution in cognitive activity. (p. vi).

Luria's (1976) remarks reveal that he has a specific view of telos, one that emerges from the same Russian middle-class view espoused by Vygotsky (1987) in valuing the development of speech-mediated scientific concepts as the ultimate form of cognitive maturity. As was *de rigueur* in the Soviet Union, he also focused on questions of economics and religion, both of which had specific forms under Lenin and his enforcement apparatus: a reliance on Marxist beliefs regarding communism and atheism. Luria's means of testing these remote peasants' cognitive activity were distinctly Western, as were the criteria for judging "mature" thought. The following examples illustrate how the peasants shared neither the researchers' sense of telos nor their value on specific mediational means. As a consequence, the research is, I believe, of questionable validity because the tasks lack the isomorphic quality assumed by the researchers, and the conclusions drawn are based on the culturally imperialist notion that deviations from conventional Western problem-solving patterns indicate cognitive deficiencies.

In testing the participants' abilities in the Western schooling practices of generalization and abstraction, for instance, Luria (1976) and his associates gave the villagers a set of items and asked them to determine which ones belonged in the set and which did not. To frame his presentation of data, Luria provides a developmental account predicated on the model of maturation typical of the children studied by Vygotsky (1987) in his metropolitan laboratory:

The child has yet to develop a general unified principle of operation; hence, he cannot construct a general unified category. He will group together objects such as a large blue circle (color), a small blue triangle (form), a small green square (size), a small green cube (color), and so on. The group of objects that

emerges reflects no unified concept but rather a complex of objects, each included on an individual basis. (p. 51)

Through analysis of this type, Luria claims to be working with "the psychological elements governing such taxonomic cognition," through which a "reliance on society-wide criteria transforms graphic thinking processes into a scheme of semantic and logical operations in which words become the principal tool for abstraction and generalization" (p. 52). Luria's notion that cognition is "taxonomic" and that there exist "society-wide criteria" lead him to judge the villagers as being under-developed and indeed child-like, at least according to the developmental model he posits as being optimal.

The following excerpt, for instance, typifies his many characterizations of the villagers he studied as under-developed. He reports that they

replaced a theoretical task by a practical one: to reproduce the practical relationships among objects. This tendency became apparent early in the experimental session when subjects immediately began to evaluate objects in isolation and designate their functions ("this one" is needed for such-and-such a job, "that one" for another). They saw no need to compare and group objects in abstract terms and assign them to specific categories. Later on in the experiment many of the subjects were able to overcome this tendency. (p. 54)

Here, Luria (1976) appears to be using questionable means to investigate the culturally-appropriate cognitive activity of the villagers, and therefore seems inattentive to the manner in which his data are socially constructed, or to the manner in which the training involved in early experiments might contribute to the villagers' ability "to overcome" their culturally-engrained ways of approaching the research tasks in later iterations.

Luria's (1976) second contribution to the social construction of his data concerns the set of tasks presented to his participants. As he notes throughout his report, the villagers' lives (and therefore their thinking) are centered around situated, contextualized activity. Given their great isolation in these remote regions and lack of transportation and communication vehicles to contrast their ways of thinking with those of others, it is hardly surprising that their cognition was fixed at the local and concrete, rather than abstract level. Yet the tasks Luria presents them with are problems assuming a propensity to engage in generalization or "scientific" (i.e., academically-learned) thinking. The means of assessment, therefore, are not likely to be responsive to the type of higher mental processes developed within the society and functional to their way of life. The problem Luria creates through his use of inappropriate cultural tools is similar to the one Moll and Greenberg (1990) identified in their study of situated cognition in Southwestern Mexican-American communities and schools.

CHAPTER 3

Luria (1976) contributes to the social construction of data in a third crucial way, by eliciting responses from his participants in face-to-face social transactions (see Chapter 9). Here, for instance, is a segment from what he refers to as his "experimental protocols":

Subject: Rakmat., age thirty-nine, illiterate peasant from an outlying district; has seldom been in Fergana, never in any other city. He was shown drawings of the following: *hammer-saw-log-hatchet*.

"They're all alike. I think all of them have to be here. See, if you're going to saw, you need a saw, and if you have to split something you need a hatchet. So they're *all* needed here."

Employs the principle of "necessity" to group objects in a practical situation.

We tried to explain the task by another, simpler example.

Look, here you have three adults and one child. Now clearly the child doesn't belong in this group.

"Oh, but the boy must stay with the others! All three of them are working, you see, and if they have to keep running out to fetch things, they'll never get the job done, but the boy can do the running for them . . . The boy will learn; that'll be better, then they'll all be able to work well together."

Applies same principle of grouping.

Look, here you have three wheels and a pair of pliers. Surely, the pliers and the wheels aren't alike in any way, are they?

"No, they all fit together. I know the pliers don't look like the wheels, but you'll need them if you have to tighten something in the wheels."

Again assigns objects functions in a practical situation.

But you can use one word for the wheels that you can't for the pliers—Isn't that so?

"Yes, I know that, but you've got to have the pliers. You can lift iron with them and it's heavy, you know."

Still, isn't it true that you can't use the same word for both the wheels and the pliers?

"Of course you can't." (pp. 55–6)

The researcher continues questioning Rakmat in this fashion, seemingly incredulous at his inability to classify the objects in a manner consistent with the researcher's notion of appropriate grouping. At the same time, Rakmat appears to be resistant to the researcher's efforts to lead him to different responses. Luria concludes, "we had no luck getting these subjects to perform the abstract act of classification. Even when they grasped some similarity among various objects, they attached no particular importance to the fact" (p. 59). In this case, even with the researcher's great efforts to affect the data ("Still, isn't it true that . . . ?"), Rakmat persisted with his view of the problem, a condition that leads Luria to discuss as among his "principal facts derived from the tests" that Rakmat and others were not yet ready "to become part of a more advanced culture" (p. 79).

The cultural differences between Rakmat and the research team—and their concomitant different purposes in posing and responding to the questions—no doubt account for the discontinuity of the interview. Intersubjectivity between researcher and participant appears to be a crucial factor in the social construction of data, contributing to the degree to which researcher and participant grasp and build on one another's articulated thinking and share a sense of telos and value on the mediational means that enable people to work toward this sense of optimal endpoint.

FINAL REMARKS

I conclude this chapter with this lengthy discussion of Luria's (1976) work because it has become so widely cited in Vygotskian research and because it contains so many of the problems that I have discussed in research conducted without consideration for the methodological implications of an expanded conception of the ZPD. Luria's concluding paragraph in the monograph refers to the "backward and remote region" he has studied, a characterization that reveals his disposition to regard his own cognitive development as representing an optimal path toward a teleological endpoint and judge those who are different as more child-like and less advanced. I would argue instead that this characterization of these people has come through inappropriate means that have ignored the semiotic structure of their communicative environment and teleological trajectory of their culture. The judgment of their cognition as undeveloped is a social construction made from a relative position that does not take into account the zones of proximal development that structure learning and development in the community under study.

Educational research is conducted, presumably, to improve education. Assumptions of the neutrality of research procedures and the purity of research environments, however, may lead to spurious conclusions about the people who participate in the research and the development of inappropriate policies to remedy perceived educational problems. Researchers need to acknowledge the social construction of the mediational tools provided for learning during both training and assessment and reflect on how their own implication in the research process affects teaching

CHAPTER 3

and learning and the evaluation of both. Their effort should not be to avoid participating in the construction of data, but to recognize and account for the ways in which they do contribute to the shape their data take. Indeed, in prior work (Smagorinsky & O'Donnell-Allen, 1998a), I have argued that the Hawthorne effect should not be avoided in research design, but actually cultivated if it contributes to better learning. Research should not only be beneficial in its generalizability, but to the participants whose learning is affected by research and its interventions.

CHAPTER 4

THE CULTURE OF SCHOOL AND HOW IT SHAPES LITERACY LEARNING

In considering the consequences of education on human development, Cole (2005) takes a cross-cultural and historical perspective that leads him back to the earliest classrooms of Indo-European civilization. He notes the historical depth of educational traditions, inferring great stability based on the arrangement of a Sumerian classroom in the ancient city of Mari, Syria.¹ This classroom likely originated in the city's second golden age under the Amorite dynasty that lasted from roughly 1,900 BCE through 1759 BCE, when the city was sacked by Hammurabi, sixth king of Babylon. Students occupied its seats 1,400 years before Nebuchadnezzar II is believed to have built the Hanging Gardens of Babylon.

Cole surmises that the last four millennia have seen great continuity in educational practice in a number of regards. As the photograph reveals, students sat in rows—here, literally fixed in stone—facing the teacher. This arrangement, in spite of other developments in teaching practice, has served to guide instruction in most Western educational settings from the Sumerian civilization of antiquity through the present. It is as old as the idea of formal teaching and learning in the history of human social life.

Other ways of teaching and learning have been developed over the millennia. Over 1,500 years after students sat through their teacher's Sumerian lectures, Socrates taught by means of cross-examining and typically refuting his students' assumptions, revealing their inadequate reasoning through the dialogues that he manipulated. In the late 18th and early 19th centuries, Jean-Jacques Rousseau and Johann Heinrich Pestalozzi formulated educational visions that centered on the learner. Rousseau pioneered the Romantic conception of the (male) child as learner and the adult as guide and companion in educational experiences rather than director and authority, an idea that has endured in many forms in Western education, if largely on the margins. Educators from Montessori to Dewey have continued to outline child-centered approaches that have remained on the fringe of conventional schooling, recommending alternative possibilities to the teacher-and-text-centered pedagogies that have ruled Western (and Asian) educational practice for millennia yet not in so convincing a way as to displace the established norm.

Indeed, these alternative approaches have been reviled by political conservatives because of their investment of authority in newly-emerging understandings rather than historical and traditional values, practices, and knowledge. Dewey's (1916)

CHAPTER 4

Democracy and Education was recently named one of “the Ten Most Harmful Books of the 19th and 20th Centuries” by the politically and socially conservative organization Human Events (2005), ranking fifth after Marx and Engels’ (1848) *The Communist Manifesto*, Hitler’s 1925-1926 *Mein Kampf*, Mao Zedong’s (1966) *Quotations from Chairman Mao*, and Kinsey’s (1948, 1953) *The Kinsey Report*. Based on this ranking, progressive, student-centered instruction designed to promote democratic social processes and the discovery of new knowledge is considered almost as frightening a prospect as communism, fascism, and sex. It is considered an even greater threat to conservative sensibilities than the books ranked behind it: Marx’s (1867-1894) *Das Kapital*, Friedan’s (1963) *The Feminine Mystique*, Comte’s (1830-1842) *The Course of Positive Philosophy*, Nietzsche’s (1886) *Beyond Good and Evil*, and Keynes (1936) *General Theory of Employment, Interest and Money*, making Dewey a greater menace to conservatives than are critiques of capitalism, the National Organization for Women, more sex, atheism, and a trust in government as an agent for social progress.

Although a favorite of U. S. professors of education, Dewey and his progressive agenda (not to mention Marx and his advocacy for the proletariat) appear to have little presence in U. S. schools. In his history of English education, Applebee (1974) notes that a number of pedagogical traditions are available to teachers, most of which derive from the template set by ancient Mesopotamian classroom spaces (cf. Cuban, 1993). While the students’ seats are no longer made of stone and only rarely remain bolted to the floor, they typically stay fixed in one location, facing forward so that students may concentrate on the teacher undistracted by their classmates and whatever they might have to say. The image presented in [Figure 1](#) of my Aunt Alice’s elementary school classroom in Brooklyn in around 1920 shares similarities with both the Sumerian classroom described by Cole (2005) and the UC-San Diego classroom at the Congress of the International Society for Cultural and Activity Research (ISCAR) at which I presented a version of this chapter (Smagorinsky, 2008c), in which the chairs were indeed bolted to the floor.

Dewey’s (1902) progressive views emphasize engaged citizenship that respects diversity of individuality and cultivates critical, socially engaged intelligence that produces democratic classrooms based in learner-centered, constructivist learning that proceeds from joint activity (John Dewey Project on Progressive Education, 2002). Such student-centered, collaborative, activity-oriented, inquiry-driven, and socially-mediated methods have had many incarnations over the years. From the schools founded by Italians Maria Montessori in Rome and Loris Malaguzzi in Reggio Emilio, to Kilpatrick’s (1918) project method, to the arts-oriented educational initiatives emerging from Harvard University’s Project Zero, to notions of authentic assessment (Wiggins, 1993), to other student-driven curricula throughout the world, educators have attempted to chip away at the edifice of authoritarian schooling for many years, creating alternatives to placing students in passive, receptive, mimetic, and stationary roles. In spite of the possibilities they have demonstrated, these approaches have largely been either the province of specialized

schools or tangential practices existing on the periphery of mainstream schooling. Meanwhile, teacher-and-text-centered instruction—referred to by Hillocks (1986) as “presentational” and by Goodlad (1984) as “frontal” teaching—reiterates and reifies the dominant instructional practices of at least the last two (Cohen, 1989) or four (Cole, 2005) thousand years.



*Figure 1: Brooklyn, New York, USA elementary classroom, circa 1920
(from the author's family collection)*

Many commentators believe that such persistence is a consequence of teachers' lack of awareness of more progressive alternatives. If only they were exposed to better options, say the critics, they would embrace them. Dewey himself initially felt that teachers would willingly adopt his progressive methods if sufficiently schooled in new methods. Cohen (1989) observes that

Both *The School and Society* [1900], and *The Child and The Curriculum* [1902] . . . depict what he called the "old education" as the result of misguided ideas about learning and teaching. In these and other writings, Dewey seems to assume that once teachers understand what he sometimes called the "laws of psychology," they would be in a position to set things right. This impression is reinforced by the account offered in [Mayhew & Edwards, 1966]. The book reveals that Dewey and the teachers had no idea how difficult it would be to teach as he wished. Dewey confirms this in memoranda to the authors. (p. 79)

CHAPTER 4

Dewey's view of "old education" practices could be viewed as a recognition of either their ancient origins or their obsolete utility; but if they are obsolete, they have been so for well over a century now. I accept Dewey's ultimate recognition that the problem is not simply that teachers are unaware of alternatives to schooling as usual (cf. Hillocks's [2006] belief that teachers of writing have abundant knowledge available to them, but are not drawing on it). I hope to expand on this problem by arguing that the issue of the persistence of authoritarian patterns of teaching and learning is a function of the culture of schooling, a culture embedded in 4,000 years of stone and seemingly impervious to real, systemic change. In the remainder of this chapter I will use a Vygotskian framework to theorize why schools are so resistant to changes in literacy instruction and why those who accept the alternatives proposed by Dewey, Montessori, and others might temper their frustration over the persistence of authoritarian models of teaching given how the functional system as a whole reinforces traditional values across generations.

MY EXPERIENTIAL BACKGROUND IN EXAMINING CONSERVATIVE SCHOOLING PRACTICES

I will next outline what I see as the primary cycle through which schools become resistant to change. I do so based on my experiences in a range of schools. I grew up in Northern Virginia during the rapid expansion of suburban areas following World War II; Fairfax County, where I was raised through age 15, was the fastest-growing county in the nation in the 1950s and 1960s when I was a student there. After beginning first grade in a makeshift private school which my parents enrolled me in because my October birthday would have required me to wait a year to begin my public school education, I attended two different elementary schools (although overcrowding led to having my fourth-grade class moved to an empty high school classroom), then attended an all-boys Episcopalian school for seventh grade, and then a public junior high school for eighth grade. Even though I lived in the same house the whole time, I went to classes in 6 different schools in my first 8 years of education. I then attended two years of high school in Virginia and finished high school in Princeton, New Jersey, where my parents moved in 1968.

After graduating from Kenyon College with an English literature degree (Kenyon did not certify teachers, and I had no career plans of any kind as an undergraduate), I bounced around for a few years, including some work as a substitute teacher in New Jersey, working primarily in four districts and being sent to about 15 different schools, mostly junior high schools in the urban center of Trenton. I also spent a year as a hall monitor ("administrative aide" in their vernacular) in an urban school in the Trenton area. Ultimately I moved to Chicago where I began my M.A.T. at the University of Chicago, during which time I also taught in the Upward Bound/Pilot Enrichment Program for South Side middle school students. I then taught full-time in three Chicago-area high

schools over the next 13 years, taking a year off for doctoral studies and substitute teaching throughout Chicago—about 25 different schools in all—to help pay the bills.

Since 1990 I have taught teacher education courses in Oklahoma and Georgia. I supervised student teachers and first-year teachers, and conducted research in a few dozen schools in Oklahoma, and have spent significant time in several Georgia schools as part of my research and other school business. My own children have also attended a variety of schools in Oklahoma and Georgia, and as a parent I have spent time in each. All told, then, I've been in quite a few schools in five geographically distinct U. S. states, including many years as a full-time teacher and many hours as a researcher. Based on these experiences over the last half-century, I have come to understand schools as both different—primarily in the ways in which they are resourced and in which the children come from more and less advantaged homes and communities—and remarkably similar.

As a teacher educator I have come to recognize that the influence of the university program on our teacher candidates often quickly gives way to the values of school sites. The central tradition of U.S. schools is one designed to conserve educational practice as teacher-and-text-centered and thus authoritarian in nature. The emphasis is on the subject more than on the child, on knowledge as fixed rather than as on constructed, on the authority of the text over the constructions of the learner, on rote learning more than on discovery, on passivity rather than on activity, and on other practices that establish clear roles for teachers as knowledge dispensers and students as vessels to be filled with information. Cuban's (1993, 2007) dichotomy between teacher-centered and student-centered instruction overlooks much in between and outside the confines of these two extremes. Yet these poles provide what I see as the central tension faced by beginning teachers as they make the transition from their university programs to their first jobs. As is common among teachers at large, the teachers I have studied learn some version of a progressive pedagogy in universities that they find difficult to practice in the conservative setting of schools.

I next put my experiences in schools in dialogue with scholarship on school practices, including studies from my own research program, to outline why schools have changed so little across the decades, centuries, and millennia. This cycle contributes to and reinforces a conception of educational practice that, as Cohen (1989) and others have argued, makes it difficult for a progressive, learner-centered pedagogy to get an initial foothold and then establish a stronger position in the U.S. K-12 educational system. From the perspective of literacy education, the conservative values of schools mitigate against using literacy for personal development and social action and instead treat it as a medium by which students demonstrate their ability to relate their recollection of course material.

CHAPTER 4

VYGOTSKY AND SCHOOL LEARNING

Vygotsky, with his background and orientation as a teacher, saw school as the primary site for formal literacy instruction. In this chapter I am primarily concerned with the ways in which U. S. schools are a product of a cultural history that creates conditions conducive to the self-perpetuation of particular kinds of scientific concepts—those that involve abstraction for reapplication and modification in new types of settings (see Chapter 2)—regarding the purpose of public education. I thus do not attend here to how young people develop literacy practices outside school, even while recognizing the critical importance of such activity. My goal is to help unveil the dominant practices of schools and how issues of experience as students, self-selection of the teaching force, authoritarian traditions, insufficiency of time in settings with alternative values, and external mandates conspire to keep schools more or less as they are, in spite of what Portes and Smagorinsky (2010) have referred to as the problem of static educational structures and their interface with the changing demographics of school populations.

I approach this problem by going through the process through which people, particularly teachers, become acculturated to authoritarian schooling and questioning the degree to which even the most passionately progressive teacher education program can produce fundamental changes in teacher candidates' thinking as they transition from their generally authoritarian school and university experiences as students to their brief exposure to alternatives in teacher education courses. From this course work they immediately cycle back, often concurrent with their university preparation in progressive teaching, into the very settings that for so long socialized them to authoritarian conceptions of teaching and learning.

PRIMARY SCHOOL APPRENTICESHIP OF OBSERVATION

Lortie (1975) has referred to a person's experiences as a student as an *apprenticeship of observation*. His choice of terms is propitious, given that what most students do throughout their schooling is observe; or, if not observe, daydream while their teachers talk (Bloom, 1954; Csikszentmihalyi & Larson, 1984; Csikszentmihalyi, Rathunde, & Whalen, 1993). By all accounts students do not talk or do a great deal in classrooms. Rather, most students go through school experiencing rote instruction in which their role is largely subordinate and mimetic.

Just as socialization into gender roles may begin in the cradle (Rubin et al., 1974), students' socialization into authoritarian schooling may begin as soon as children toddle through their first classroom door. Although her story is no doubt particular to her situation in many ways, the insight of Penny, a research participant in a line of inquiry through which my colleagues and I (Grossman et al., 1999) have studied beginning teachers' transition from university teacher education programs to their first jobs, suggests how schools often serve to create deep impressions in children regarding how the institution functions (Smagorinsky, 1999).

Penny's teacher education program had a strong orientation to constructivist pedagogical practices, one that even shaped hiring practices such that new hires were expected to frame their teaching and scholarship in terms of Piaget's theory that postulates children as people who assemble their worlds based on available possibilities, with their manipulation of their environments following from the capabilities afforded by emerging biological stages of development. In contrast, the school in which she did her student teaching, located only a few blocks from campus, was run in an authoritarian fashion such that both children and teacher candidates were, as we characterized it in one study, expected to mimic a teacher's lead as would a dancer in a studio in which the footprints are indelibly inscribed in the floor (Smagorinsky, Cook, Jackson, Moore, & Fry (2004).

Following one observation, Penny discussed the difficulties she was having getting her first-grade students to think creatively and constructively about the open-ended tasks she would provide for them in this school. The school culture was well-described by the "head teacher," a fourth-grade teacher who served as acting principal when the full-time principal was out of the building. When asked what good language arts teaching involved, she said,

I would place most of my emphasis on I would say structure. Because structure is going to cover any kind of expository writing, where you have, if the child can write a good sentence, then they've got some of the basic skills of capitalization and punctuation, complete thought. And I feel like by the time they leave third grade a good language arts basis for a child would be to be able to write that solid paragraph, and that's going to include spelling. Because in our expository writing lessons, incorrect spelling cannot be read. [I would also emphasize] being able to read. And unfortunately, children can read what they write whether it's good paragraph formation or not. They don't have to have a vowel in it to be able to read their story. But to be able to have it correct, we've got to have all those other things in place. Spelling, and I also place a great emphasis on grammar, correct verb agreement, because each morning they'll come into [class and be shown] two incorrect sentences that they have to correct. And that also carries over into their writing. . . . You cannot complete [a job] application without language arts. Improper grammar, that's going to turn me off in a minute with a teacher. I'll X her out or him out immediately for poor grammar. It may be right or wrong, but I feel like whatever they're modeling, those children are going to model. After all, they got it from their parents. So I would say in order to be a productive citizen you're going to have to have language arts skills. . . . The old-fashioned diagramming of sentences would sure help most of our language arts [teachers]. You know, the university would very much help because often [teacher candidates] do not know basic language arts, basic grammar skills, basic punctuation. They haven't had it for years. So how can they teach it if they don't understand it? . . . You still have to have that basic,

CHAPTER 4

you still have to have that grammar. I don't care if it's reading or writing because all of your workbooks that go with your basals in reading, those aren't just comprehension skills. Those are language skills. They still have to know those.

This formal emphasis was evident in many ways in which the students were taught to conduct themselves throughout the building, which emphasized quiet compliance to rules along with adherence to textual forms. An interview with Penny's mentor teacher Rona was quite revealing in this regard. When I asked her about the school as a whole, she said,

This is a very traditional school. So the district, the [state-mandated learning outcomes], and then the school, I know what's expected here [from] principal and colleagues. . . . I knew when I walked in here and started teaching that there were very high expectations here, as far as achievement tests.

What was particularly striking about this excerpt from our interview was the way Rona dropped her voice dramatically when talking about the school's emphasis on basal readers and then again when she said, "This is a very traditional school." At the time of the interview, we were sitting in the corner of the school's cavernous cafeteria; the only other person in the room was a cafeteria worker at the opposite end of the room, well out of earshot. Yet, presumably because Rona did not want to be overheard talking about the school's traditional orientation and its curricular vehicles for achieving its goals, she spoke in hushed tones even under relatively secure conditions. I was strongly impressed by the ways in which the school provided pressures to teach, and think, and ultimately self-monitor in traditional ways through proleptic means toward an authoritarian motive.

Penny realized that her students had already been profoundly conditioned to regard school as a place where their role was to follow instructions rather than frame and solve problems related to their own views of the world. Following a November observation during which she had students write story books about pumpkins they had drawn—an open-ended activity that departed from the school's more buttoned-down priorities and attendant emphasis on grammar and other aspects of form—she came to the following insight during our interview, after I'd asked about her students' ability to act in accordance with the rigid expectations of the school:

They're really good at that. It's unpacing them and unstructuring them is what's hard. . . . Most of them have been Kindergarten, Transition at [the school], so this is in actuality, for students this is their third year there. So I mean, you've got all this structure going on for three years, which is, gee, half their lives. So to then say what's unstructured, they're kinda like, "What?"

“Transition” referred to the school district’s policy of allowing students to delay entry into first grade by attending a year of school between preschool and first grade. The fact that many students had been enrolled in a Transition year and thus had already been socialized for half of their lives into the traditional structure of the school made it difficult for Penny to operate with a different pace and with more open-ended activities that allowed for greater exploration of ideas and personal construction of knowledge.

If Penny’s experiences are even remotely representative of how schools are conducted in general, even in first grade many students have already become so acculturated to authoritarian schooling—following instructions, moving within narrow channels, remaining seated and silent, attending to form over meaning—that “unpacing them and unstructuring them” becomes difficult. The students described by Penny were in school before George W. Bush mandated the No Child Left Behind Act (NCLB), which superimposed a standardized testing system that institutionalized a uniform set of expectations on all students and consequently on all teachers at the primary school level. Administered top-down and establishing orthodox conceptions of literacy learning, NCLB and its progeniture under Barack Obama’s Education Secretary Arne Duncan, *Race to the Top*, further limit the channels through which students may navigate school because they suggest that there are specifically right and wrong ways in which to answer questions, and few if any opportunities to *ask* questions—as few as *one per month* by typical students in some studies (Gall & Rhody, 1987), and those largely procedural, rather than representing inquiries into their learning.

As schema theorists might say, the deep processing of students’ conception of schooling is established early and thus powerfully (Craik & Lockhart, 1972). And if Cole (1996) is right in saying that from a cultural-historical perspective, schemata are cultural in nature—that is, learned as part of engagement with the activities of a particular community of practice, in this case school—students learn early in life to expect and act within an authoritarian system in each subsequent experience with school, especially as the schemata become reinforced with continual experiences of the same type. Under the pressure to produce test scores, teachers are monitored for the ways in which they teach, often through scripted packages produced as part of the testing apparatus, and punished (along with the school administrators) with the threat of termination should their students’ scores fall below a given level. Given that administrators are often given hefty pay bonuses for gains in test scores, the pressures to produce them by teachers are great; and given the difficulty of raising scores dramatically, many of the largest school districts in the U. S. have recently been plagued by cheating scandals.

As I review in detail in Chapter 5, the assumptions behind these tests are highly questionable. Yet they serve the motive of instructional uniformity leading toward the teleological end of a literate society, at least as indicated by scores on standardized tests. Given, however, the likelihood that these tests do not provide the problem isomorphs presumed by their designers (see Newman, Griffin, & Cole, 1989;

CHAPTER 4

Chapter 3 of this volume), in fact they provide little useful information about children other than the degree to which they are consonant with the means of measurement.

SECONDARY SCHOOL APPRENTICESHIP OF OBSERVATION

If first grade has already involved considerable socialization to the cultural norms of authoritarian schooling, and if such instruction is characteristic of elementary school education as emphasized by Penny's school's head teacher, then by the time students reach middle school they have spent the bulk of their lives in rote education. There is little evidence to suggest that schools become more flexible as students take on the second half of their compulsory education. Many accounts of secondary school characterize it as, to use Goodlad's (1984) term, a "flat" experience (p. 108): one that involves little activity or affect and little engagement with the tasks of memorization that typify it, at least in relation to the academic curriculum. As Finders (1997) and others have noted, schools are meanwhile alive with social positioning and engagement, including abundant literacy behaviors through which social hierarchies are sustained. Classrooms rarely allow for what Csikszentmihalyi and Larson (1984) call the "flow" of learning: situations that provide for roughly equal levels of challenge and ability and leave students so thoroughly engaged in the process of participating that they lose track of time altogether.

I have only occasionally observed such engagement in schools. Of course, I hope that my own high school English classes provided such occasions for at least some students, and believe that they happened during either our very best discussions—those in which students walked out the classroom door after class still arguing about the topic—or when I allowed students to interpret texts through engaging means such as dramatizing texts or interpreting them through art or other constructivist reading, writing, and interpretive acts (see Smagorinsky, 1991a for work based on such teaching). Without systematic documentation of their engagement with what I designed, however, you'll have to take my word on that.

During my years as an observer of other teachers' classes, I have primarily seen occasions allowing for flow experiences in classes that are typically considered to be on the margins of the school's academic core. To give one striking example: I observed a home economics class where students were making clothing that they intended to wear. The product of their work was thus of great value to them. The teacher's approach was to provide some instruction on particular techniques and then let the students talk and work their way through their construction of their garments. The meaningfulness of the task to the students was evident in their readiness to revise their work by tearing our seams and re-doing sections of the clothing, a volitional undertaking that many English teachers can only hope that students engage in with their reading and writing. The evidence for their involvement in a flow experience came when, with five minutes left in the period, the

teacher told them they had to stop working and begin to clean up. Students reacted not only with surprise, but also with a bit of anger that they had to stop working because the school schedule required that they move along to another class, no doubt one that didn't fly by quite so fast.

Back in the core subject areas, even when teachers depart from lectures and lead discussions, classrooms often remain hierarchical. English teachers, for instance tend to lead "discussions" in which they steer students toward conventional interpretations of literature, in spite of claims to be seeking open-ended exchanges that are akin to musical "jam sessions." As described by Marshall et al. (1995; cf. Nystrand, 1997 for similar effects with a larger sample), teachers ran their discussions "to 'get somewhere,' especially to a shared and conventional interpretation." Further,

Instead of the student-centered discussions that the teachers envisioned, teachers controlled the flow of the discussions. On average, their turns in discussions were two to five times longer than those of the students. The nature of their questions determined the nature of students' remarks. In addition, the teachers tended to provide the context in which students' remarks became meaningful. Teachers would typically weave the brief informative statements of students into a coherent discourse. Students' turns were intelligible only because of the context that teachers provided for them. (p. 129)

Marshall et al. (1995) found that teachers who claim to want free-flowing jam sessions, yet steer students toward conventional interpretations established by literary critics, exhibit *doubleness*; that is, they entertain multiple and conflicting goals simultaneously with respect to the same pedagogical problem. In other work, my colleagues and I (Bickmore, Smagorinsky, & O'Donnell-Allen, 2005) have found a similar pattern that we described as *teaching within tensions between traditions*. Rather than locating the problem of doubleness in the teacher, we have located it in the *setting* of learning to teach. In particular, many teachers seem caught within the Enlightenment value on rationalism and the Romantic emphasis on expression, which correlate with the binaries of product (Enlightenment) vs. process (Romanticism), sign vs. tool, final draft vs. exploratory speech, and other opposing emphases on the product of rational thinking vs. the process of articulating ideas into being (see Chapter 7).

These traditions are realized in what Bakhtin (1986; cf. Wertsch, 1991) refers to as *speech genres*, i.e., the sets of conventions that govern speech in particular communities of practice. The primary speech genre of formal education is more Enlightenment than Romanticism, as argued by Barnes (1992) in his distinction between *final draft* and *exploratory* speech. Rather than talking their way into ideas, students are expected to have fully-formed ideas ready to enter into classroom exchanges. Teachers, however, are the only ones likely to have fully-formed ideas on topics that are well-schooled and well-rehearsed in their own conceptions,

CHAPTER 4

yet new, challenging, and formidable to students. Teachers thus end up carrying the interpretive load while students provide bits of information when the teacher solicits it. These student contributions tend to be brief and to serve the purpose of slotting in literal information that advances the interpretive text woven by the teacher (Marshall et al., 1995). Alternatives that invite exploratory speech, such as small group discussions held outside the influence and direction of the teacher, comprise a minor classroom arrangement in the overall conduct of school.

Given that literary discussion is among the most interpretive aspects of a school curriculum, it is likely that in other disciplines, the students' role is even less agentic than in the marginally active manner found by Marshall et al. (1995). Even in English class literature discussions, classroom episodes as brief as a few minutes are celebrated as signifying hope for more dialogic possibilities in literary discussions (Christoph & Nystrand, 2001). The norm, in contrast, is for teachers to dominate through lecture or teacher-centered discussions. This pattern has been well-documented as the "I-R-E" pattern (Mehan, 1979), in which the teacher initiates a topic with a statement or question, a student provides a brief response, and the teacher in turn evaluates the student's comment or elaborates on it, leaving students primarily in the role of filling bits of knowledge into pauses in the teacher's monologue. Students rarely pose questions, and the questions asked by teachers most commonly have predetermined correct answers, rather than being open-ended, idiosyncratic, stimulating, or engaging—what Nystrand (1997) calls *authentic* questions. Wells (1999) finds that other patterns are available, such as what he refers to as Initiation-Response-Feedback (I-R-F), that are more collaborative. More studies than not, however, conclude that students' roles in classrooms are largely subservient to the authoritarian tradition.

Applebee's (1993) finding that literary response is restricted to what is testable suggests further means of confining classroom instruction to reinforcing the established views of literary critics. Given that the testing emphasis has extended to high schools, it seems reasonable to conclude that, in many school districts throughout the U.S., what students learn from their apprenticeships of observation is that literature has correct interpretations and that it is the teacher's job to convey them and the students' job to repeat them on assessments, rather than to do interpretive work of their own.

One school that my colleagues and I studied illustrates the problem of a centralized and uniform conception of literary meaning (Smagorinsky, Lakly², & Johnson, 2002). The county instituted a curriculum designed to address the lack of consistency of what was taught among its many and varied secondary schools. Under the assumption that the county's lowest performing schools' poor test scores were caused in part by instruction geared toward lower expectations, the district attempted to create a more unified and democratic system of instruction in the form of what it called a "tightly-held" curriculum designed by county teachers.

This curriculum specified the instructional and assessment materials that all teachers should use, and in what order, for each course in the program. The district

issued each teacher a two-inch thick 3-ring binder that scripted the teaching for each language arts course offered in grades 9-12. The design assumed that when teaching with the prescribed commercial anthology, all teachers in all schools throughout the large and diverse district would read the same literature on the same day, ask the same questions, use the same assessments, and otherwise provide each student in the district the same instruction as they prepared for the standardized district assessment. This uniformity meant that all students, whether living in an affluent suburb, in the inner city, or on a farm on the fringe of the county would receive the same instruction at the same time for all four years of high school. This approach assumed that this curriculum involved the sort of problem isomorphs questioned by Newman et al. (1989) in the standardization of teaching and assessment.

The curriculum was further tied to county-wide tests that assessed students after each unit, further pressuring teachers to follow the curriculum guide faithfully. In addition to standardizing assessment, and thus instruction across the various schools within the district, these tests mirrored the format for the SAT and thus served as preparation for tests that were a source of pride among district administrators, parents, real estate agents, and other stakeholders in the community. To assess students' competencies, the state administered the Georgia Kindergarten Assessment Program, Criterion-Referenced Competency Tests, the Georgia Alternate Assessment, the Georgia Basic Skills Test, a writing assessment at three grade levels, Georgia High School Graduation Tests in core subjects, the Georgia High School Writing Test, and the Stanford Achievement test series. Hardly anomalous, the district's approach mirrors the Bush administration's proposals for reforming U.S. education (see, e.g., <http://usinfo.state.gov/usa/edu/>), an approach taken up with gusto by Obama's Department of Education. Indeed, this district's approach is decidedly temperate compared to that of the Charlotte-Mecklenburg (NC) Public Schools, which spent nearly \$2 million field-testing 52 different standardized tests on its students in the spring of 2011 (Strauss, 2011). I have always been intrigued by the manner in which these assessments are referred to as a *battery of tests*, without apparent irony.

As a consequence of this superstructure, teachers found themselves restricted in how they could approach literature instruction. Following one observation, focal teacher and coauthor Andrea Lakly said that she had chosen the poem the class had discussed "because it's the poem that they ask the county questions about on the test . . . and I wanted our discussion of it to be fresh in their minds as they sat down to take the test. So I left it to the day before the test." Teaching the poem at this juncture seemed at first to be a mild accommodation to the curriculum. Andrea explained, however, that her role in the discussion was more directive than how she would teach without the tightly-held curriculum's constraints:

Sometimes it can get sort of bad because the county questions will ask a question and will give an answer that I don't necessarily agree with. But in

CHAPTER 4

the course of the instruction I will attempt to purposely convince them all to believe that this would be the answer to this kind of question. . . . There was a question on—it was a poem also last time. It was, "Ithaca" was the title of it. It was actually part of our "Odyssey" unit and the poem talked about Odysseus's journey and one of the questions asked what values—or what themes does this poem emphasize. And the answer that they wanted you to choose from the multiple choice questions was Odysseus's—or the importance of home and family. And—but in the process of reading the poem, the poem really talked a lot more about the value of the journey. And so I thought—oh, I really hated that that was the answer to that question. But in the course of the discussion I attempted to convince the students that were they ever asked that, they should answer that it was the importance of home and family. . . . Pretty pathetic, I know. Sorry. What else am I supposed to do?

Mandates regarding the teaching of writing further complicate teaching; or, rather, they simplify it to the point of becoming problematic and, as Andrea might say, pathetic. Hillocks's (2002) study of state writing assessments found that for several states, a five-paragraph theme served as the template for state writing tests. Rubrics requiring five paragraphs—introduction, three body paragraphs, and conclusion—were required regardless of genre, *so that even narratives had to follow this structure*, an idea that violates the conventions of narrative form outside the boundaries of assessments of this sort.

Such tests restrict teaching to preparation in this format, one that has received ample criticism for its reductive approach to writing instruction. As Hillocks' (2002) notes, the state writing exams are so insensitive to content that merely the presence in a body paragraph of a claim and an example is sufficient for a high score, no matter how poorly the example illustrates the claim or how specious the claim itself is. The pressures of these tests affect faculty in key ways. In a study my colleagues and I did on a teacher's emphasis on five-paragraph themes to prepare her students for the Oklahoma eighth-grade writing test (Johnson, Smagorinsky, Thompson, & Fry, 2003), focal teacher and coauthor Leigh Thompson revealed the kind of guidance provided by her colleagues when discussing her instruction in the five-paragraph theme:

When they [the students] take the eighth grade writing test, that's what they [the assessors] look for is the five-paragraph essay format. And that's something that I've talked a lot to the other two eighth-grade English teachers about, and so they've helped me on that. But they just said, "Give them lots of practice. Have them practice writing this essay as much as possible" . . . because that's kind of the structure they look for when people grade these writing samples that they have to give.

Leigh's conformity to this instructional norm undoubtedly helped relieve the tension of being a first-year teacher entering an environment with established expectations.

However, the motive of this new setting, which included the pressures produced by expectations accompanying the state writing test, also contributed to her experience of new proleptic tensions. Two recurring terms in Leigh's accounts of teaching the five-paragraph theme in preparation for this test were *pressure* exerted on her from without and *stress*, a psychological state she perceived in her colleagues and experienced herself. She was aware of this pressure and experienced this stress very early in her first year at the school. In an interview conducted in late September, she said that her students needed

to learn to write because eighth grade takes that writing test in the spring and that's a big thing with this writing test which all the teachers stress about. . . . I want them to focus on being able to write an essay. You know, giving me a thesis statement and backing up your thesis statement, and just your basic old boring essay. . . . I think more and more I'm focusing on structure so that they can write that.

By January, only weeks before the test took place, the pressure intensified, and Leigh was feeling the stress to prepare her students:

I don't feel like I can spend any other time on any other type of writing right now. I have all these other things I want to do as far as writing, but up until they take this test, I don't feel like I can do anything else. . . . I'm just trying to get them ready for this test. And I've told them a hundred times that's my goal and we need to work on this.

The pressure to teach to the test confined Leigh's instruction to the five-paragraph theme, a priority that she made her students well aware of. She deferred any other more imaginative writing instruction till after the state writing test:

I feel like I can't do as many fun activities and different activities. And maybe once I've, like I've said before, maybe once I have some more teaching experience and know what to expect with this writing test a little more and know what works and what doesn't as far as helping them write, then I can vary a little bit. But I think definitely because just like I said, I'm going to let them do some more creative projects in writing after this writing assessment test is over. Right now I feel like I'm just pounding it into them. It kind of stresses me out. This whole writing test stuff.

Leigh revealed that the stress she experienced came through her interactions with her colleagues. She said, for instance, that "I've never heard like if they do awful, that you're going to be fired or anything like that, but I've heard it reflects on you. . . . One teacher commented to me, she said, 'Well, you're lucky you have honors kids because your tests will be higher than mine.'" In contrast to her supervising principal's assurance that her students would pass the test even if she did not dedicate her writing instruction to the five-paragraph theme, and this principal's

CHAPTER 4

encouragement of open-ended thinking and teaching, Leigh's colleagues impressed upon her the precipitous nature of the test scores in terms of their reputations as teachers and the importance therefore of teaching to the test.

Undoubtedly there are many exceptions to schooling as usual, as outlined and advocated by educators over the years (see, e.g., the contributors to Christenbury et al., 2009). Yet the instruction documented in such studies is, by all accounts, among the minor traditions that Applebee (1974) has found in the history of English as a discipline. What makes it exceptional is the relative absence of such teaching in the bulk of U.S. classrooms.

UNIVERSITY APPRENTICESHIP OF OBSERVATION

With authoritarian teaching methods comprising the bulk of their experiences as middle and high school students, prospective teachers enter college. If they attend a large state university of the sort that provides the profession with the majority of K-12 teachers, they spend their first few years taking classes in large lecture halls where their role is to listen and take notes, and then take multiple choice exams to test their mastery of the material, or at least their ability to recall it. In the domain of English, upper level English courses are typically dedicated to professors' emphasizing their own approach to literary criticism (Addington, 2001; Marshall & Smith, 1997). The student's role is to adopt a specific critical perspective for approaching literary texts by attending carefully to the professor's lectures and the wisdom of professional critics and approximating them on papers and exams.

Indeed, in U.S. universities most classes are known as a *lecture* and the instructor's role is to *profess*, hardly terms that suggest high levels of student activity or professional attention to learning processes. Even though my university's motto is "to teach, to serve, and to inquire into the nature of things," in many disciplines this inquiry into the nature of things is conducted by the faculty, whose classes are dedicated to explaining the results of their inquiries to students who, depending on the discipline, either take additional tests or, on occasion, write their own versions of the professor's ideas. What students learn about teaching in universities thus reinforces what they have learned about teaching in their K-12 education.

Andrea Lakly articulated the expectations of university English course work well, saying during an interview,

I feel that when you come to college you have accepted a certain path of education, saying you are more willing now to be a receptacle and more independent. When I showed up to [English] classes, I got and expected lectures. I showed up to hear those professors' opinions of what was happening, and I would still feel that way in a college class. I wouldn't object to taking a class that somebody told me they were going to teach in a new way, but I don't feel resentment toward anyone that they are going to teach it in a lecture format. . . . The student at that point chooses to study a subject that they are better able to study, and

therefore they can deal with the fact that it is not presented to them in an easy, or not an easier format, but isn't tailored to striving to help them understand it. By the time they have reached college education, they are in charge of making sure that they are understanding what is happening.

Andrea's comments reflect the findings of Addington (2001) and Marshall and Smith (1997), who conclude that learning processes and idiosyncratic readings (and thus writing that departs from authoritative criticism) receive little emphasis in the Departments of English of large state universities. Rather, the role of students is to attend to a set of masters—literary authors, literary critics, and literature professors—whose views and models they are expected to adopt in order to achieve disciplinary competence. English education majors—those who become secondary school English teachers—thus tend to go through their formal education, right up to their first introduction to alternatives in teacher education courses, exposed primarily to authoritarian instruction. The effects of such models are difficult to undo *even in the first grade*. By the time students enter their 15th or 16th year of education, these habits are very well engrained to the point that other alternatives are difficult to imagine as being the province of schools and classrooms.

Wertsch (1991) illustrates this kind of problem by describing the history of the typewriter keyboard, known as the QWERTY keyboard because of the position of the first keys on the top row of letters. Most people assume that the layout of keys is designed to make typing easier. Those who have grown up using computer keyboards rather than typewriters probably couldn't imagine any other reason for arranging keys. Actually, however, the opposite is true: The QWERTY layout is designed to *slow down* a fast typist. When typewriters were first invented, they were not electrified. The imprint of a letter on the page came about when a typist struck a key, which was attached to a wire with a corresponding letter on the other end. This letter was propelled forward to strike a thin ribbon containing ink, which in turn struck the paper and printed the letter on it. If a typist went too fast, the wires would get all tangled up. And so to slow fast typists down, the keyboard was arranged to make typing somewhat clumsy and therefore slower and less likely to jam up the typewriter.

In spite of many advances in technology, the QWERTY keyboard has endured, even though most word processing programs have options that enable the user to switch to a more efficient arrangement. Typists unaware of the history of keyboards can't imagine it any other way and even assume that the structure is designed to make things work better. Wertsch (1991) argues that conventions of schooling can act in similar ways: There are ways of doing things that are part of school, and if they are done differently it just doesn't seem like school any more. Alternatives seem to lack legitimacy because they're different from what people know and are comfortable with. Stakeholders of all sorts assume that the traditional ways of schooling are the best and most effi-

CHAPTER 4

cient ways to educate students, because that's how they have always known them to be.

TEACHER EDUCATION PROGRAMS

Ultimately, those who take a traditional path to a teaching career enroll in education coursework. While such programs vary greatly from university to university, most often they involve taking courses in such areas as educational foundations, technology, adolescent development, and exceptional learners. Once admitted to a specific major, teacher candidates receive instruction in a teaching methods class and perhaps related classes in pedagogy. Many of these courses, both the general and discipline-specific, are accompanied by practica that place the teacher candidates back in the same sorts of schools that provided their apprenticeships of observation. With formal instruction in educational theory, research, and practice behind them, teacher candidates finally embark on their student teaching.

English teachers, who tend to be responsible for literacy instruction, take 8-15 courses in departments of English during their college education, typically before they begin their education emphasis. These classes, as noted, often revolve around their professors' content area interests rather than emphasizing how to teach the discipline aside from what is modeled: in many cases, a lecture-oriented presentation of canonical interpretations of high-level literature that may be considered too challenging for inclusion in the secondary English curriculum. The influence of this professorial instruction, based on sheer volume of coursework, is likely to overwhelm that of the relatively few education classes in impressing a conception of instruction on teacher candidates. Teacher education coursework has thus been described by some as a "band-aid" at the end of the program, a flimsy measure that is expected to erase the prior 15 years of exposure to authoritarian teaching and replace that conception wholesale with a progressive vision of education (see Wideen, Mayer-Smith, & Moon, 1998).

Even the practica and student teaching, believed by many to be the cornerstone of effective teacher education, can serve to reproduce rather than challenge school norms. Consider, for example, a fourth-grade classroom I studied taught by Sharon, a university classmate of Penny's (see Smagorinsky, Cook, Jackson, Moore, & Fry, 2004) whose mentor teacher was the "head teacher" quoted earlier in this chapter. In the classroom that hosted her student teaching, not only were the students allowed little latitude in their learning, the teacher herself felt so confined that she declared at one point:

I don't know if I am going to be able to [use a constructivist pedagogy learned at the university] within this classroom. I don't know how much leeway [my mentor teacher] is going to give me. And I know not to step on her toes. She will definitely bop me back in line. That is pretty evident. She

doesn't—I mean, she thinks that I should be there to learn from her and not to in any way take over her classroom.

Getting bopped back in line can occur in many ways and can discourage both student teachers and beginning teachers from violating the established practices of the schools in which they teach. Sharon articulated this apprehension well when she stated in an interview, “What I am concerned about is, I think, that throughout this semester, being with my [mentor] teacher as opposed to being at [the university], I just hope that I don't totally switch to her side.” Sharon here refers to her own precarious position as a student teacher, rather than to her students' experiences in her mentor teacher's classroom.

Yet it was clear from the research that her students were also concerned about getting bopped back in line should they step outside the lines that circumscribed their social or academic behavior in this classroom. Sharon's fear that she might “totally switch to her side” reflects a common experience for beginning teachers: that the pressure to abandon the university's priorities is great and that the socialization of new teachers to the school's norms remains a primary focus of the mentoring of student teachers and beginning teachers. After all, the school site is the setting of greatest evaluative performance: Do well according to the school's standards, and it might offer a job, or at least a supportive evaluation, at the end of the experience; and once on the job, retention becomes available to those judged competent according to the school's definition of quality teaching, not the university's.

Back on campus, teacher education programs do not operate in a vacuum. Most must respond to some external auditor's beliefs about quality education. The National Council for Accreditation of Teacher Education (NCATE) is able to grant and deny their accreditation to programs based on reports and site visits designed to determine the program's proximity to their standards. NCATE president James G. Cibulka recently outlined his accreditation agency's newest priority for teacher education: “In the past, accreditation wrapped clinical experience around coursework. The new approach will reverse the priority, encouraging institutions to place teacher candidates in more robust clinical experiences, and wrap coursework around clinical practice” (2009, p. 2).

NCATE will now evaluate colleges of education according to its “*robust clinical preparation, including educator preparation in school settings*,” such as that of The Tennessee Board of Regents Teacher Education Redesign, which “eliminates traditional university classroom seat time for teacher candidates, streamlining these experiences into participatory, student directed learning in authentic school settings” (Cibulka, 2009, p. 4; emphasis in original). The idea that doing so will involve “participatory, student directed learning” appears chimerical rather than based on empirical evidence of how school is actually conducted.

In other words, the most influential accreditation agency for U. S. colleges of education seeks to reduce campus influence yet more and place socialization more firmly in the hands of schools, basing their decision on a fanciful notion of how

CHAPTER 4

schools expect students to participate in their education. The likelihood of systemic change in education will then surely be reduced to almost nothing in that teacher education will largely become the province of the schools whose cycles are firmly established to replicate ancient, conservative practices. Superstructures such as that provided by NCATE appear designed to disable constructive tool use. They appear to be headed toward even greater mediation of beginning teachers' understanding of effective practice toward the values of schools as traditionally conducted. Such immersion will undoubtedly shield them from the alternatives to which they might be exposed in what they dismiss as university "seat time."

The assumption that schools provide the best, and to NCATE the only, sources of knowledge about teaching defies much analysis of schooling that compares it to the assembly-line production of compliant and uniform student products. Shutting other influences out of the cycle virtually insures that schools will serve as self-perpetuating sites impervious to change and subject only to "reforms" such as testing mandates that primarily serve to reinforce existing, ancient practices of authoritarian teaching and the emphasis of form over content. If Obama's current emphasis on innovation for competitive advantage provides the motive for education, as he has declared (Obama, 2011), then the apparatus of intensive standardization proposed by his education secretary Arne Duncan is sure to stifle alternatives into oblivion.

BACK TO THE FUTURE: RETURNING TO THE CULTURE OF SCHOOLS

With such preparation, teachers then return to the schools to begin their careers. As Lortie (1975) observes, those who decide to become teachers often choose the profession because they had very high comfort levels with authoritarian instruction while students, and return to schools for their careers because they wish to become part of authoritarian institutions. Faculties, then, tend to reproduce themselves by hiring people who will perpetuate their values; and the pool from which they draw their candidates is filled with people who are inclined to oblige. As a result, beginning teachers find themselves surrounded by colleagues who adhere to the same practices that they experienced as students, and who typically do so of their own volition. In many cases they prefer hierarchical instruction to progressive pedagogies and so are good fits with schools (Feiman-Nemser & Buchmann, 1985); and even when they would prefer taking a progressive or constructivist approach to instruction, they run the risk of getting bopped back in line by their senior colleagues and administrators.

The reliance on authoritarian, fact-oriented instruction is further reinforced by external factors, particularly testing mandates. Assessment practices are instituted at a variety of levels, virtually all of which emphasize content coverage and, if writing is evaluated, form-oriented writing expectations. As noted with NCLB, such assessments are not attentive to process-oriented learning or constructive thinking. And so district-wide tests stress the memorization of information from the curriculum and suggest that teaching should focus on emphasizing the facts that will appear on these assessments (see, e.g., Smagorinsky, Gibson, Moore, Bickmore, & Cook, 2004; Sma-

gorinsky et al., 2002). State writing tests typically require fitting ideas into rigid forms such as the five-paragraph theme or other highly structured format around which clear rubrics may be developed. Such assessments suggest that teachers should emphasize the production of the form rather than the generation of ideas, an approach compatible with the generally authoritarian values of schools (see Smagorinsky, Cook, & Johnson, 2003). And as Applebee and Langer (2011) have argued, states that do not test writing, even in such dubious ways, implicitly tell teachers that writing is not worth teaching.

The institutions of school and teacher education programs thus invoke different, and opposing, traditions for their conceptions of quality instruction. Caught in the midst of this tension are beginning teachers, who must please education faculty for high grades yet also sufficiently impress the school administrators who are tasked with hiring faculty and deciding whom to retain. These tensions can make life miserable for beginning teachers who are also trying to cope with many other life adjustments involved in transitioning from the womb of the university to the responsibilities of adult life: moving to a new community, establishing a residence, maintaining friendships, and so on (see McCann, Johannessen, & Ricca, 2005). They further must often seethe, as did Andrea Lakly, through the process of accommodating their teaching to assessments whose correct answers they believe are wrong or superficial. The result for the workforce is a profession more likely to be filled by those who embrace authoritarian traditions than those who seek alternatives.

THE SELF-PERPETUATING CYCLE OF CONSERVATIVE SCHOOLING

It should perhaps not be too surprising that teachers are conflicted as they are caught among competing traditions, and be surprised only that they do actually experience some degree of tension. Their experience of tension serves as a small consolation to those who view authoritarian instruction as problematic. Perhaps the mere experience of tension is sufficient to gratify teacher educators, given the preponderance of exposure that beginning teachers have over the course of their education to the teacher- and text-centered tradition that focuses on the mastery of what Dixon (1975) called the cultural heritage perspective against which College of Education faculty often position themselves. Beginning teachers return to schools perhaps predisposed to embrace conventional schooling practices and are surrounded by faculty and administrators who, like themselves, felt comfortable enough in the climate of schools that they made a conscious decision to dedicate their professional lives to teaching in such a setting. One of my preservice teachers reported that upon returning from a job interview, after he had described some innovative teaching ideas he had developed at the university, the principal had said, "I know they teach you that stuff up there. *But y'all are down here now.*" The wonder, then, is not that coursework in education has such little lasting impact, but that it has any impact at all.

From a Vygotskian perspective, schools are resistant to change for many reasons that collude to reproduce values and processes that are as old as formal education it-

CHAPTER 4

self. Rather than pointing to single causes for the “wash out” effect that occurs when educators abandon their education professors’ imperatives and gravitate to school norms (Zeichner & Tabachnik, 1981), educators who hope to contribute to change would benefit from recognizing the panoply of factors that not only have immediate effects but that work across generations of educators to preserve and perpetuate authoritarian schooling. Developing a conception of teaching has been found to follow a twisting path (Smagorinsky et al., 2003) as teachers find themselves working within competing traditions and answering to different values in the assessment of their work. Ultimately, the edifice of schooling has remained largely intact in spite of critics’ efforts to question its essential processes. The path of concept development that teachers follow is inevitably formed in part by the contours provided by conventional schooling. Recognizing the power of such deeply-rooted culture and its adherents’ strength in resisting efforts to change it may help teacher educators understand the depths of the challenge they face in attempting to have a lasting impact on the practice of education.

From the standpoint of literacy education and research, schools thus provide problematic and often frustrating sites for those who seek to understand the development of literacy practices that youth find useful for personal or professional development. It is no wonder that sites outside school have become the settings for literacy research and practice that produce the sort of energy and innovation that Obama (2011) believes are available through public education. These sites, along with schools in which alternatives to authoritarian education are available, will be featured in the following chapters that characterize the roles of reading, writing, and multimodal expression in the literacy practice as it mediates human development toward teleological ends.

NOTES

¹ A photo of this classroom, along with other classrooms of similar organization, is available at <http://www.infodiv.unimelb.edu.au/tss/archive/history.html>; and a pdf version of Cole’s article is posted at <http://lchc.ucsd.edu/People/MCole/humdev.pdf>, where the photo is reproduced on p. 200.

² In several studies I have done of early-career teachers, I have included the teacher as coauthor of the research, and so refer to them by their real names, rather than by pseudonyms.

PART 2:

**THE FRAMEWORK FOR LITERACY
RESEARCH**

CHAPTER 5

THE BACKGROUND FOR CURRENT LITERACY STUDIES

In order to set the stage for articulating a Vygotskian approach to literacy research, my first task is to define the term “literacy,” something that is harder to do now than it ever has been. The *Merriam-Webster’s 11th Collegiate Dictionary* (2003) defines *literacy* rather circularly as the “quality or state of being literate,” tracing the origins of the term to 1883. *Literate* in turn comes from the 15th Century and evolved from “Middle English *literate*, from Latin *litteratus* marked with letters, *literate*, from *litterae*, letters, literature.” From its verbal origins, *literate* then evolved to describe people who are “able to read and write.” Literacy’s origins are clearly in the realm of letters, in spite of the current tendency to view it in relation to any set of symbols or competencies.

A century ago, people were considered literate if they could indicate their signature with an “X” (Reay, 1991). In the 21st century, literacy has accumulated so many meanings that virtually any act of what Hymes (1974) called *communicative competence* is considered a form of literacy. People now talk about computer literacy, media literacy, workplace literacy, emotional literacy, multiliteracies, and other abilities that have produced a host of new terms: computacy, mediacy, and others. I next review how *literacy* has been employed by researchers in the last century or so, beginning with reading and writing and then moving to more recent (yet actually quite ancient) conceptions that expand the notion to a broader sense of what Wertsch (1991) calls a *cultural tool kit* of representation, expression, and communication.

READING

In spite of the ubiquity of “verbal” measurements on standardized tests, it remains unclear how to determine how well someone can “read.” President Bill Clinton helped to accelerate the current emphasis on testing when he said during his 1997 State of the Union Address that “We must do more . . . to make sure every child can read well by the end of the third grade,” a belief that framed the Reading Excellence Act (<http://www.ed.gov/inits/FY99/1-read.html>) established during his presidency. Among other things, this federal act promised to “provide professional development for teachers based on the best research and practice.”

Yet reading specialists have profound differences on what constitutes the “best research and practice,” leading to the highly contentious and divisive Reading

Wars (see Allington & Woodside-Jiron, 1999) over both federal funding and the stature and wealth in book sales and consulting fees that follow from a federal endorsement. While some argue that reading competency can be measured through the administration of tests (Connor et al., 2009), others believe that not only do these tests provide questionable means of determining children's reading competency, they are likely to drive talented teachers from the profession because they reduce teaching to test preparation (Smagorinsky, 2009b). Given that researchers cannot agree on which evidence suggests that a person can read, which research and measurement approaches most usefully identify this ability, and which instruction is most likely to produce it, even the most conservative definition of literacy—the one emphasizing the ability to read and/or produce letters—does not provide consensus among literacy researchers.

Historically, literacy has been determined in different ways, with the greatest emphasis on reading. Resnick and Resnick (1977) describe four stages in which the definition of literacy has involved different types and levels of performance. First, the *signature* stage involved only the ability to sign one's name, with the proxy of an "X" sufficing in some times and places. The *recitation* stage next required a demonstrated ability to read or recite selected passages from memory, without necessarily understanding the words (more on "understanding" to follow). The *comprehension* stage followed, requiring the reading or recitation of a passage along with some demonstration of a literal understanding of its contents. Finally, according to Resnick and Resnick's outline, the 1970s produced the *analysis* stage, which considers a literate reading one in which the reader both comprehends and takes a critical stance toward a newly-read text.

This notion of literacy's evolution suggests much about its protean nature. First, literacy has primarily been conceived of in terms of reading; writing has been required only to produce a signature or a mark that represents it. Second, Resnick and Resnick's (1977) account requires, at the most sophisticated stages, the "comprehension" of a written text. Yet comprehension has been determined through simplistic means, particularly through students' ability to answer multiple-choice questions that have been devised by researchers or assessment specialists in relation to a given passage. This approach assumes that the questions asked by the test developers are uniquely capable of producing information about what students do and do not grasp about what they have read.

Yet as researchers working from a transactional perspective have demonstrated, students may find legitimate meaning in their reading that is quite different from what a test designer, teacher, or researcher might consider to be important (e.g., Hull & Rose, 1990; Siegel, 1984; Smagorinsky & Coppock, 1994, 1995a, 1995b; see also Andrea Lakly's comments in Chapter 4). This meaning might come through a reader's invocation of background knowledge that is quite different from what a test developer might have in mind and thus through the reader's infusion of an idiosyncratic meaning in the signs of the text. Or it might come through a student's compathy with literary characters' emotions and experiences, something

not available through multiple choice questions posed by someone else because of the constructive, relational, contingent nature of the meaning that emerges through the confluence of reader, text, context, intertext, intercontext, and interevocation. I define these latter terms next.

Intertext refers to the ways in which all new texts are produced as part of a historical textual stream and its conventions. Mark Twain's *The Adventures of Huckleberry Finn*, for instance, might be situated in different intertexts that would produce different sorts of readings, discussions, and response. Taught in a class on satire, it might elicit a dispassionate and technical response focusing on the author's use of such elements as irony, e.g., when Huck's use of the term "nigger" can be interpreted to indicate author Mark Twain's critique of the white/black hierarchy of the 1800s and the hypocrisy of conniving and loutish Whites considering themselves superior to Blacks. In a class in African American Studies, which perhaps would enroll readers of different backgrounds and dispositions than the satire course would attract, and be taught by a teacher with a different orientation and focus, the same text might be placed in a different intertext, such as discussions of offensive curriculum decisions and horrific social conditions, thus producing quite a different response.

Intercontext (Floriani, 1993) accounts for the ways in which each context for reading values particular ways of engaging with texts that set the stage for further readings. For example, when a group of adults meets in a book club setting to discuss *The Adventures of Huckleberry Finn*, their intercontext would include both the general history of book clubs and the particular experiences of their own gathering of readers, which might allow for laughter, tears, the exchange of personal experiences, expressions of affect, the consumption of alcohol, and so on. In contrast, in a secondary classroom the intercontext of academic discourse and particular schools and teachers would provide a setting in which a more formal, detached reading led by an adult's direction might suggest the appropriateness of more (literally) sober and analytic response.

Interevocation is a term that I have developed during the process of considering these issues for this book. I will describe it in greater detail in Chapter 6. Briefly, it draws on Rosenblatt's (1978) argument that readers do not respond to texts themselves. Rather, they produce *evocations*, i.e., images¹ that they instantiate to represent the signs of the text. These images come from their storehouse of experiences and form the basis of the meaning that they derive from their reading. The notion of an interevocation accounts for chains of images that readers produce in order to link readings to prior readings and experiences that enable them to produce a meaningful response to their engagement with texts. From the perspective that I derive from my reading of Vygotsky, then, situating readings in intertextual, intercontextual, and interevocational histories contributes to the framework for how texts can be appropriately read.

A final concern regarding the outline of stages provided by Resnick and Resnick (1977) emerges from their reliance on what Street (1994) has called an *autonomous*

view of literacy: one that takes literacy out of its social and cultural context and views it as a discrete skill. When conceptualized as a discrete skill rather than cultural practice, literacy can be measured through the sorts of assessments that comprise the basis of reading assessment in the U.S. In contrast, however, many have argued that as a cultural practice set in intertexts and intercontexts—to which I would add interevocations—literacy becomes enmeshed in a host of other variables that are impossible to sift out or account for in large-scale assessments. Therefore, literacy in its autonomous conception is reductive, eliminating attention to the social, cultural, and historical environmental factors that are implicated in readers' efforts to become engaged in their reading.

I next turn to more recent efforts to define and measure reading, focusing on a set of articles published in *Educational Researcher*, which, as the default members' journal of the American Educational Research Association, serves as the world's most widely read research publication in education, the field that houses the vast majority of reading theorists and researchers. The authors of these papers provide an authoritative and definitive view of how to test reading comprehension and so serve as a useful source for assumptions about what reading is and how one can validly and reliably measure it, at least from the perspective of assessment specialists. I summarize my critique (Smagorinsky, 2009b) of their work here because our exchange illuminates critical differences between a Vygotskian perspective on literacy research, teaching, and learning, and the dominant views that attract massive funding and carry a federal endorsement.

The papers are striking in the *prima facie* manner in which the notions of *reading*, *literacy*, and *reading instruction* are presented by the authors. The authors talk about reading, literacy, reading instruction, reading comprehension, and "understanding" of reading without pausing to detail what these constructs might mean, even though views that challenge their assumptions are available. Croninger and Valli (2009) provide the only definition of reading in this collection. They reference Pressley's account of reading as "The ability of students to understand what is in text" (p. 100). There's a lot about this definition that I find problematic, even as the authors appear to find it sufficient and imbued with self-evident meaning. This brief definition includes a number of contested terms that call for explication, and in the absence of such elaboration from the authors, I need to provide what I see as necessary in order to force a more finely-grained discussion of these issues.

By confining their definition of reading to "students," the authors overlook the well-documented facts that students are not the only people who read, and that children and adolescents do a lot of reading outside their role as students. Limiting the notion of reading to "students," then, suggests that their conception of reading is grounded in how reading tends to get treated in school: as a discrete and measurable act. A number of studies, however, show that young people read a great deal beyond what school requires of them: playing and reading about video games (Smith & Wilhelm, 2009), navigating online environments (Black & Steinkuhler, 2009),

participating in after-school programs (Cole, 1996), engaging in everyday cultural exchanges (Majors, Kim, & Ansari, 2009), and being involved with texts in countless other settings and manners.

These studies reveal that youth exhibit far greater levels of engagement and strategy use in these settings than they demonstrate in classroom reading lessons. What happens in school would thus benefit from understanding children's experiences with reading that they undertake for purposes other than being taught to read in school. Literacy studies need to take into account a variety of reading experiences, many of them far more open-ended than those that occur during school reading lessons, which when carried out in the manner endorsed by the authors of the *Educational Researcher* articles, is highly restricted for the purpose of teaching specific strategies in relation to contrived texts designed to provide the stimulus for measuring students' ability to answer questions aligned with those strategies.

The authors further never clarify what they mean when they say that a text is something that a reader is able "to understand." I infer that by *understanding* they mean the degree to which students can correctly answer multiple choice questions on reading assessments; other ways of engaging are presumably not critical to what might emerge from a reading transaction. For instance, Rowan and Correnti (2009) disapprove of the fact that in some classrooms they observed, students were "likely to be asked to make personal connections to text, construct a literal interpretation of a text passage, or sequence information from passages, rather than analyze or evaluate textual passages or compare and contrast texts" (p. 126). I see this critique as founded in Bloom's (1956) taxonomy of educational objectives, one in which such acts as making a personal connection to a text might be categorized as low-level cognition. Actually I would argue that making personal connections to texts could just as easily be treated as a comparison and contrast action, which (1) is a higher-level kind of thinking in Bloom's taxonomy; (2) might involve the sort of analytic, synthesis-oriented thinking geared toward broad generalizations prized in Bloom's conception; and (3) engages readers in the process of interevocation that I see as central to the act of constructing meaning.

But to these authors, personal connections appear to represent low-level, non-analytic responses that obstruct the sort of reading that, as measurement specialists, they prefer. Other studies in contrast have indicated that inscribing oneself in a text can inform a reader's meaningful reading transaction (Smagorinsky, Cameron, & O'Donnell-Allen, 2007), contribute to identity development (Gee, 2003), provide a cognitive and emotional framework for interpreting action (Beach & Hynds, 1991), and enable access to content and material for generating meaning as part of a reading experience. Such inscriptions involve decoding what is on the page and *encoding* a text with meaning (Smagorinsky, 2001). They further include *emplotting* a reading (Ricoeur, 1983), i.e., placing it in dialogue with and extending readings of other texts regardless of the sign systems in which they are produced. I consider such actions to involve complex and sophisticated thinking; and from a Vygotskian perspective, they provide the social, cultural, and historical framework that informs

and shapes one's engagement with texts and their readings in intertextual, intercontextual, and intervocational settings.

I find it questionable that Bloom's (1956) taxonomy, in spite of its many durable virtues, provides the only possible way of evaluating a question's potential for prompting high-level cognition, or that answering someone else's questions in accordance with the questioner's preferred answers is the optimal way of engaging with a text. I argue that "comprehension" and "understanding" are obsolete constructs in light of the broader possibilities for interpretation and meaning-construction that have emerged from recent studies of how readers engage with texts. I thus find students' ability to answer multiple-choice questions to be a questionable vehicle for evaluating the quality of reading instruction because it has no resemblance to young people's authentic transactions with texts of their choice, framed by questions that they pose and to which they seek answers, in settings that they construct to frame their readings.

The authors in this collection appear to accept the premise that "reading" is a skill that can be taught isolated from any connection to the content, genre, and cultural conventions that are involved in reading specific texts in particular settings. Croninger and Valli (2009) appear to regard "reading" as an act that occurs on its own and so can be taught irrespective of situational factors. One consequence of this assumption is that learning to "read" is believed to involve acquiring a set of transferable skills or abilities that can be taught as an isolated part of the curriculum. This belief represents one side of the old dispute regarding critical thinking, in which some treat thinking as a situated practice (e.g., Brown, Collins, & Duguid, 1989) and some conceive thinking as a general practice (e.g., Ennis, 1989).

This disagreement on the specificity of knowledge is the debate that Michael Smith and I entered (Smagorinsky & Smith, 1992) and that is still in play in discussions of literacy development. We identified three general perspectives on literacy knowledge. The general knowledge position predominates among those who seek to standardize teaching and learning by means of testing and related curriculum mandates. Task- and community-specific positions are held by those who view knowledge development as more local and contingent. Those working in this latter tradition have found abundant evidence supporting the view that literacy practices are differentiated according to task and community of readers and that the social act of reading is situated within the expectations of particular groups of writers and their readers, rather than having generic or autonomous properties (Nystrand, 1986).

Duke (2000), for instance, has argued that learning to read informational writing relies on different schematic knowledge than does learning to read narratives, and that the scholastic emphasis on narrative reading does not serve to prepare students for texts that are codified to prompt other strategies (see Rabinowitz, 1987, for further differentiation in more sophisticated literary reading). McCarthey and Raphael (1992) argue that even quite early in life, readers are oriented to the expectations and codification of disciplinary texts, and thus to the demands of

particular discourse communities. More recent studies (e.g., Honig, 2010) have confirmed that texts produced within communities of practice involve recognition and appropriate strategic response to the specialized language, organization, syntax, and other features of the text.

With respect to the cultural backgrounds of readers, Heath's (1983) 10-year ethnographic study of how children develop abiding orientations to reading before entering school is instructive (cf. Lee, 1993). The white fundamentalist Christian children in the community that Heath studied were exposed almost exclusively to *The Holy Bible* as a text, and it served as a verbatim statement of truth that they could not question. Such children, upon entering school, had trouble questioning texts when such interrogation was expected and suffered academically as a consequence of this cultural orientation to reading. In contrast, the children in the African American community she studied were taught at home that solitary reading was an antisocial activity from which they were discouraged. Instead, they were urged to get outside and engage with their neighbors socially (cf. Delpit, 1995). In school, however, they were expected to read quietly, a practice that they found difficult to acclimate to. Like the White children of fundamentalist orientation, they found school success difficult to achieve.

The students best socialized to reading in school were the children of middle class parents, particularly children of teachers. These children's early reading experiences reflected the sort of question-and-answer routines that formed the basis of reading instruction in school, and their familiarity with such exchanges contributed to their school success. Heath's study identifies the ways in which children are immersed in communities of practice that provide their orientation to reading, with Cole (1996) arguing that such socialization begins in the first moments of life. Although much research on discourse communities is concerned with academic disciplines (Bazerman & Paradis, 1991), professional writing genres (e.g., Baurfort, 2009), and other adult structures, Heath demonstrates that orientations to reading originate in the emerging web of social relationships into which children are acculturated from their earliest moments of consciousness.

The *Educational Researcher* authors' focus on reading as a discrete area of instruction amenable to isolation for teaching purposes is evident in Croninger and Valli's (2009) claim that "Even when teachers carry out their instructional responsibilities in the classroom, student mobility obscures the one-to-one relationship between students and teachers, necessitating some unintentional sharing of teaching responsibility" (p. 103). Yet the belief in such one-to-one relationships and cause-effect variables is undermined by the theoretical work in intertextuality and intercontextuality in that any discourse act is historically and culturally linked to prior acts that rely on related speech conventions and social practices.

Croninger and Valli (2009) acknowledge that "We found our ability to isolate the sources of reading instruction in schools far more complicated than we anticipated" (p. 104). From the perspective of social-cultural-historical literacy research, undertaking such a quest is doomed because no social action, including school

teaching and learning, is isolated to begin with. Indeed, their realization serves to confirm the Vygotskian principle that literacy development is a complex phenomenon that is grounded both historically and contemporaneously: Literacy practices emerge from practices learned in prior settings (the intercontext) and are implicated in a host of concurrently occurring phenomena that defy isolation.

Croninger and Valli (2009) claim that “Even when researchers seek to develop designs that capture complexity, our theories and methods often prove inadequate for accomplishing these goals” (p. 103). I agree that if the goal is to isolate variables that cannot be disentangled from others in order to measure their effects, then the theory is indeed inadequate. Other theories, such as Vygotsky’s (1987) perspective on tool-mediated human development, are available, however. These frameworks provide different assumptions that would lead to a different set of research questions and related methods, and have provided the field with investigative principles and tools for nearly a century now.

While including attention to issues facing educators in high-poverty schools, the authors in the *Educational Researcher* issue appear to view the normative setting for reading instruction to be the affluent suburban classroom. Pianta and Hamre (2009) condemn the “high degree of variability in classroom quality” without considering why one class might be different from another. They also value “productive instructional activities with caring and responsive adults who consistently provide feedback and challenge students to think critically” as the sole criterion for a quality classroom with no consideration of what else might be valued in a school setting (p. 115).

The authors deplore the inequitable education provided to disadvantaged students. They appear to believe, however, that the problem resides in teachers who choose to spend time on discipline rather than on the life conditions that might cause young people to act out in school. As Lee (1993, 2007) has shown, urban students living in extreme poverty have vast untapped potential that can be cultivated by teachers who are sensitive to their backgrounds and who develop strategies that enable students to link their home experiences and discourse practices to school-based literacy demands. Doing so requires teachers to rethink instructional models developed for middle-class populations and pay careful attention to the ways in which different social groups are acculturated to textual exchanges through home and community life.

Teachers thus cannot teach as if their students all come from the same generic culture. In her narrative of learning to teach immigrant Haitian children whose behavior was often incomprehensible to her, Ballenger (1999) recounts her initial struggles with students who were not socialized to the norms of a U.S. school experience. At home, for instance, the parents did not read to the children, and so they came to school with no experience in the sorts of routines expected during reading lessons. Ballenger found that she had to understand what she did not know about the children as a first order of business, and then shape her instruction in relation to the students’ cultural practices.

Her students, she understood, were not receptive to traditional question-and-answer instruction, as were the children of the middle-class parents studied by Heath (1983). Like other culturally-responsive teachers (see, e.g., the many educators described by the contributors to Christenbury et al., 2009), Ballenger dedicated her teaching to understanding the cultural practices of her students and adapting her teaching accordingly. She thus exhibited the perspective and disposition of the sort of culturally-aware reflective practitioner whom many believe to be critical to educating diverse populations during what many forecast will be a century of demographic transformation in the U.S. (see, e.g., the publications at <http://www.coe.uga.edu/~smago/SL/SLBookClubs.htm#Menu>).

The orientation of the researchers featured in *Educational Researcher* encourages uniformity in which students' response should follow a single path. Variation from the script undermines the system. Among the research goals of these papers is to place, as Pianta and Hamre (2009) state, "validated, standardized observational assessment of teachers' classroom instruction and interactions more squarely into the realm of large-scale education science . . . [Such assessment] could have tremendous downstream consequences in terms of traction on questions that vex the field" (p. 109). The metaphors employed by the researchers suggest their top-down view of educational systems as they seek to shift the focus to "how inputs produce achievement through debate about effective or qualified teachers." Pianta and Hamre argue that

Placing direct assessment of actual teaching as a central feature of accountability frameworks and provisions for equity of educational opportunity are likely to accomplish several interlocking aims that in a coordinated fashion could result in substantial shifts in the nature and quality of instruction, socialization, mentoring, and tutelage that takes place in classrooms and a robust science of the *production* of teaching and teachers. (p. 110; emphasis in original)

If the mechanistic conception of teaching and learning that I find pervasive in these articles is not evident elsewhere, then the authors' emphasis on the view of teachers and their teaching as products of the larger assessment machinery should be apparent from their phrasing here. Students function as test-score producers whose performances allow the policy-makers to have a measurement by which to evaluate both the teachers' instruction and their fidelity to the hierarchical system itself.

I much prefer the view of Ballenger (1999) and her stance as a member of the community of reflective practitioners, teacher researchers, action researchers, or however else a teacher's systematic reflection on her teaching might be characterized. Ballenger is highly sensitive to her students and how they are and are not socialized into the practices of schooling. She is also humble enough to know when something is not working and address the problem by means of systematic, informed analysis. She reads widely and integrates her book knowledge with her

experiential knowledge to contribute to her growing conception of how to teach diverse learners. She respects her students and their families and adapts her teaching to their ways of knowing; and she respects the curriculum enough to maintain its integrity while adapting it to the characteristics of a new cultural group in her school. She consults with colleagues who help her think about how to address the gap in her understanding of how to teach students from cultures different from her own.

As such she is developing a situated notion of “best practice,” one at odds with the conventional notion of “best practice” as a set of instructional methods developed by outside experts and superimposed hierarchically to suit the needs of any student in any classroom (see Smagorinsky, 2009a). If I were hiring teachers, I’d want them all to be like Ballenger: those with the *chutzpah*, courage, intelligence, and initiative to question norms and teach as they determine is effective and appropriate in the settings of their communities and in relation to the social-cultural-historical practices brought to class by their students. I’d much rather have teachers like her in my school than the system components that Rowan and Correnti (2009) believe should populate the teaching force.

I am not taking the romantic view that all teachers are wonderful; I see Ballenger more as an exemplar than as typical. Like the authors of the articles in this issue of *ER*, I would love to have a teaching profession in which all teachers are highly qualified in everything they do. My concern is that when the system is built for teachers who follow directions, then that is the sort of teacher the profession will attract and retain (see Chapter 4). I would much rather populate the system with teachers who have the authority to make decisions based on their good judgment as exercised locally and relationally. This standard would make reflective practice the measure of quality. As a consequence it would attract and retain teachers who have the initiative and disposition to make informed judgments based on their careful and systematic observation of children. Entrusting authority to teachers inevitably produces considerable variation in instruction; each classroom will be different because both the individual children and their overall chemistry will be unique, and one teacher’s judgment will reflect that person’s evidence-based decisions rather than follow a standardized path imposed from without. The most effective teacher will thus be one who can observe, reflect, intervene, and teach as she deems appropriate. Such situated action is at the heart of a Vygotskian approach to literacy instruction.

The study of reading from a Vygotskian perspective thus needs to accomplish more than seeing if people can respond to questions such that the answers correspond to those preferred by a test-designer. As I will detail in Chapter 6, reading is a cultural phenomenon, not a practice that is isolated for testing purposes. How one reads is a function of the setting of the reading and its socially, culturally, and historically established goals, strategies, purposes, and other processes and motivations as they intersect with what readers bring to the transaction. Taking these factors of setting into account is a central problem for those who study reading and its role in human development.

WRITING

Kintgen, Kroll, and Rose (1988), in compiling and editing their collection of classic papers on literacy, observe that reading and writing have not always both been considered properties of a literate performance. Geoffrey Chaucer, for instance, lived in the 1300s, when writing was the province of a few select scribes. Like other storytellers of his era, he delivered his material, including *The Canterbury Tales*, orally. Chaucer worked in the tradition of Greek poet Homer, who told his *Iliad* and *Odyssey* as an itinerant raconteur 2,200 years earlier, with written versions only appearing in about 800 BCE with the advent of the Greek alphabet. Writing, note Kintgen et al., has not only been regarded as unnecessary in the past, it has even been distrusted and scorned by such influential thinkers as Plato, who opposed writing because he believed that it reduced the demands on memory and so weakened the mind.

Some 21st century people also distrust writing, although for very different reasons. Among many Native Americans, for instance, "Written language is viewed as the creation of the White society, one that has historically rejected them and used literacy against them in the form of treaties and other documents that cost them dearly" (Belgarde et al., 2009, p. 418), a perspective that potentially alienates Native students when writing provides the only medium available to them for expressive purposes in school assessment.

While reading provides the basis for Resnick and Resnick's (1977) stages of literacy epochs, writing theory and research only cohered in the U.S. as a discipline in 1963, when the National Council of Teachers of English (NCTE) published Braddock, Lloyd-Jones, and Schoer's *Research in Written Composition*, a review of writing research spanning the extant history of investigations into school-based writing instruction, which at the time was the only aspect of writing studied in research. Their review extended from the very first writing studies conducted in the early part of the 20th century through 1962. Braddock et al. framed their review with the observation that research in writing "has not frequently been conducted with the knowledge and care that one associates with the physical sciences" (p. 5). They maintained that research on writing needed to be characterized by the qualities that distinguish investigations in the hard sciences: reliability, validity, and replicability. Studies that did not meet these criteria, they argued, represented alchemy rather than science, and were "laced with dreams, prejudices, and make-shift operations" (p. 5).

This analogy of composition as emerging from the Dark Ages and into the age of Enlightenment was accompanied by the field of composition's efforts to escape its low status as a discipline. Kinneavy (1971) lamented the fact that

Composition is so clearly the stepchild of the English department that it is not a legitimate area of concern in graduate studies, it is not even recognized as a subdivision of the discipline of English in a recent manifesto put out by the

CHAPTER 5

major professional association (MLA) of college English teachers . . . in some universities is not a valid area of scholarship for advancement in rank, and is generally the teaching province of graduate assistants or fringe members of the department. (p. 1)

One way of raising the standing of composition studies was to adopt a scientific method to guide scholarship. Denouncing the current state of composition studies as medieval and setting a more scientific agenda, then, enabled Braddock et al. (1963) to formalize writing research as a scholarly field with greater *gravitas* in the academy. Indeed, *Research in Written Composition* reads as much like a handbook about how to conduct scientific studies as it does as like a review of research findings. The authors' intent is unabashedly didactic, with a chapter on how to design research, a glossary of research terms, critiques of the flaws of many studies, a section on how to read research critically, and extended reviews of the handful of studies that the authors believed to meet criteria for scientific rigor. The reader, presumably interested enough in writing research to read the report, is assumed to be unacquainted with the conduct of scientific research and thus in need of the authors' schoolmasterly treatment of the topic.

The new emphasis on composition as a scientific discipline suggested the need for scholarly journals in which to publish research on written composition; much of what Braddock et al. (1963) reviewed consisted of unpublished dissertations and articles in journals not specifically oriented to writing or English studies. Braddock became the founding editor of NCTE's *Research in the Teaching of English* in 1967, the first research journal dedicated to systematic investigations in the domain of English. Previously, such studies had gone unpublished, appeared in monographs such as the NCTE Research Report series, been published in general education or perhaps psychology journals, or appeared alongside practical ideas, curriculum theory, teacher education pieces, and much else, in one of two all-purpose journals: *College Composition and Communication* (launched in 1949) in which first-year composition teachers and theorists published ideas of interest to their readership, and the even more established *English Journal*, which since 1912 had included occasional research reports amidst their broad offerings to NCTE members.

At the time, neither of these journals included a peer-review process, the gold standard for scholarship; and without the sort of rigorously trained reviewers available now to editors of research journals (assuming that Braddock et al. correctly assessed the quality of work in the field), the external review process for such submissions might have been spotty even if external, anonymized reviewers had been consulted. Under Braddock and his successor Alan Purves, even *RTE* was not refereed by external peer reviewers. Only under Roy O'Donnell's editorship from the mid-1970s through the early 1980s did *RTE* send manuscripts out to reviewers under the double-blind procedure in which neither author nor reviewer is aware of the other's identity.

Research in the Teaching of English was but one of many journals to be established following the publication of *Research in Written Composition*. In addition, the following journals were inaugurated: *The Journal of Basic Writing*, 1975; *WPA: Writing Program Administration*, 1977; *The Writing Center Journal*, 1980; *Pre/Text*, 1980; *The Journal of Advanced Composition*, 1980; *Texte*, 1981; *The Writing Instructor*, 1981; *The Journal of Teaching Writing*, 1981; *Rhetoric Review*, 1982; *Rhetorica*, 1983; *Computers and Composition*, 1983; *Written Communication*, 1984; *Reading & Writing Quarterly*, 1984; *Teaching English in the Two-Year College*, 1984; *Journal of Second Language Writing*, 1992; *Assessing Writing*, 1993; and the *Journal of Writing Research*, 2008.

The field's orientation to instruction-oriented quantitative studies of writing persisted through much of the period covered by a second composition review that was commissioned by the National Conference on Research in English (NCRE, later changed to National Conference on Research in Language and Literacy/NCRL). This second review (Hillocks, 1986) was designed as a followup to Braddock et al. (1963) and covered 1963-1983. The quantitative bias explicit in both Braddock et al. and Hillocks, however, began showing signs of wear toward the end of the two decades reviewed by Hillocks. As the 1970s drew to a close, researchers began looking to other disciplines for theories and methods of investigating writing.

Janet Emig's doctoral dissertation, published in 1971 as *The Composing Processes of Twelfth Graders*, showed the potential of case studies for understanding the *process* of writing, a new area of inquiry following the field's historical focus on written products. This approach appealed to many writing researchers whose introduction to the profession had come through the humanities and who had never embraced the reduction of data to numbers. Collecting data through observation, interview, and various means of self-report made more sense to them than counting frequencies of writing traits and then comparing them statistically. Using narratives to tell the story of the well-documented case rather than building a report around the tabulation of statistics fit better with the frameworks through which they had been primarily acculturated into the discipline.

Qualitative researchers were, however, still struggling for credibility toward the end of Hillocks's (1986) 1983 cutoff date and were accorded lesser significance in his review. Hillocks used a meta-analysis of experimental research as the cornerstone of his claims about the most effective methods of writing instruction, locating his review within the quantitative tradition with which Braddock et al. affiliated theirs. As a reflection of the shift that had begun taking place within the field, some reviewers of Hillocks's volume took exception to his quantitative orientation (e.g., Durst, 1987; Newkirk, 1987) and argued for a more ecumenical vision of writing research.

I had the opportunity to produce the third volume in the NCRE/NCRL series of reviews of writing research, with my book (Smagorinsky, 2006) covering 1984-2003. Following the experimental bias of Braddock et al. (1963) and

Hillocks (1986), and especially the field's reaction to Hillocks's views regarding the relative value of statistical and non-statistical approaches to writing research, I chose to take a more inclusive view of what composition is and how one might investigate and write about it. I decided, for instance, to edit a volume rather than attempt to review the whole field myself. The chapters I recruited, while concerned with findings about effective practice and including research conducted according to traditions of the hard sciences, distributed the perspective on writing to reflect the myriad of other interests and approaches that had developed since the publication of Hillocks's volume.

This approach to producing the review of writing research represented the shift in my own orientation toward social-cultural-historical approaches. As a doctoral student and teacher under Hillocks's mentorship, I shared his belief in the efficacy of certain writing practices, and they had shown very well in experimental research, topping his meta-analysis findings in virtually every category. As I recall in this book's Preface, my indebtedness to the structured process method of teaching writing was a big part of my decision to return to graduate school and had served as the foundation for the design of my doctoral dissertation study (published as Smagorinsky, 1991).

My reading of Vygotsky and related scholarship, however, began to raise questions for me about whether or not such a thing as a "best teaching practice" could be identified across the range of cultural-historical variables that produce the unique confluence of community, traditions, state and federal mandates, student and faculty demographics, school routines, and other factors that form the setting for particular classrooms. This theoretical orientation has changed my perspective on studying writing in school, departing from the belief that a single set of practices can be identified that will result in superior efficaciousness and gravitating toward the more situated perspective that what works depends on the convergence of a host of factors in the setting of instruction (Smagorinsky, 2009a; see Hillocks, 2009, for a rejoinder in which he asserts that best practices are indeed available across settings). Such an orientation requires a shift from the primary research question that the field was concerned with through the 1970s and 1980s—What method of teaching writing works best?—to the more situated set of questions that can be loosely summarized as, Why is this happening here?

The "social turn" in writing research indexed by many of the contributors to my 2006 volume became, during the period covered by our review, entangled in a host of other issues that emerged toward, and subsequent to, the *fin de siècle* that occurred in its midst. Issues of equity, gender, cultural practice, social relationships, culturally-learned ways of knowing, tacit hierarchies and power relationships, the social nature of textuality, and other concerns had emerged as a focus of research, both arising from and contributing to perspectives provided by scholars oriented to the various "post" positions—poststructuralism, postmodernism, postcolonialism, postfoundationalism, postrevolutionism, postemancipatoryism, etc.—as well as feminism, critical theory, queer theory, multiculturalism, socioculturalism, and other ontologies and epistemologies that have influenced society and education in

recent decades. These theories have brought new research perspectives, questions, and methods to the study of composition, drawing on traditions from research in anthropology, communication, sociology, psychology, philosophy, and other disciplines that have been adopted since the publication of Hillocks's (1986) volume.

Hillocks's 1983 cutoff date coincided with a series of epochal changes in composition studies. Neither Braddock et al. (1963) nor Hillocks (1986) attended to what is termed action research, practitioner research, or teacher research of the sort practiced by Ballenger (1999, 2009). Indeed, I was told early in my career that a researcher cannot study his or her own teaching because a teacher cannot take a disinterested stance toward her own classroom and thus is biased; and a colleague in my own department tells my students to this day that studying one's own teaching is inherently unethical because it is necessarily coercive, even as they persist in studying their own classrooms. The social turn, however, has emphasized the intrinsic bias in all data collection and analysis (Smagorinsky, 1995a) such that a detached outside observer is just as likely to impose an agenda or perspective on data as is the practitioner (see Chapter 3).

Indeed, argue proponents of teacher inquiry (e.g., Fecho, 2001), the teacher's emic or insider position enables insights unavailable to the outside observer, and her relationships with the students can serve as a topic of inquiry rather than an impediment to disinterested investigation (Freedman, Simons, Kalnin, Casareno, & The M-CLASS teams, 1999). If thinking is indeed social in origin, then understanding the social context of students' learning is critical, and the teacher is uniquely positioned both to plan the context and understand its implications through systematic reflection (Fecho, Allen, Mazaros, & Inyega, 2006).

Heath's (1983) landmark ethnography of community literacy (reviewed in Chapter 4) ushered in a second important trend, that of studying family and community literacy rather than conceiving of learning to read and write solely in school (cf. Cushman, Barbier, Mazak, & Petrone, 2006). Heath's study was significant for a number of reasons. First of all, she drew on her background in anthropology to conduct a ten-year community ethnography. In doing so she created a new possibility for composition researchers, that of borrowing methods from outside the scientific tradition to investigate writing. Secondly, she revealed the relation between home and community literacy practices and school success by documenting the differential experiences of the white fundamentalist Christian, black, and middle-class white students in her study in home and school settings.

Heath's study helped to awaken educational researchers to the importance of understanding home and community literacy practices in order to anticipate and address educational struggles and to rethink schooling to be more responsive to the range of literacy practices their students bring from home. This recognition coincided with field-wide trends that stressed the situated nature of cognition, the local nature of cultural practice, and the ways in which particular cultures establish their norms as authoritative and natural (e.g., Newman et al., 1989; Rogoff & Lave, 1984). The 1980s and 1990s also saw the increasing influence of perspectives that

deconstruct institutions and the ways in which they foster particular kinds of relationships, especially those that create exploitation, suppression, inequity, and other social hierarchies. Heath's study revealed the ways in which schools normalize the values of the White middle class, making other ways of being literate appear to be less viable in school and creating status differentials within the school culture as educators take deficit views of students whose behavior and academic performance respond to other standards learned in other cultural settings. Studies of community literacy have often picked up on this stream, with increased attention to providing better educational opportunities for marginalized groups in school.

Family and community literacy studies have also viewed home literacies independent from their impact on schooling. Increasingly, researchers are interested in understanding the ways in which community members engage in situated literacy practice as a way of understanding broader social structures, considering such questions as: To what authentic purposes do people put writing in their lives? How does writing position them socially and politically? How does writing work in conjunction with other *funds of knowledge* (Moll, 2000)—those shared resources that enable members of marginalized communities to pool knowledge and material advantages for collective benefit—to enable people to function in society? How are social relationships, including those that are inequitable, sustained by access to literacy practices? These questions and many others have been investigated as composition researchers have moved the scope of their work into the lives of people who write as a means of social action, from producing shopping lists (Witte, 1992) to expressing themselves in online environments (Kirkland, 2010).

Another site outside school that writing researchers took an interest in was the workplace. In 1984 John Daly and Stephen P. Witte, from the disciplines of Communication and Composition and Rhetoric, instituted the journal *Written Communication* to provide a forum for writing research that departed from NCTE's emphasis on classroom writing instruction. A year later Odell and Goswami (1985) published an edited collection called *Writing in Nonacademic Settings* that further helped to establish the workplace as a legitimate site for writing research. Research on writing instruction had often claimed implications for preparing students for "real world" writing; researchers now began to investigate what that world required and what that writing involved.

Studies of workplace and professional writing took on importance because of their fit with the theories that were becoming central to composition researchers (Beaufort, 2006). The social nature of workplace and professional writing fit well with developing interests in intertextuality, writing genres, socially situated cognition, and other theoretical streams that have flowed through composition studies in the past twenty years. Bakhtin's *The Dialogic Imagination* was translated into English in 1981, introducing the key constructs of dialogism and heteroglossia to diverse fields of scholarship; Miller's "Genre as Social Action" was published in 1984, bringing to the field of composition the Bakhtinian notion that writing genres are socially constructed. Barthes' "Theory of the Text" appeared in 1981 and

Kristeva's *Revolution in Poetic Language* was translated in 1984, introducing the construct of intertextuality. During this time, translations of Derrida's *Of Grammatology* (1974), Vygotsky's *Mind in Society* (1978), and other key texts were gaining a wider audience and beginning to influence composition theory. The field's new thinking was realized in publications such as Nystrand's *The Structure of Written Communication* (1986) in which writing was viewed as a social-interactive process conducted in relationship with socially situated others.

These developments helped to establish the importance of studying how people write at work, where specific genres such as the business memo distill the cultural values of the workplace, require knowledge of discourse, are intended to communicate high-stakes information, and otherwise bring into play extensive social networks of knowledge and relationships that are played out through the production of texts. Significantly, the knowledge required to write successfully in an office environment departs radically from the kinds of writing taught and valued in college, further contributing to writing theories that challenge the notion of generic properties of good writing and beliefs about best instructional practice (Anson & Forsberg, 1990).

Workplace writing also requires particular attention to the technologies that mediate writing. In 1983, personal computers were scarce, electronic mail was primitive, and the world wide web was a dozen or so years from widespread accessibility and usage. The exponential proliferation of computer-related technologies has dramatically changed the ways in which people read, write, and transmit texts to others. Increasingly, computer-based text combines written communication with other media: graphics, sound, and other images that the technology allows. The study of workplace writing, then, has further complicated composition studies that were limited to speech-based communication, given the myriad ways in which a text can now be produced and read.

Finally, writing in foreign, second, additional, or otherwise new languages has become a focus of researchers since the early 1980s (Leki, Cumming, & Silva, 2006). Bilingual, English as a Second Language (ESL), English as a Foreign Language (EFL), and related kinds of writing have become a focus of intensive research in response to immigration waves from Asian and Latin@ diasporas that have required communities and school systems to absorb new populations of non-native speakers. From a Vygotskian perspective, teaching these populations effectively requires more than finding one-to-one correspondences between native alphabets and words and their counterparts in English. It involves a cultural understanding of the practices and routines that provide the behavioral norms, orientations to social institutions, notions of appropriate behavior in academic settings, religious beliefs, and other factors that these new demographics bring to school settings. Treating cultural newcomers with respect and dignity, from a sociocultural standpoint, suggests the importance of responses such as Ballenger's (1999), in which she viewed her role as teacher as one of learner about the unfamiliar cultural practices of her immigrant students and how to situate their learning in the

context of the frameworks for learning and acting that they brought with them to the school setting (cf. Fu & Graff, 2009).

Studying writing as a literacy practice from a Vygotskian perspective thus requires attention to the context of composing. This context is not simply the immediate environment in which a writer writes, but, most significantly, the cultural and historical elements of that setting that suggest the appropriateness of particular conventions, syntax, vocabulary, diction, and other aspects of composing a text. Recall the precept that Vygotsky's unit of analysis, word meaning, has been broadened by Wertsch (1991) to include goal-directed, tool-mediated action; to which I would add that this action must be volitional if it is to serve the developmental needs so central to Vygotsky's formulation. Wertsch's adaptation further implies that this action involves a social, cultural, and historical context, requiring one to account for the social languages and speech genres invoked, the values of the setting that suggest their appropriateness, the relationships that provide the social grounds within the setting, and other factors that contribute to what Nystrand (1986) calls the degree to which a writer is "in tune" with the expectations of a community of readers.

BEYOND READING AND WRITING

Since Kintgen et al. (1988) produced their collection of essential readings in literacy studies, another major shift has occurred in literacy research, that corresponding to the definition of "having knowledge or competence" in relation to a field, technology, or other mediator. The abundant scholarship in semiotics (e.g., New London Group, 1996; Smagorinsky, 2001; Witte, 1992; and many others) has helped to expand the notion of *text* to account for all manner of sign configurations beyond verbal representation and expression. Research journals that focus on reading and writing are currently publishing articles on such representational and constructive acts as the composition and interpretation of drawings and other sorts of designs that represent plans to be enacted in such diverse fields as architecture (e.g., Smagorinsky, Cook, & Reed, 2005), equine management and production (Smagorinsky, Pettis, & Reed, 2004), and interior design (Smagorinsky, Zoss, & Reed, 2006). This well-documented expansion of what comprise literacies (Street, 1984)—ranging from ancient media such as choreography (Smagorinsky & Coppock, 2005a) and drawing (Smagorinsky & Coppock, 1994) to newer digital multimodal forms (Hull & Nelson, 2005)—has caused a reconsideration of textuality in the context of literacy research.

Although attention to nonverbal composing is often thought to be a new development, it actually precedes widespread acquisition of reading and writing abilities by a good many centuries. In the 6th Century, for example, Pope Gregory the Great proposed that the scriptures be depicted artistically on the walls of churches for the education of the largely unlettered Christian masses (Smagorinsky, 2009c). In the French city of Arras in 1025, religious leaders revived this idea, believing that it

might enable "illiterate people to learn what books cannot teach them" (Gies & Gies, 1994, p. 130). During the Middle Ages sculpture was the most esteemed artistic medium because it could be appreciated and understood by everyone from lettered aristocrats to uneducated peasants. Because the Cathedral of Notre-Dame depicted the Biblical narrative in sculpture and other art forms so that it could be "read" by the masses, the church was known as the Sermon in Stone and the Bible of the Poor.

Many centuries later, this belief in the representational and communicative potential of nonverbal texts was revived. This movement is evident in the work of Lotman (1974, 1977), founder of the Tartu-Moscow Semiotic School in Estonia, and subsequently in the work of Suhor (1983), Harste, Woodward, and Burke (1984), Street (1984), Blonsky (1985), Witte (1991), Smagorinsky (1995b), and many others as "multimodality" has become a popular catch-phrase among literacy educators. A semiotic perspective on literacy is based on the notion that every human construction is a text that is composed of signs, and therefore has a potential for providing a meaning to be constructed by its readers. Semiotics has influenced researchers interested in textuality, reading, writing, digital expression, educational achievement, and other facets of learning that are oriented to understanding how people communicate through texts, written or not (Gallas, 1994; Whiting, 1996). This body of work has spawned such terms as *multiliteracies* (Cope & Kalantzis, 2000) and *multimodality* (Kress & van Leeuwen, 2001), which people produce through such processes as *design* (New London Group, 1996) and *composition* (Smagorinsky, 1995b), terms that suggest a broader set of practices than simply *writing* (see Chapter 8).

In 1983, concurrent with the developments that I have reviewed that greatly expanded the scope of writing research, Howard Gardner introduced his theory of multiple intelligences in *Frames of Mind*. Almost simultaneous with Gardner's publication, Harste et al. (1984) included the drawings of children among their literacy efforts, and Suhor (1984)—a musician as well as English educator—proposed a semiotic curriculum that stressed multiple sign systems. The introduction of semiotics into composition studies began to alter scholarly thinking about what it meant to "write." If the children observed by Harste et al. and by Graves (1983) and his colleagues alternated between writing and drawing in the same effort to communicate, what distinguished writing as a distinct mode of expression? The field of semiotics, with its attention to sign systems, provided a conceptual vocabulary for conceiving of "composition" as including more than just writing such that composing could include any process that produced a set of signs that could be "read": a musical score, a drawing, a performance, a sculpture, and so on.

At around the same time, cultural psychologists such as Wertsch (1985) were reaching broader audiences with their interpretations of Vygotsky (1978, 1934/1987), Bakhtin (1981), and others who viewed language as, in Lotman's words, "any communication system employing signs that are ordered in a particular manner" (cited in Holquist, 1981, p. 430). This formulation entered composition

studies through Witte's (1992) notion of a "constructivist semiotic" of writing that was employed in later studies by Smagorinsky (1995b), the New London Group (1996), and others. This new conception enabled researchers to include both traditional arts (dance, drawing) and emerging capabilities (computer graphics) to be considered along with writing as mediational means for developing and representing meaning.

In addition to expanding the cultural tool kit (Wertsch, 1991) available for constructing texts, this work has taken on an ideological, cultural, and economic perspective that is absent from autonomous conceptions of literacy. Gee (1990) argues that literacy is not limited to words but involves the full disposition that one brings to a social interaction, thus being ideological in that it represents a stance in relation to the world. The New London Group (1996) argues that educators must view literacy in the context of global change, particularly that involving technology that produces images, sounds, icons with particular spatial relations, and other sign systems along with language to produce texts with meaning potential. Producing and making sense of these signs requires a sophisticated approach to "reading" that is typically overlooked in school. This chasm between school assessment and real human interaction, these scholars argue, alienates students from their studies, thus making school even more irrelevant than in the past (and school irrelevancy was a big issue during my own high school education in the 1960s). Each of these considerations requires attention to the ways in which different cultures organize social practices and the means through which social practices involve communication, central concerns of a Vygotskian conception.

Unlike the fields of reading and writing, this new semiotic conception of literacy, at least as a focus of scholarly inquiry, does not have a long history to critique and consider. The work of many of multiliteracies' most celebrated advocates (e.g., the contributors to Cope & Kalantzis, 2000) is more theoretical than data-driven. This area is still under development and, while compelling in many ways, needs substantially more documentation in order for its claims to have empirical support. There is also a distinction between those who emphasize the value of "hand-made" nonverbal texts such as art, and the digital competencies that have become the darling of the multiliteracies movement, even as digital technologies are available primarily to the affluent end of the "digital divide" (Compaine, 2001) that advantages those able to afford the devices that provide access to these new worlds. There are thus several prongs of inquiry available in the field of semiotic conceptions of literacy that the field needs to take on if the advocates of multimodal composing are to translate their enthusiasm into robustly documented scholarship.

Vygotsky's logocentric orientation complicates the effort to ground a semiotic conception in his tradition. In his first work of scholarship, *The Psychology of Art*, while he does attend to theater and occasionally to sculpture, painting, dance, and song, he focuses largely on works of literature, particularly Shakespeare's *The Tragedy of Hamlet, Prince of Denmark* and fables by Russian authors

(Smagorinsky, 2011a). What enables this extension from speech to other sign systems is Wertsch's (1991) extrapolation from Vygotsky's attention to *word meaning* to *tool-mediated action*, which positions words as among the many psychological tools—albeit the “tool of tools”—in one's cultural tool kit for mediating thinking and experience. What makes this extension problematic is the question, If every psychological tool that leads to a social competency produces a form of literacy, what, then, is not a literacy tool? Again, there is much to be explored in this rich new vein of inquiry.

WHAT, THEN, IS LITERACY?

Ultimately, I find myself returning to Scribner and Cole's (1981) insights on the nature of literacy development, which they produced through their situated studies of comparative human cognition in Liberia. Cole (1996) historicizes his interest in cultural psychology by tracing this orientation to Greek historian Herodotus, who attempted to understand wars by traveling to societies in conflict and detailing their unique cultures and histories and thus their reasons for attempting to destroy one another's societies. (The conflicts between Christian and Muslim cultures in the 21st century would benefit from a similar undertaking.) Referencing antecedents who took up Herodotus's focus from ancient times through the present, Cole situates his work in the tradition of comparing the cognitive processes of people originating in different societies by examining the cultural practices through which they appropriate ways of thinking and being in the world.

Following his apprenticeship with Vygotsky's student and colleague A. R. Luria (see, e.g., Cole, Levitin, & Luria, 2006; Luria, 1979) in Moscow, Cole and his colleague Sylvia Scribner embarked on an expedition to study cultures that were relatively isolated from Western thought and traditions to understand how their experiences with literacy practices contributed to their patterns of cognition. In Liberia they found an opportunity to study the effects of literacy and formal schooling on the Vai people's thinking. This opportunity was available in the Vai's development of a culture-specific writing system used at home but not taught in school, enabling a study of literacy both in and out of school and, to a sufficient degree, in settings that were mutually independent of one another.

In their five-year ethnography, Scribner and Cole found that the Vai's different settings of literacy learning produced different ways of thinking, leading them to infer that literacy is primarily a cultural phenomenon rather than a cognitive one. School literacy enabled the sort of abstraction that served as Vygotsky's (1987) focus in distinguishing “scientific” or academic concepts from “spontaneous” or everyday concepts, while the Vai script served more local purposes less amenable to repurposing and reapplication in new situations. Their findings suggest the importance of not considering literacy to be a technical skill independent of the context of use, but rather a cultural tool imbued with ideology and employed toward particular social ends.

CHAPTER 5

As Frake (1983) notes, one of the investigative qualities that enabled Scribner and Cole to study people so different from themselves is that they “know how to listen to what the natives have to say” (p. 368) in a careful and sympathetic manner, one that allows them to approximate an emic stance in learning about cultural others. This quality reinforces the point I have been pursuing thus far: that studies that claim a dispassionate stance tend to be insensitive to cultural variation and are susceptible to taking deficit perspectives on those whose worldviews are not solicited for the appropriateness of the measurements given their cultural patterns of thinking.

Scribner and Cole (1981) conclude their study of the Vai people and their differential experiences with literacy in local and formal academic contexts by defining literacy as

a recurrent, goal-directed sequence of activities using a particular technology and particular systems of knowledge [It involves] socially developed and patterned ways of using technology and knowledge to accomplish tasks. . . . [Literacy consists of] a set of socially organized practices which make use of a symbol system and a technology for producing and disseminating it. Literacy is not simply knowing how to read and write a particular script but applying this knowledge for specific purposes in specific contexts of use. The nature of these practices, including, of course, their technological aspects, will determine the kinds of skills (“consequences”) associated with literacy. (p. 236)

Scribner and Cole’s (1981) definition orchestrates many of the ideas I have reviewed into a useful conception of literacy. The meaning of literacy is local and situated; as Kintgen et al. (1988) argue, “literacy must be defined in relation to a particular society or culture” (p. *xiv*). To Heath (1983), a culture’s organization of its social life suggests different purposes for literacy and different stances toward literate practices. The fundamentalist Christians in her study, for instance, came to regard the written word of the Bible as literal and unquestionable, resulting in difficulties in school when children were given ambiguous texts to read and discuss.

Scribner and Cole (1981) further show the importance of studying literacy practices outside the setting of school in order to capture the broad range of literacy practices available and how different sets of practices mediate consciousness toward socially serviceable ends. Just as the Vai developed a unique way of speaking and writing amongst themselves, people of all sorts—lawyers, ideological bloggers, academics, hip-hop practitioners—have specialized ways of talking and writing about their shared community-based issues.

Young people do as well. Understanding how they learn to think in their self-chosen literacy worlds seems central to teaching in ways that both attend to the frameworks they have developed outside school and in turn help bridge such literacies to the sorts of reading, writing, thinking, and engaging in other forms of

composition expected of them in school. Such relationships have been studied among a variety of youth cultures, including those based on race (e.g., for Latin@, see Moll, 2000; for African American, see Lee, 2007), gender (e.g., for girls, see Black, 2008; for boys, see Smith & Wilhelm, 2009), interests (e.g., see Gee, 2003, on video game communities), and other demographic profiles. The authors of these studies tend to support Scribner and Cole's (1981) conclusion that school and everyday thinking are different and that relying on school performance to assess one's cognitive development provides only a partial picture of literacy achievement, one that is often out of tune with students' most fluent and competent ways of transacting with texts.

Remarkably, Scribner and Cole's (1981) and Heath's (1983) ethnographic studies were conducted simultaneously without the authors' mutual knowledge of one another or their work. Both studies pioneered the movement toward understanding literacy in community settings, in both cases focusing on highly isolated cultures before technology enabled easy cross-cultural communication. Both have helped to shape studies that focus on literacy as multifaceted and not necessarily driven by formal academic priorities or practices. In spite of their enormous influence on cultural-historical approaches to understanding literacy, neither has made any headway in influencing the policy world and its emphasis on uniformity, standardization, and testing designed to make cross-cultural comparisons by using White middle-class norms as the means of measurement by which other groups inevitably appear to be in deficit.

While signing an "X" to represent a signature might have been acceptable for adults a century ago, in today's U. S. schools this ability would not suffice for a first grade student in ordinary school lessons. The degree to which a person is considered literate, then, is not static, but is a judgment based on the local standards that follow from the ways in which particular cultures construe the purpose of using texts for communication and expression. These local standards may thus include a value on nonverbal expression from sermons in stone to video games. In the remaining three chapters in this section, I go into greater detail on methodological matters that I see implicated in adopting a Vygotskian framework for literacy research, in the process continuing to outline what I understand Vygotsky's project to be and seeking for my own perspective to cohere in the process.

NOTES

¹ I use "images" as it is employed in considerations of literary elements: as referring to any or all of the five senses.

READING AS CULTURALLY MEDIATED, MEDIATING, AND MEANINGFUL ACTION

In discussions of readers and texts, it is common to refer to the importance of the text's meaning to the reader. Yet the idea that texts should be meaningful is rarely defined. Rather, it is assumed to be not only a property of a worthwhile reading experience, but a concept that all reading theorists and practitioners understand in more or less the same way. In this chapter, I would like to focus on the axiom itself; that is, my goal is to consider what it means to mean, using Vygotsky's insights in conjunction with more recent work to formulate my understanding of the act of reading as a mediated, mediating, and meaningful activity.

Defining *meaningful* turns out to be a precarious and often circular proposition. Merriam-Webster (1994-1996) defines *meaningful* as "full of meaning." *Meaning* is defined variously as "something that is meant," "the thing that is conveyed," and "a significant quality." *Mean* means "to serve or intend to convey, show, or indicate: signify." The best I can gather from these everyday definitions of meaningfulness is that when something has meaning, it stands for something else.

This notion of meaning does not quite get at the depths of consciousness suggested by references to meaningfulness by those who write about *textual meaning*. Bruner (1986), for instance—among the pioneering U. S. interpreters of Vygotsky and coiner of the term *scaffolding* in an early effort to make the notion of the ZPD tangible for readers of English—states that in a meaningful reading of literature, one engages in "world making" that is

constrained by the nature of the world version with which we begin the re-making. It is not a relativistic picnic. . . . In the end, it is the transaction of meaning by human beings, human beings armed with reason and buttressed by the faith that sense can be made and remade, that makes human culture. . . . Literature subjunctivizes, makes strange, renders the obvious less so, the unknowable less so as well, matters of value more open to reason and intuition. Literature, in this spirit, is an instrument of freedom, lightness, imagination, and yes, reason. It is our only hope against the long gray night. (pp. 158–159)

This endeavor is considerably more elaborate than is simply standing for something else. In this chapter I aim to propose what is involved when readers engage

CHAPTER 6

with texts in such a way as to produce these transactions and transformations. Fundamental to this process, I argue, is the reader's creation of new texts during the process of reading, which I referred to in Chapter 5 as a process of interevocation. This process of text production conceivably involves additional reflection through which the reader potentially produces further texts. The reader's construction of these new texts is the source of meaning in reading. These constructions, while idiosyncratic, are culturally mediated, locating meaning not only in the reader and text but in the cultural history that has preceded and conditioned both, in the social practices that provide the immediate environment of reading, in the power relationships inherent to social participation, and in the relational experiences that make up the reader's life narrative. I next detail the processes I am describing and illustrate them with examples from studies I have conducted on the meaning-making experiences of high school students in relation to their literary reading.

THEORETICAL FRAMEWORK FOR CONSIDERING MEANING

To help frame my inquiry, I draw primarily on the concepts and terminology of Vygotsky's semiotic conception of *words as signs and tools*. I use this notion to describe what a *text* is and how a reader constructs meaning through joint activity with the text and a host of contextual and experiential mediators. I rely further on the notion of *culture* as both the primogenitor of signs and tools and the product of sign and tool use. Culture, from this perspective, provides the basis for meaning, serving to mediate the development of what Vygotsky (1978) called *higher mental processes*. Higher mental processes are paradigmatic rather than universal; that is, they represent ways of comprehending and acting on the world that are appropriated through cultural practice, and they therefore embody cultural concepts of what and how things signify (Kress, 2000a).

Although I treat each of them separately in the sections that follow, it is impossible for any to exist independent of the others. Some of what follows may be redundant with explications from previous chapters. I have learned, however, that a degree of redundancy is helpful in grasping Vygotsky's complex theory of human development, and so reiterate and reillustrate some of his recurring themes and attendant terminology as a way to reinforce constructs introduced in other contexts.

Sign

I borrow Eco's (1985b) paraphrase of Peirce (1931-1958) as the basis for my understanding of a sign. To Eco, a sign is a "relation or referring back, where . . . something stands to somebody for something else in some respect or capacity" (p. 176). This notion appears quite simple, yet as the abundant field of semiotics suggests, it is instead quite complex. What the sign, or configuration of signs—

what I call a *text*—stands for resides at the heart of the notion of meaning, since a sign has different meanings for different readers. At the same time, a sign can mean nothing to a reader for whom the configuration has no codified cultural significance, in which case it is not a sign. Signs, in this conception, are not restricted to language but are, in Kress's (2000b) terms, *multimodal*; that is, they include "the full range of semiotic modes in use in a particular society" (p. 183; cf. Harste et al., 1984; Suhor, 1984; Whitin, 1996). I elaborate on this perspective in Chapter 8.

To give an example from an ongoing debate in the United States: The Confederate army battle flag flew for many years above the state capitol building of South Carolina and, following a protest movement and economic boycott, was moved to the capitol building grounds. The flag's arrangement of the St. Andrews cross and stars, in the view of many White natives of these states, is a symbol of veneration for Confederate Civil War veterans, as South Carolina Senator Glen McConnell explained in a July 26, 1999, *Nightline* television feature:

I see honor, courage, valor. I see the red, white, and blue and the blood of sacrifice that ran through that battle and the people that carried that flag. I don't see black and white. . . . People say it's an emblem of racism, it's an emblem of hate, it's shameful and all of this. How do they think we feel when it's the emblem of our ancestors? They hurt our feelings.

(<http://www.jessejacksonjr.org/issues/i07269968.html>)

This same flag was viewed quite differently by an unidentified Black South Carolinian interviewed for the *Nightline* program, who said, "When I see the flag I see oppression. I see segregation. I see slavery and all of the things that are a disadvantage to the Afro-American people." A second Black citizen echoed these remarks, saying, "It represented the worst in America. And most decent Americans don't want to see as a symbol the worst in America. We want to see the best in America."

For the purpose of contrast, I will add some hypothetical readers of the Confederate battle flag. One would be a resident of a remote Indonesian island who has no knowledge of the flag's significance in American history. This person might not read the flag as meaningful at all, might assign a purely astronomical meaning to its arrangement of stars, or might see it as a possible sail for a fishing boat. Other hypothetical readers would be the meteorologist or kite flier for whom the flag flying atop the state capitol might take on at least a temporary alternative meaning, that being as evidence of which way the wind is blowing.

When considering the meaning that any individual attributes to a text, it is important to note that the text is not interpreted alone, but in terms of the context in which it appears. My notion of context is necessarily relational, following from its Latin root. As I have reviewed in previous chapters, the word *text* derives from *texere*, meaning to weave; *context* comes from the Latin terms *contextus*, meaning connection of words or coherence, and *contextere*, meaning to weave together.

CHAPTER 6

In this sense, context is viewed as a relationship among people, artifacts, and their environments, which typically include multiple sets of overlapping goals, values, discourses, tools, and other residue of social life (Cole, 1996; Lave et al., 1984).

To some readers, the Confederate battle flag loses a degree of its emotional impact when removed from atop the capitol dome and placed in a new context, such as behind glass in a museum. The relational view of context is critical here, suggesting the importance of the kinds of relationships a person establishes both historically and immediately and how they affect the person's understanding of signs and texts. Senator McConnell and those for whom he speaks undoubtedly have ancestors to whom the flag indeed represented valor; some (e.g., Gee, 1990) would surely argue that McConnell is also attempting to authorize, conserve, and perpetuate the societal and political power that the flag has historically provided for him and his constituents.

On the other hand, other South Carolinians who shared McConnell's general cultural background supported the removal of the flag from the state capitol, some arguing for the more radical complete removal from the capitol grounds and others for the compromise position of relocating it to a ground-level display behind glass in order to indicate that it serves a historical rather than contemporary purpose. The presence of these multiple perspectives suggests both the likelihood that individuals participate in multiple sets of cultural practices, and the presence of *idiocultures* (Fine, 1987), the cultures-within-cultures in which practices, values, and goals differ in some degree from those that govern the cultural motive as a whole.

A written text too can take on different meanings depending on the context, as Fish (1980) revealed when a class of college students, upon entering a literature class and seeing a list of words left on the chalkboard from a previous class, assumed it must be a poem and interpreted it as such. I have chosen the example of the Confederate battle flag for my opening illustration because of its familiarity and clear diversion of interpretation. My purpose is not to assign a correct meaning to the flag¹ but to illustrate the ambiguity and indeterminacy of signs to readers, if not necessarily to authors. It is notable that each of the first two real readers of the Confederate battle flag I quoted believes that he has an authoritative interpretation of the sign of the flag. In 1999, however, the interpretation of the flag as a symbol of honor was the official meaning, at least as sanctioned by the government of South Carolina. That one group can institute a particular meaning for the flag illustrates the way in which dominant cultures have the power to define their version of reality as reality, thus establishing their values as authoritative and sovereign (Apple, 1979; Gee, 1990; Taxel, 1981; Williams, 1977) and as the framework for future relationships.

This notion that meaning can be sanctioned by those with the greatest cultural capital (Bourdieu, 1994) has implications for the ways in which I will eventually talk about the meaning of texts. In addition to being subjective, constructed, variable, and idiosyncratic, different readings and reading positions have material and discursive, social and cultural consequences for readers. Different kinds of

readings in specific settings provide a reader with kinds of capital that can be used along with other kinds of resources for political leverage and power over less knowledgeable readers, as well as speakers and other text users in the different social and institutional fields where readings are made to count. That is, different readings count differently with differential kinds of force and power for individual readers and for interpretive communities. This capital is not simply an acquisition or means of entrée but a protean aspect of social positioning and relationships, one that readers can bring to bear to produce a reading, itself invested with capital and contributing to people's power in ongoing relationships across the fields of schools, workplaces, civic life, and other settings in which reading provides advantage.

How a sign comes to mean is a function of how a reader is acculturated to read. This fact of acculturation is characteristic of all reading, whether of flags, words, or other texts. Indeed, the idea that characters on a page constitute words to be read is something that one is acculturated to realize and act upon. One belief that I will challenge is the notion that a text has a meaning of its own—the *meaning incarnate* referred to by Bruner (1986) or *autonomous meaning* refuted by Nystrand (1986)—independent of what readers as members of cultures and participants in relationships bring to it. I will argue that attributing meaning to the text alone simply assigns to the text an officially sanctioned meaning, often one so deeply presumed that other interpretations inevitably are dismissed as incorrect or irrelevant.

Text

A text is a configuration of signs. As my illustration of the text of the Confederate battle flag suggests, I regard reading as an act conducted in conjunction with texts of all kinds, regardless of sign system. And as the etymologies of text and context suggest, I regard text and context as interwoven, a relationship to which Witte (1992) would add *intertext*, a term identifying the historical connections among texts, and to which Floriani (1993) would add *intercontext*, a term identifying connections among recurring social practices, and to which I add *interevocation*, the association of images that readers make with the signs of the text. The act of reading further involves an act of *composition* (Smagorinsky, 1995a). My notion of composing a meaningful text is similar to the New London Group's (1996) concept of *design*, which involves any semiotic activity that consists of "a creative application and combination of conventions . . . that, in the process of Design, transforms at the same time it reproduces these conventions" (p. 74). Reading is thus a constructive act done in conjunction with mediating texts and the social-cultural-historical context in which reading takes place.

A text refers to any configuration of signs that provides a potential for meaning. A reader, while including those who read written texts, refers more broadly to anyone who tries to make sense of a configuration of signs. These signs would include

both deliberately inscribed efforts to orchestrate signs into a text (e.g., a painting) and those that are perceived as being inscribed as a text (e.g., constellations as read by ancient people). In this latter example, the text is presumed to have an author (a god) whose astronomical text is codified in ways that enabled ancient readers to read a meaning into it. Between scientifically observable (constellations) and intentionally inscribed (books) texts on the referential continuum are belief systems such as transcendentalism, in which physical world observations are regarded as appearances of reflections of the spirit, with “absolute truth” accessible through reason and intuition about the spiritual meaning of experience in the material world as revealed through the presumably codified arrangement of natural phenomena by a creator.

This point brings me to the assertion that texts, like the social-cultural-historical contexts in which they are produced and read, are codified and conventional (Rabinowitz, 1987; Rabinowitz & Smith, 1997). A text is produced as part of the ongoing development of a genre—which includes both text features and social practices—and is read by a reader who is acculturated to understand texts in codified and conventional ways (Bakhtin, 1981; Gee, 1990; Kress, 1990). This reliance on historically evolving conventions contributes to a text’s position in an intertext: the juxtaposition of texts in ways that allow for connection and continuity across readings through a relationship of codes and concepts (e.g., Bloome & Egan-Robertson, 1993; Fairclough, 2000; Hartman, 1992; Witte, 1992). When authors and readers invoke the same codes and thus are in tune with one another’s ways of understanding text, they have achieved what Nystrand (1986) calls *reciprocity*. As the illustration of constellations reveals, there can be a kind of reciprocity between readers and texts that is based on a false premise about the codification of texts.²

This spurious reciprocity can take place with readers of written texts such as Jonathan Swift’s “A Modest Proposal,”³ a pamphlet he distributed in which he argued that British society could solve two problems at once—a proliferation of babies born to the poor and a shortage of food—if the wealthy were to eat young children born into poverty. As Booth (1974) would argue, there is widespread consensus that the ironic and satiric codes of Swift’s essay should be read to supersede the argumentative codes. Readers who overlook the ironic and satiric codes of the text would read it as a genuine endorsement of neonatophagia, as did some readers at the time of the pamphlet’s publication.

The contexts of reading can invoke particular conventions for reading, what Durst (1999) calls the “ground rules” for participating appropriately. As I reviewed in Chapter 5, Marshall et al. (1995), for instance, have found that, in particular classrooms, teachers emphasize specific reading conventions and discourage others, invoking a traditional, teacher-directed *speech genre* (Bakhtin, 1986; Wertsch, 1991) for discussing literature. The conventions that they impose are grounded in particular traditions of understanding and talking about texts, with the conventions that accompany those traditions potentially modified as they are instantiated—a term that refers to the manner in which one imputes meaning to an abstraction by associating it with a familiar concrete example—with particular groups of readers

and discussants. The conventions that teachers endorse and reinforce take on the kind of official authority that interpretations of flags can achieve. They have official sanction and therefore render other ways of reading texts less authoritative and thus less likely to be adopted by novice readers or readers without the capital to vigorously invoke other conventions that might have authority in other settings (Fairclough, 1989, 1992; Gee, 1992).

Furthermore, like an ax murderer in a logging camp, some readers do not recognize the preferred or designated use of the tools at hand and can disrupt the official language of discussion by using them for different purposes. And so, in classrooms, idiosyncratic or unconventional readings and uses of language, such as those used for emotional purposes, are often dismissed as irrelevant to understanding a text's meaning. To those who assume that canonical works are written according to an innately superior set of codes, texts produced through other conventions—such as works by some minority writers—are viewed as inferior and not worthy of serious study (see Stotsky, 1999, for an endorsement of this view and Gates, 1988, and Lee, 2000, for a critique). If it is true that there are cultured (Lee, 1993) and gendered (Cherland, 1994; Luke, 1996; Rabinowitz, 1987; Walkerdine, 1986) ways of reading and producing texts, and that some of these practices are out of step with the established and authoritative ways of conceiving and considering texts in school, then school becomes a much more hospitable and rewarding experience for some groups than for others.

Tool

The next notion I take up is that of a tool. A tool is a means by which one acts on one's environment. In the words of Luria (1928), "instead of applying directly its natural function to the solution of a particular task, the child *puts between that function and the task a certain auxiliary means*. . . by the medium of which the child manages to perform the task" (p. 495; cited in Cole, 1996, p. 108; emphasis in original). Most readers will instantiate, upon hearing the word *tool*, such implements of handiwork as hammers and rakes. Vygotsky (1978, 1987) construed tools as *psychological* as well, particularly speech; and others have used Wertsch's (1991) expansion of this emphasis to a *cultural tool kit* to recognize nonverbal mediators such as art (e.g., drawing, dance, and drama) and design (e.g., the design of home interiors, whole residences, and horse ranches) as I have done in my own work (O'Donnell-Allen & Smagorinsky, 1999; Smagorinsky, 1995a, 1997a, 1997b, 1999; Smagorinsky, Anglin, & O'Donnell-Allen, in press; Smagorinsky, Cameron, & O'Donnell-Allen, 2007; Smagorinsky, Cook, & Reed, 2005; Smagorinsky & Coppock, 1994, 1995a, 1995b; Smagorinsky & O'Donnell-Allen, 1998a, 1998b, 2000; Smagorinsky, Pettis, & Reed, 2004; Smagorinsky, Zoss, & O'Donnell-Allen, 2005; Smagorinsky, Zoss, & Reed, 2006; Zoss, Smagorinsky, & O'Donnell-Allen, 2007). Just as the same sign may represent different meanings to

CHAPTER 6

different readers or no meaning at all to other readers, the same implement may serve as a different tool for different users, no tool at all for other users, or a different tool for the same user in different situations, depending on how (or if at all) it is conceptualized. The manner in which it is conceptualized is a function of culture, the next construct I will review in the context of reading.

Culture

By culture I refer to the recurring social practices and their artifacts that give order, purpose, and continuity to social life. The notion of having a reasonably common purpose suggests that culture is *teleological* (Wertsch, 2000); that is, culture is motivated by movement toward a shared optimal outcome or ideal destination. This ideal embodies the mutual values of the community in question. Movement toward that ideal is enabled and constrained by recurring social practices that are facilitated by tools that produce the artifacts, including texts, that provide a reasonably shared meaning for life within the culture. As the Confederate battle flag issue illustrates, societies often consist of people of different and frequently conflicting cultures whose experiences and social practices result in cultural icons being interpreted in different ways.

People are, in this sense, products of culture. *I do not use this phrase in a fatalistic way that deprives individuals within a culture of agency.* Rather, I use it to describe general social practices that become deeply ingrained such that they channel action toward particular ends, *without doing so deterministically.* I emphasize these points because poststructuralists at times link Marxist perspectives to a structuralist assumption of determinism, which I do not find available in Vygotsky's work (see Bottomore, Harris, Kiernan, & Miliband, 1983, for a review of this issue). At times, a culture's more experienced members will instruct its novices in ways that are didactic and deliberate, such as the way in which a community of faith provides an explicit account of its beliefs about history and destiny to its youngsters and converts. At other times, the means of mediation are subtle to the point of becoming invisible through *prolepsis*.

For my purposes as an observer of schools, and especially English classes, *prolepsis* works in service of the traditional culture of school in which canonical texts make up the curriculum and the analytical written text is prized as the highest form of interpretation (Applebee, 1993). These cultural practices, facilitated by a limited tool kit of mediational means used to produce a limited set of textual forms, restrict students in terms of the meaning available for them to construct. Furthermore, because the cultural practices drawn on most resemble those found in the homes of middle-class students, school success is less likely for those whose home cultures provide them with a different tool kit, a different set of goals for learning, and different notions of what counts as an appropriate text (Cazden, 1988; Heath, 1983; Lee, 1993; Moll & Greenberg, 1990).

THE TRANSACTIONAL ZONE OF MEANING CONSTRUCTION

I next employ these semiotic concepts to explore the notion of meaning in reading linguistic texts. One caveat to my argument is that the database that supports it is drawn from studies of high school students reading the genre known as literature, that is, texts codified to imply rather than explicate a meaning. The limitations of my research focus might call into question the broad applicability of my conception of reading to texts designed to explicate a meaning, such as the book I am now writing. To clarify my own view of how broadly one could generalize from my argument, I would say that it ought to apply to *the reading of any text for which a reader generates a new text*—i.e., the process of interevocation that I have described previously—regardless of genre. For some readers, this rule might apply primarily to literature; for others, it might include the most perspicuous of technical reports.

I would like to start with the premise that meaning emerges through a reader's joint activity with mediating tools and signs, among them the signs of a text. I am not entirely distinguishing readers from texts. In one sense, a human reader and a text such as a book are distinct and constituted from quite different elements. It is not, however, physical people and physical texts that I am talking about, but rather meaning as a function of *distributed cognitions* in which "people . . . think in conjunction or partnership with others and with the help of culturally provided tools and implements," including texts (Salomon, 1993, p. *xiii*; emphasis in original).

In this conception, textual signs extend beyond the cover of a book, just as the mind extends beyond the skin. During a reading transaction, reader and text conjoin in an experiential space (Faust, 2000) that is culturally mediated. I view this space not as a sealed area connecting two discrete entities but as a dynamic, permeable zone whose instrumentality is a function of culture. The experience that takes place in the space I am describing is thus a joint accomplishment, not just of readers and texts but of the cultural practices through which both have been produced and through which the two become engaged. In this sense, meaning is a function of work conducted *among readers and texts* rather than *between reader and text*. This distinction assumes that no text or reader comes to the experience alone; rather, reading is fundamentally relational and *dialogic*, i.e., in dialogue with cultural predecessors whose practices take place within the "great historical destinies of genres" (Bakhtin, 1981, p. 259). Furthermore, the text becomes situated among a host of related mediational means through which its meaning potential may be realized: speech genres, social transactions with other readers, cultural schemata, and so on. The text is thus the *focal but not sole tool* through which meaning emerges for a reader.

Among the critical contexts for readers is their storehouse of prior narratives from personal experience, including previous readings. Reading is thus "emplotted" (Ricoeur, 1983), that is, situated in dialogue with and in extension of other, previous readings and the evocations that readers generate in relation to these readings.

Wertsch (1999) has documented how text production is emplotted in terms of its *hidden dialogicality* (Bakhtin, 1984) among narrative texts: Each text is produced as a conversational turn in dialogue with prior and anticipated future texts regardless of whether or not they are acknowledged. I would argue that readings are similarly emplotted, serving as what Ricoeur calls a *configurational act* enabling readers to bring together diverse texts into a complex whole.

Different readings of the same text thus vary, not just from reader to reader but from reading to reading by the same reader, depending on how each reading is emplotted and configured within the reader's unfolding and accumulating experiences and the images, or evocations, that the reader generates to represent these experiences. In this sense, evocations represent the sort of meta-experience, or experience of experience, that I have associated with Vygotsky's use of the construct of *perezhivanie* (Smagorinsky, 2011a; Smagorinsky & Daigle, 2011). From a pedagogical standpoint, it behooves educators to understand the narratives within which students emplot new readings so as to make better sense of their interpretations and help them gain access to new narratives that will provide them with additional mediators through which to experience new texts.

The notion of reading I have briefly outlined here departs from conceptions of reading in which meaning inheres autonomously in the text itself, with the reader's role being to decipher that embedded meaning. This dubious notion of textual autonomy drives assumptions behind standardized reading tests and the idea that test items represent problem isomorphs across all readers (see Chapter 5). This is not to say that texts are not inscribed with meaning or that they do not preclude some readings or suggest relatively narrow possibilities. I am hoping, for instance, that readers of the text I am now writing do not conclude that it is about the mating habits of the spotted owl or, more topically, about the location of meaning in the text itself. Indeed, among my goals as a writer is to preclude such readings by writing carefully within conventions anticipated by the readers I envision and with whom I strive to be *in tune* (Nystrand, 1986). My choice of words, codes, and conventions is designed to inscribe meaning into the text, although it is also possible that I am inscribing meanings that I am not aware of, as writers do when using masculine pronouns and other gendered terms when referring to people generally, or specify a gender for their asexual deity of choice.

My premise is that, as a writer, I produce a text that provides a meaning potential realized by different readers in different ways. Texts are thus not autonomous, i.e., inscribed with a single unambiguous meaning, as argued by Olson (1977). Rather, they only take on meaning through culturally conditional, socially conventionalized interpretive acts by readers (Nystrand, 1986). In addition to whatever deciphering or decoding might be required to understand what I am trying to inscribe in the text I am presently writing, readers bring to the experience a host of attributes and conditions that will affect how they engage with this inscription as they *encode* it through constructive, instantiative activity in the transactional zone. This engagement with textual codes takes place both

with individual words and with the configuration of conventions that make up genres (Bakhtin, 1986).

The book I am writing at the moment, for instance, is codified in ways that suggest that I am producing an argument and not a work of fiction, a distinction that should invoke a particular approach to reading by those who understand these codes and know how to adjust their reading appropriately (Rabinowitz, 1987). Unlike Jonathan Swift in “A Modest Proposal,” I am not using argumentative conventions satirically to make points diametrically opposed to those that I literally state, and I depend on my readers’ conditional responses to direct their reading according to my intentions. I use *conditional response* rather than the incorrectly translated *conditioned response* to account for Pavlov’s finding that people and animals—most famously, dogs—respond to stimuli in relation to the conditions that have surrounded their prior responses to similar stimuli. According to the author of the uncredited forward to Volume 2 of Vygotsky’s *Collected Works*,

In the interest of contributing to the formation of a coherent English terminology for Russian psychological texts, this series has joined in the use of the term *conditional reflex* for the older *conditioned reflex*, both in Volume 1 and in the present volume. By the time Watson adopted the Pavlovian formulation as a cornerstone for behaviorist psychology in the 1910s, Pavlov’s *usloynyi* had been mis-translated “conditioned” (as a Russian passive past participle), and the whole process was designated as “conditioning” (see Boring, 1950). At mid-century, however, Osgood (1953) suggested that “Pavlov meant that the occurrence of the reflex to a novel cue was literally *conditional* [sic] upon certain operations” and observed that “in contemporary American psychology [‘conditioned’ had] become practically synonymous with ‘learned.’” (in the unattributed Foreword to Vygotsky, 1993, pp. vii–viii; emphasis in original; [sic] in original)

My use of *readers’ conditional responses* is a play on two phrases. First, it draws on this more accurate account of Pavlov’s formulation, one in which the response is less determined (as suggested by the mistranslation of “conditioned response”) and more channeled by historical, cultural, and social conditions over time. Second, it draws on the 20th century U. S. term *reader response*, which in accounts such as that by Probst (1988) are highly personal, even to the point of driving out any external influences, a questionable claim to which I will return later. My use of this term attempts to make the common notion of reader response more grounded in social-cultural-historical theory while also allowing for the idiosyncratic potential of its more widespread, if acultural, meaning for teachers of literature.

To return to my previous statement that readers and texts are products of culture: Argumentation is a cultural construct that is deliberately codified and conventional, requiring my text to work within those codes if it is to be recognized and read as such. Readers whose life experiences have exposed them to

CHAPTER 6

argumentation or whose schooling has given them formal knowledge of argumentative conventions will use their knowledge to inform their reading, to engage in the social practice of argumentation during their transaction with the text. This is not to say that they will agree with my argument, only to recognize that I am arguing and not producing a satire. It is also important to note that multiple codes may coexist in the same text. Swift's "A Modest Proposal," for instance, employs the codes of argumentation but also those of irony. Readers who recognize the argumentative codes but not the ironic will see a single rather than double entendre in the essay.

At times, the use of double coding is deliberately embedded so that only knowledgeable readers can see both meanings. For instance, American slaves employed multiple coding systems in spirituals, quilts, and other seemingly mundane texts for conveying messages and instructions on escape tactics and routes along the Underground Railroad, the unmarked route by which they escaped their Southern bondage and travelled to freedom in the North. One quilt pattern known as the "trip around the world [was] used to indicate a path around a mountain instead of over it. . . . if anyone—overseer, master, or mistress—overheard the slaves talking about taking a trip around the world, they would have dismissed it as gibberish" (Tobin & Dobard, 1999, p. 84). Unlike Jonathan Swift, who (I assume) assumed the ability of his readers to recognize the double entendre, the slaves designed their quilts to *exclude* particular readings and readers through the embedding of codes grounded in the African cultures brought to the continent by their ancestors and not known to the slaveholders they planned to escape.

The shared invocation of textual conventions enables readers and texts to meet in the transactional zone of meaning construction. As the examples of "A Modest Proposal" and the Underground Railroad signs reveal, readers who lack acculturation to reading codes will not have access to the meaning potential that they are inscribed to suggest. One important point about the construct of a transactional zone is that the meaning potential of a text can be read quite differently by people who read codes according to the same set of conventions. Take, for instance, the illustration of the Confederate battle flag and the different readings provided by the Black and White South Carolinians interviewed. All are meeting the text in the transactional zone because they are recognizing the same sets of codes; all see the flag as a symbol of the Confederate cause in the Civil War. The fact that some see this cause as glorious and others as shameful is due to factors of perspective, evocation, and emplotment rather than the recognition of different codes.

The transactional zone would not be in effect for readers of "A Modest Proposal" who either purchase and devour a baby born into poverty or believe that Swift thinks they ought to do so. Such readers only recognize the argumentative codes and thus accept Swift's claim that "a young healthy child well nursed is at a year old a most delicious, nourishing, and wholesome food, whether stewed,

roasted, baked, or boiled; and I make no doubt that it will equally serve in a fricassee or a ragout.”

The transactional zone is also available through the kind of reading known as *deconstruction*, whose purpose is to reveal the assumptions behind a text, often for critical purposes. Cherryholmes (1988) describes the practice as follows:

In a Foucauldian genre, criticism produces histories and politics of the present, wherein texts and discourse-practices are the effects of the exercise of power. In a Derridean deconstruction, criticism exposes silences and gaps between that which is valued and disvalued, traces the sedimentation of meanings, and documents contradictions and ambiguities within texts and discourse-practices. (p. 160)

The reader’s situation within networks of power—and his or her experiences in the midst of competing centers of gravity that bring to bear different forms of capital on a text—produces a reading (which itself is a form of capital), even if that reading might suggest meanings unanticipated and unintended by the author (see, e.g., Tyson, 1999). During his presidential campaign in 2008, for example, Barack Obama responded to a question posed by female reporter Peggy Agar about the plight of American autoworkers by saying, “Hold on a second, sweetie. We’ll hold a press avail,” a reference to a structured media question and answer session. His use of “sweetie” was taken by critics, particularly supporters of his opponent Hilary Rodham Clinton, to indicate a patronizing and sexist orientation toward women, an impression he surely did not intend during an election campaign.

There are consequences for unschooled readers who do not recognize textual codes. This lack of recognition and understanding can occur with both words (i.e., sound-letter correspondence) and genres (i.e., whole-text conventions). I would argue that, without knowledge of conventions governing both, meeting a text in the transactional zone is not likely. Some (e.g., Delpit, 1995; Lee, 1993) have argued that explicit instruction in textual codes is necessary in order for readers from outside society’s mainstream to succeed in school. Whether one believes in this approach or the immersion methods of whole language that eschew explicit instruction in how to read (e.g., Goodman & Goodman, 1990), I would argue that codified resonance between readers and texts is essential to the potential for establishing a transactional zone.

ACULTURAL ACCOUNTS OF MEANING

My view of reading as inherently cultural is at odds with conceptions of reading that guide much current research, practice, and policy (see my critique of articles published in *Educational Researcher* in Chapter 5). Many views of reading focus primarily on readers and texts, irrespective of the cultural and contextual factors that I argue are central to a view of reading grounded in Vygotskian cultural semiotics.

CHAPTER 6

Much of the highly influential reading research of the 1980s (see, e.g., Anderson, Hiebert, Wilkinson, & Scott, 1985) was based on time-constrained readings of abbreviated passages, with the setting and task ruling out the kinds of discussion-mediated, recursive, deliberative, constructive readings that more typically take place among people whose reading does not serve the purpose of measuring comprehension. Such assessments, like those applied to children in ways that now purportedly measure both their own and their teachers' ability, assume that the problems used in the measurements are isomorphic across populations, a belief that as I reviewed in Chapter 5 has been debunked by Newman et al. (1989).

More recently, the conceptions of reading claimed as having scientific validity in the "reading wars" (see Allington & Woodside-Jiron, 1999) are based on research that similarly is conducted in isolated settings under the assumption that the test items are isomorphic. In these conceptions of reading, the text is presumed to have a particular meaning that the reader must decipher. Failure to determine the text's official meaning results in an assessment of poor reading skills. As I reviewed in Chapter 4 when relating Andrea Lakly's decision to emphasize what she believed to be incorrect answers because the test certified them as correct, even skillful readers—and perhaps *especially* skillful readers—see greater ambiguity in what constitutes a correct response than is often assumed by testmakers.

The text, regardless of its codification or interest to the reader, is believed to serve as a sample of all texts in measuring comprehension in such forms of assessment. The reading is presumed to be representative of all of the reader's readings, including further readings of the same text perhaps mediated by discussion, reflection, research, inquiry, and other efforts at engaging with the signs of the text—all surely actions that successful readers take when reading difficult texts for their own purposes. Finally, the text is assumed to have static properties and meaning, and that student readers of the texts as test items will read them in the same manner as the test developers such that the "correct" answers will be available for assessment. As the illustration of Rakmat in Luria's (1976) research that I critique in Chapter 3 suggests, however, test developers and test takers do not necessarily read test items in identical ways or see the same answers as unambiguously correct.

The notion that a text has an authoritative, official meaning underlies standardized tests of verbal aptitude and reading comprehension, which assume that there are questions most worth asking and answers most worth providing, all of which serve to measure a reader's ability. This assumption prevails in the commercial literature anthologies that are ubiquitous in secondary schools, which Applebee (1993) has found to discourage open-ended and divergent thinking about how meaning might emerge through reading literature and instead to position particular critical readings as authoritative, often providing such readings in the margins of the teacher's manual to guide instruction.

Even those who take a more constructivist perspective have argued that reading, including the reading of literature, is solely a function of a reader's transaction with a

text. In such approaches, culture is not viewed as a factor in the way a reader reads. Rather, in “reader response” approaches I reviewed when offering the alternative of a conditional reader’s response, the notion of a reading transaction is reduced to what takes place when a text comes alive in the mind of an active reader, primarily through the reader’s instantiation of personal experience in response to the words of the text. Probst (1988) goes so far as to argue that readers should resist culture in order to provide the most personal reading possible. I will argue, in contrast, that it is impossible to become acultural as a reader or producer of texts, even as the belief that texts are autonomous and readers are acultural persists in dominant approaches to assessing reading, in which problem isomorphs are presumed to be equally available to all readers. Rather, one’s notion of meaning emerges through participation in cultural practices. As Moll (2000) has argued, it is inevitable that we live culturally, to which I would add that it is inevitable that we read culturally.

A CULTURAL ACCOUNT OF MEANING

I next outline what I mean by meaning as necessarily situated in and mediated by culture, particularly in terms of constructing meaning with texts. I include attention to the different zones of meaning, the dialogic role of composing during a reading transaction, the necessity of culturally constructed subjectivity in meaning construction, the role of intertextuality and intercontextuality in the construction of meaning, and the depths and dynamics of context in readers’ engagement with texts. These factors, while treated separately, are deeply interwoven. My presentation is therefore deliberately recursive and redundant, cycling back frequently to discuss how the constructs are related.

Zones of Meaning

In this section, I discuss what Vygotsky refers to as zones of meaning. The discussion is potentially confusing because of the ways in which Vygotsky’s Russian terms have been translated. Vygotsky’s (1934) *Myshlenie i rech’: Psikhologicheskie issledovaniya* has been translated three times, twice as *Thought and Language* (1962, 1986) and once as *Thinking and Speech* (1987). All three versions have problematically translated two of Vygotsky’s key terms. The Russian term *smysl* has been translated as *sense* (i.e., unarticulated inner speech), while the term *znachenie* has been translated as *meaning* (i.e., the articulation of thought through a sign system such as words). Vygotsky, however, viewed both *smysl* and *znachenie* as constituents of the meaningful whole. I next explain each of these two zones of meaning in greater detail.

Smysl is the set of images and other sorts of associations that one makes with a sign such as a word in the area of consciousness Vygotsky (1987) called *inner speech*: the abbreviated syntax and stream-of-consciousness properties of unarticulated, inchoate thought. *Smysl* corresponds to what Rosenblatt (1978) refers to as the initial zone of

meaning in a reader's *evocation*, or what Gallas (2001) refers to as *imagination*. Rosenblatt describes this experience as

a penumbra of "memories" of what has preceded, ready to be activated by what follows, and providing the context from which further meaning will be derived. Awareness—more or less explicit—of repetitions, echoes, resonances, repercussions, linkages, cumulative effects, contrasts, or surprises is the mnemonic matrix for the structuring of emotion, idea, situation, character, plot—in short, for the evocation of a work of art. (pp. 57–58)

Smysl is the thinking that takes place prior to or concurrent with articulation into coherence. It is, to use Vygotsky's (1987) metaphor, the storm cloud of thought that produces the shower of words. One great limitation of the concept of *smysl* is that it cannot be empirically demonstrated, only inferred. Vygotsky's formulation of inner speech came from his observations of egocentric speech in young children, which he theorized became appropriated from cultural exchanges by individuals to provide not only a vocabulary but a way of orchestrating speech into a worldview, a framework for understanding experience. Once speech (or another tool) is articulated and thus observable, it appears in the zone of meaning that is the shower of words (or other signs) that Vygotsky calls *znachenie*. *Znachenie*, then, is the zone of meaning available in *represented form*, corresponding to the notion of a *sign*, regardless of modality.

Because these two zones compose a meaningful whole, referring to *znachenie* as "meaning" can be misleading. I retain the translation of *sense* for *smysl*: "the aggregate of all the psychological facts that arise in our consciousness as the result of the word. Sense is a dynamic, fluid, and complex formation which has several zones that vary in their stability" (Vygotsky, 1987, p. 275). For *znachenie*, I use *articulation*:

It is the most stable, unified, and precise of these zones. In different contexts, a word's sense changes. In contrast, [articulation] is a comparatively fixed and stable point, one that remains constant with all the exchanges of the word's sense that are associated with its use in various contexts. (p. 275)

A reader's association of meaning with a text—and here I refer to the whole of meaning comprising all of its zones—reveals something about the text itself but also serves as residue of the cultural constructs that are appropriated to provide the reader's frameworks for thinking (Tulviste, 1991). Any concept—and, consequently, any construction of meaning—is thus necessarily located first in culture and second as appropriated by the individual. And because the mind extends beyond the skin (Wertsch, 1991) to include the tools of mediation through which the individual then acts on the environment, the mind of the individual, however distributed, in turn contributes to the evolving culture of the setting (Smagorinsky, 1995b). Among these mediators are texts themselves, transactions with which can contribute to the worldviews of members of a culture. When these texts presume particular relationships,

social hierarchies, and competence levels—such as the masculine orientation of many sacred religious texts—they can inscribe in a society assumptions about the location of authority and power (Luke, 1988; Rabinowitz, 1987).

Concepts and meaning thus have cultural origins. It is quite possible for individuals to resist these cultural conceptions. I would argue, however, that resisting one set of cultural constructs relies on precepts that are appropriated from other cultural constructs. And so, while any individual has the capacity to resist and defy the worldview of any culture, it is not possible to think and act independent of culture; it is not possible to live aculturally (Cole, 1996). From this perspective, texts are composed of signs that themselves are inscribed and codified as cultural artifacts and are read by people whose ways of encoding are conditioned by participation in cultural practice. The transactional zone is available when readers have been acculturated to recognize the codes by which the texts are produced. This is not to say that all readings will subsequently be the same or that texts may signify in only one way, only to say that readers and texts share a cultural cognizance.

The Mediation of Sense into Articulation

Sense is mediated into an articulation through the use of a psychological tool, often speech, which can serve “as a tool for exploring a subject” and help “generate new ideas ‘at the point of utterance’” (Applebee, 1981, p. 100; cf. Langer & Applebee, 1987). I next illustrate this process with research conducted in an alternative school for recovering substance abusers (for details of the research, see Smagorinsky, 1995a, 1997a, 1999; Smagorinsky & Coppock, 1994, 1995a, 1995b). We studied the composing processes of students who produced artistic interpretations of William Carlos Williams’s short story “The Use of Force.”⁴

The story concerns a doctor who narrates an account of a house call he makes during a diphtheria epidemic in order to extract a throat culture from a young girl who has displayed symptoms of the illness. The girl battles him savagely and hysterically to prevent him from examining her throat, and her parents try to help the doctor by holding her down and shaming her into complying. During the course of the struggle, the doctor develops contempt for the parents and passion toward the girl. Against his rational judgment, the doctor becomes lost in “a blind fury” to attack and subdue the girl. In “a final unreasoning assault” he overpowers her and discovers her “secret” of “tonsils covered with membrane.” The story ends with a final act of fury in which the girl attacks the doctor “while tears of defeat [blind] her eyes.”

One of the students we studied, Dexter, drew a picture representing the relationship between the doctor and the girl (see [Figure 2](#)). Through a stimulated recall interview that followed his drawing—i.e., an interview based on a video recorded of him as he drew his interpretation that sought to reconstruct his process of composition—he revealed the transformative effect of his process of composing on the

CHAPTER 6

way he thought about the story. Rather than having a fully formed picture of the characters in his head prior to drawing, Dexter said that “at the end, I understood what I was doing more than I did when I began the drawing. . . . I got more involved in the picture as I did it.” In his initial reading, Dexter simply tried to follow the action and then eventually began “thinking about something during the story . . . something difficult” that helped get him involved in his reading. These “difficult” yet unarticulated problems that he thought about suggest that they occurred at the level of sense, which he then had the opportunity to develop into an articulation through the psychological tool of drawing.



Figure 2: Dexter's interpretive drawing

When he began drawing, he was uncertain about how he would depict the characters, knowing only that the relationship between the girl and the doctor would involve shame and control. Dexter related that the meaning of the drawing changed as the picture developed. For instance, when he started his drawing, Dexter had not been certain what the threatening figure would represent.

Dexter: I wasn't really sure if it was him going to be the doctor or not until the end of the story, I mean, until the end of the drawing, because I was thinking, well, it could be this person that she, that she has imaged in her mind and uh—or this could be an analogy of diphtheria, but then I said it doesn't matter. It's just a doctor. It was going through her mind, [inaudible]

but I liked to read. The first time I'd read the doctor; the second, the analogy. It's just through that one story.

Q: So you mean, even after you drew the face and everything, it wasn't the doctor yet?

Dexter: Uh-huh. I mean, it could have been a lot of things. It depends on your viewpoint of the picture, but what I was thinking is—it was the doctor, and then it was an analogy of the whole attitude of the story, and then it was the, her parents' attitude, or the parents, especially her parents.

For Dexter, the story took on meaning as he developed his articulation. Moreover, he continually produced provisional images—that is, articulations of his sense of the characters' relationships and their signification to him—on his drawing, which in turn enabled him to reflect and compose further. His process of meaning making, then, involved exploratory efforts to represent his sense of the story that resulted in a tentative evocational articulation, to which he assigned different meanings as his thinking about the story progressed during his continued efforts to depict it and reflect on the provisional texts he produced.

I previously made the point that psychological tools are themselves subject to concentrically nested tool mediation. The various interpretations produced by the alternative school students illustrate this point well. The alternative school facility provided a local culture in which therapy for recovery was of primary importance. A successful student was one who advanced through a modified 12-step rehabilitation program while succeeding in course work and abiding by the institution's rules. The emphasis on therapy opened up the students' available tools for succeeding in course work. In addition, the school had only two classroom teachers, resulting in opportunities for cross-genre, cross-disciplinary, multimedia performance. Interpreting literature through art was thus legitimized in ways not typically allowed in mainstream schools.

The alternative school setting illustrates the ways in which the historical grounding for reading provides a sense of what constitutes an appropriate reading of a particular text in a specific context. Bloome and Egan-Robertson (1993) stressed that “the social construction of intertextuality occurs within a cultural ideology that influences which texts may be juxtaposed and how those texts might be juxtaposed, by whom, where, and when” (p. 330). In other words, cultural values sanction the juxtaposition of some texts but not others. Schools, for instance, do not typically value an artistic text as an appropriate interpretive representation to emerge from a student's engagement with literature (Applebee, 1993). The *orders of discourse* described by the New London Group (1996; Fairclough, 2000) are not automatically importable to new situations but depend on socially situated values and constraints.

Furthermore, the students themselves participated in a youth and drug culture in which rock music played an important role, a value that was appreciated by the

CHAPTER 6

teacher, John Coppock, who came from an artistic family that included musicians and dancers. John was also theoretically aligned with Gardner's (1983) theory of multiple intelligences (see Coppock, 1999). The mediational avenues through which students produced their interpretations of "The Use of Force," then, were channeled by the cultural constraints and affordances provided by the alternative school and this classroom, particularly with regard to the teacher's decision to allow the students to contribute to the classroom culture. None of this channeling or constraining is at all fatalistic; rather, it provides contours that guide action without determining it.

Moreover, each student brought a vast and complex history of tool use that affected individual choices of which interpretive mode to use. Dexter, for instance, had had a severe hearing problem as a child, causing him to communicate frequently through drawing (e.g., drawing a cereal box to say what he wanted for breakfast). While biological in origin, his hearing problem created a culture within his home that legitimized drawing as a mode of expression. Vygotsky's (1993) work in "defectology" suggests the importance of adaptation by creating new pathways for development when one's body does not provide the channels that evolution has biologically produced in humans. Rather, then, than deaf people being provided with amplified hearing, he argues that alternative means, such as Dexter's use of drawing, be encouraged and appreciated. Tool use, then, while mediational, is also culturally mediated and adapted to specific biological and cultural conditions.

As illustrated by Dexter's encoding of the story with personal meaning and composition of an idiosyncratic interpretive text, a part of his own history of relationships was played out in his drawing process and product. Indeed, his inscription of the threatening figure with several different associations in different iterations shows the ways in which these personal relationships contribute to the relationship he develops with the text when he engaged with it in the transactional zone as he represented his meta-experiences graphically through his evocational representation of the figure.

THE COMPOSING PROCESS OF READERS

Dexter's process of composition illustrates the ways in which sense is mediated into an articulation through a psychological tool, with the resulting text serving as a sign from which further sense is generated. I next develop this idea with a second set of readers from the same classroom, returning to Rosenblatt's (1978) construct of the evocation to elaborate on the process. Rosenblatt distinguishes her notion of an evocation from conceptions of reading that locate meaning primarily in texts presumed to be autonomous and isomorphic to readers. She stresses instead "the lived-through process of building up the work under the guidance of the text." She continues,

The tendency is to speak of interpretation as the construing of the meaning of a text. This [tendency] conceals the nature of the reader's activity in relation to the text: he responds to the verbal signs and construes or organizes *his responses*[,] which is for him "the work." This, we have seen, is a process in time. The reader ultimately crystallizes his sense of the work; he may seek to recall it or to relive different parts of it. . . . All of this [constructive work] can be designated as the evocation, and *this is what the reader interprets*. Interpretation involves primarily an effort to describe in some way the nature of the lived-through evocation of the work. (pp. 69–70; emphasis in original)

To Rosenblatt (1978), what readers interpret—what serve as the basis for meaning—are their associations with the text, rather than the text itself (cf. Enciso, 1992). As described here, her notion of the evocation includes both zones of meaning elaborated by Vygotsky (1987): the lived-through process of association (sense) and the crystallization of those associations into a response (articulation), which I regard as a provisional text. The evocation as a codified, intertextual experience is a critical event in the transactional zone I have described.

In this conception, what readers do is compose a text of their own in the transactional zone. This composition, this new text, is what becomes meaningful. This new text is always provisional and subject to change. To return to the example of the Confederate battle flag: The White South Carolinians quoted were describing their evocations of the flag (honor and valor, oppression and slavery) rather than the flag itself. I have already illustrated this phenomenon in Dexter's evolving interpretation of the graphic image that he produced in response to the events of "The Use of Force," in which the figure was "the doctor and then it was an analogy of the whole attitude of the story, and then it was the, her parents' attitude, or the parents, especially her parents."

The student texts I describe throughout this chapter are deliberate, formal texts that solidify their sense into a fixed representation, their articulated meaning for the story in relation to their experiences as enabled through the social context of their classrooms. The completion of the image for school purposes, however, does not ossify the text's meaning. Rather, the material texts produced serve as signs from which new sense may emerge with further reflection; their materiality only implies finality. Instead, they are provisional texts that may be further revised, if not tangibly then psychologically. The infinite potential of this process is related to the notion of *unlimited semiosis* described by Peirce (1931-1958) in his triadic formulation of signification (cf. Witte, 1992). The same process, I argue, is available for readers who generate sense in response to reading that is articulated into a text, whether mental or material. The richness of textual meaning, therefore, results from the generative quality of a transaction in producing new associations that, once provisionally articulated as a text, produce new iterations of sense and articulation.

CHAPTER 6

I illustrate this process with the artistic interpretation of Shakespeare's *Hamlet* produced by a small group of students in the high school English class of Cindy O'Donnell-Allen (for details of this research, see O'Donnell-Allen & Smagorinsky, 1999; Smagorinsky & O'Donnell-Allen, 1998a, 1998b, 2000). Students were assigned the task of collaboratively constructing a *body biography*, which is a life-sized human outline that the students fill with images and words that represent their understanding of a particular character. Like other groups we studied who interpreted other characters, the group that interpreted Laertes (see [Figure 3](#)) discussed and interpreted their character through a process that included the following sequence:

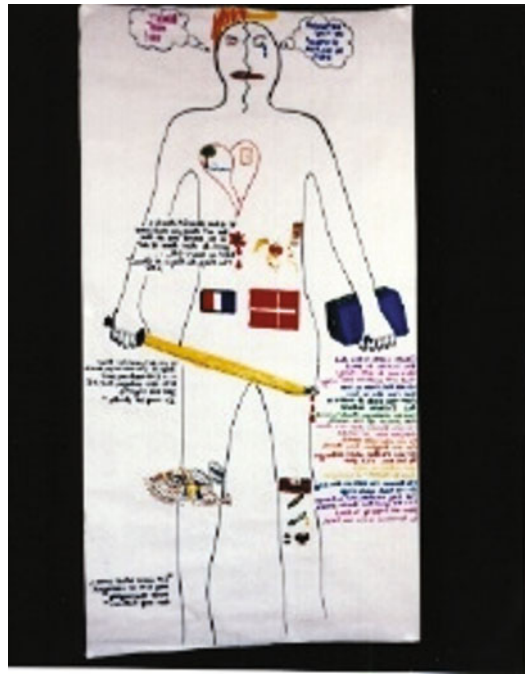


Figure 3: *Body biography of Laertes*

1. The group worked out a way of functioning socially (which was not harmonious in all groups).
2. In relation to their sense of the action, students constructed images of the play—that is, new texts or articulations—that they pictured mentally; they then tried to describe these images to the other students.
3. Other students then responded to these proposed images and compared them with their own images of the same character, scene, or relationship. This response usually required students to clarify both their image and their reasons

- for believing it was fitting, as well as discuss which images best suited the play as they understood it and wanted to depict it in their body biography text.
4. Individual group members then explained to one another the image that they thought should go into the body biography. In doing so, the students needed to discuss why they thought that particular images were apt. This discussion typically involved a rereading of the text they were interpreting (*Hamlet*) so that they could explain their images in terms of their reading of the text.
 5. When they reached agreement through discussion, a student drew the image into the body biography.
 6. Once inscribed on the body biography, each word and image then became part of a text that students could use as a source of further reflection, discussion, interpretation, and image-generation; and at times revision.

In the following excerpt, a group consisting of June, Lisa, Troy, Venus, and Courtney discuss how to depict Laertes's relationship with Ophelia.

June: Would y'all like a tree—

Lisa: Okay, I have an idea—

Troy: You have to draw a tree with Ophelia dangling from it, and there is water below. This old girl is fixin' to go in it. Look she—no, no—make her float more and say, "I'm drowning—I'm drowning, and I don't care." That's what she said.

Courtney: She's under water—

June: Yeah, we have to draw her and then draw like the things like flowers and things like that.

Lisa: She does not know that she is drowning, really. Just have her saying, "I am going to stay up here."

Troy: Have her say, "That's bad, man."

Lisa: Something about how she is at one with the river.

June: Does she say that?

Lisa: No, but she is like—that is what they portray her to be thinking.

Troy: What?

Lisa: She is like at one with the river.

June: Oh yeah. Hey, Venus, what do you think? What should we do about her?

Lisa: What, we should have more lines on this thing?

CHAPTER 6

June: Okay, let's do this and have like flowers. And then she can be down here. Yeah, whatever, see I can't draw at all. She can like be in the water and she is like gulp, gulp, gulp.

This portion of the discussion reveals the ways in which these students' efforts to represent the character's emotional state caused them to generate images for the play and then discuss how to interpret those images. The exploratory quality of their discussion reveals the ways in which the discussion allowed for and built on tentative efforts to construct meaning.

They developed their understanding of Laertes through their efforts to depict him and his relationships in the body biography, a medium that not only represented their view of the character but enabled the discussion that led to their understanding. During their process of association, representation, and reflection, the students discussed possible ways to depict Laertes and his relationships, developed and shared mental images of how to represent him, agreed on and produced the artifact that depicted their collective thinking, and then used that artifact to further mediate their consideration of the character and his role in the play. The ultimate representation they produced in their body biography served as a text whose configuration of signs enabled them to reflect further on the meaning of the images that the play evoked for them. Through this further reflection, they generated yet newer cycles of sense and articulation for Laertes and his relationships in the play.

THE DIALOGIC ROLE OF COMPOSING

As illustrated, the process of reading is a mediating act with a dialogic function: The students' thoughts both shaped and were shaped by the articulated texts they composed. In other words, two simultaneous processes took place. On the one hand, as most reading theorists would assume, the text mediated the associations through which the students developed their interpretations. On the other hand, the process of composing their texts mediated the way they thought about the story.

The next transcript illustrates how this process worked for a small group of girls who interpreted the character of Ophelia through a body biography (see [Figure 4](#)). The girls offered a series of tentative depictions that served as the basis for discussion yet did not necessarily end up in the drawing itself. Even when entered into the body biography, an image would not necessarily be a final interpretation but would serve as the basis for continued thinking and discussion of the play. The girls engaged in the following exchange during their discussion.

Carly⁵: Okay, good deal, her bare feet could symbolize her like—not her innocence but her, oh—

Ann: Purity? Her naïve, how naïve she is?

Carly: Yeah, it's the world, but her nakedness is like her—you know how she is just kind of out there, she's just sort of—

Ann: Third field, left field.

Carly: Yeah, because she is just kind of, you know, just pretty much everyone's looking at her and going, "Oh, you poor thing!"

Ann: I guess she's having a good time.

Carly: Yeah. Crazy as the dickens.

Ann: Ignorance is bliss.

Carly: True.

Ann: I say we should have left the legs there so that she would have some kind of body because those dresses were really transparent, you know. I mean we could have at least told what it is. Oh, I don't know, she looks fine.

Carly: Is it okay?

Ann: Yeah.

Carly: I can draw them back on if you want me to.

Ann: No.

Sherrri: So do we all have to like say something [during their presentation to the class]?

Ann: I think so.

Carly: Okay, that's done.

Ann: That's right, we don't have school Monday—I can't figure out why everybody was saying Tuesday, yeah, we don't have to be back Monday.

Carly: Yeah. Okay, so do we want to do a spine? And if so what's the spine? I think being in love for her because—

Ann: But she had no love.

Carly: Right, that's why she died.

Ann: That's why she went crazy.

Carly: Right, right, I'm just going to—

Ann: That's what we should do for the spine.

Carly: There's the spine! Shall I put "love" or "being loved"?

Ann: Being loved. And a heart, a broken heart.

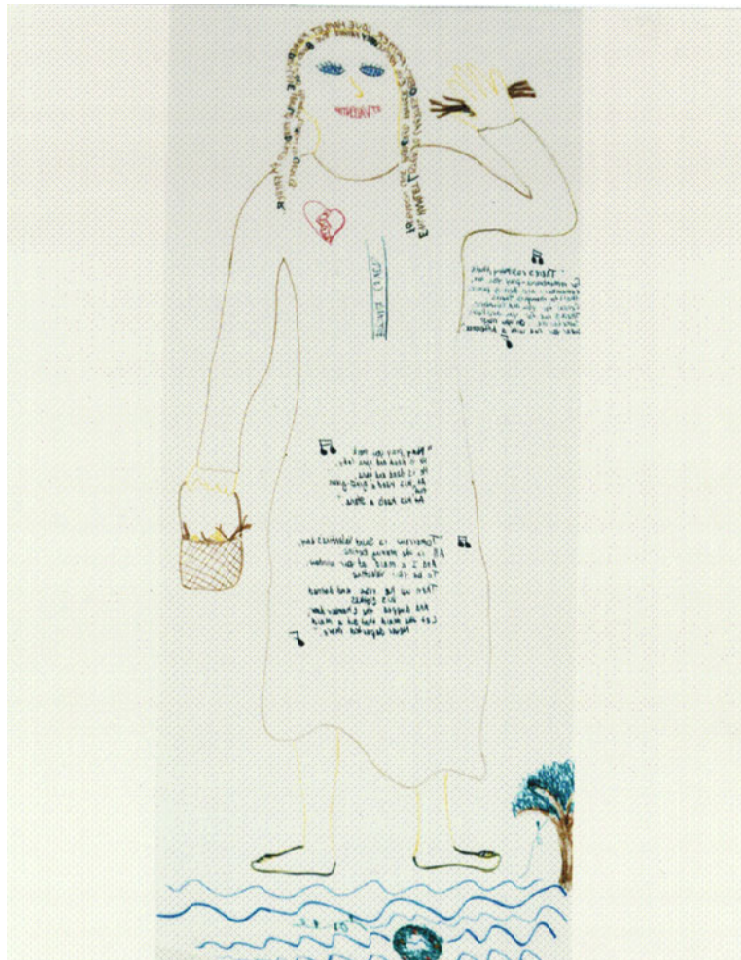


Figure 4: Body biography of Ophelia

This excerpt reveals the ways in which the students' processes of representation underwent continual mediation. Students would initially generate mental representations of the play that they pictured in their heads and described verbally to their group mates. Other students would then respond to these proposed, verbally represented images through discussion and reflection and juxtapose them to the images from their own understanding of Ophelia. When they reached congruent understandings of appropriate images—either literal or symbolic—they would commit them to the body biography. The process of committing an image to the body biog-

raphy required them to take their individual mental representations and articulate them in a material form that required agreement, a process that necessitated clearer explanation as they discussed how to convert their separately idealized mental representations into an agreed-upon corporeal image. Once included on the body biography, each word and image then served as a sign that potentially mediated new thinking about the play. The students thus composed a shared meaning for the play as they produced a collaborative representation of Ophelia and used each articulation as the basis for further development of their thinking about the play.

This example illustrates a process that is a key aspect of composing a meaningful text. Enciso (1992) reports that, in her research with young readers' evocations of stories, "the readers who were most involved in the stories they read were also more able to describe and discuss the events and implications of the story in greater depth and detail" (p. 99). The experience of the students I have described suggests that a reciprocal process can also take place: A reader's exploration of events and implications of a story may cause greater involvement in the reading transaction.

CULTURALLY CONSTRAINED SUBJECTIVITY IN READING

The construct of the evocation suggests that intertextuality, typically described as the juxtaposition of texts, more precisely concerns the ways in which readers juxtapose and connect their associations with those texts. In this sense, intertextuality describes the initial act of juxtaposing texts, while interevocation would account for the richness available to readers through their juxtaposition of associations. Whether they are inchoate (sense) or represented (articulation), these associations in turn potentially generate new evocations and texts. Because meaning emerges from these newly generated associations and texts, and because evocations differ from reader to reader depending on the kinds of relationships they have had in life and the kinds of conventions they invoke while reading, and because experiences of experiences are inherently subjective and fluid (i.e., subject to change over time and in relation to new experiences), the meaning that emerges for readers is inherently idiosyncratic rather than isomorphic. As I have argued previously, readings have a codified and cultural basis in what I have called the transactional zone. If subjectivity is construed as having a codified and cultural basis, then unbridled subjectivity is possible in this zone within the confines of what is available through the textual codes.

I next describe a highly idiosyncratic reading of "The Use of Force" that illustrates the way in which an interpretation that departs from the story line takes place within the transactional zone and illustrates how interevocations contribute to the construction of textual meaning. Jane and Martha, who were in the same alternative school class as Dexter, choreographed an interpretation of the story in which they described how their image of the doctor's emotional state caused them to design a different ending in their dance from the one provided literally in Williams's text. According to Jane:

CHAPTER 6

We did another dance at the very end and we were practicing on it and like she's sheltered like the little girl is hidden. She won't let anybody find out what her secret is and that's what she is doing. She is hiding and the doctor is trying to follow in her footsteps to try to figure out what is going on. And at the very end when it says that she did have [diphtheria], in the dance we made her die. She just fell and the doctor picked her up and carried her. Because like we were going to have the doctor die with her because it was like the third patient he had died and he was dying inside, but [our teacher] didn't really like that. And after we started thinking you know how he gets underneath the skin real hard, it is like we started thinking about it too and he doesn't really die. He tries to help her and stuff. We went further than the story went.

Jane and Martha's reconsideration of their representation following their teacher's intervention resulted in a final effort to choreograph the story's climax, as described by Jane:

That is when they finally figured it out. It is like at the very end they walked together. It's like they walk two steps and when you do a little pause, the doctor shelters her and just looks at her because he's died with her. His whole life has just gone down the drain because it's another kid, he feels it's all his fault this time. And that is how I really felt when I was doing the dance.

This representation of the story's ending departs radically from the literal action of the story, where the girl attacks the doctor in a rage. Jane and Martha's decision to represent the feelings of the doctor in their dance, however, focused their interpretation on his experience of loss. Rather than strictly depicting the story line, they constructed a new text that represented their emotional resonance with the doctor, who emerged as a threatening figure in the image constructed by Dexter. These texts represent different reconstructions of the story, each highly subjective yet responsive to the codes of the original text. As such, they have been produced in the transactional zone of meaning construction available in John Coppock's alternative school classroom.

INTERTEXTUALITY AND EMPLOTMENT IN THE CULTURAL CONSTRUCTION OF MEANING

I have already referred to the role of intertextuality and interevocation—the juxtaposition of both texts and the evocations they generate in readers—in the construction of meaning. I next elaborate the ways in which the texts that readers compose as a consequence of their evocations are related to prior texts of their knowledge. I illustrate two types of interevocational connections I have found that readers make in their engagement with literature in classroom settings. The first comes from a text evoked from personal experience; the second comes from artistic texts recalled by students that informed their composition of a newly constructed text.

Text Evoked from Personal Experience

I illustrate this process with stimulated recall interview data from Martha, one of the girls who choreographed a dance to interpret “The Use of Force.” Martha, who danced the role of the girl, said that she identified strongly with the experience of the character because she shared her reluctance to open up to other people. Like the girl in the story, she felt “scared”: “I felt like the little girl because we live in two different worlds. . . . I felt like the little girl because she was always trying to hide from the doctor, and I was like hiding myself from the doctor” in the dance. Martha’s feeling that she needed to hide from the doctor was based on her own fears of being examined and pried into. Her emotional response to the story illustrates the ways in which her reading was emplotted in the broader narrative of her life’s experiences. At one point, she was asked “When you dance a role, is there any real part of you that gets played out in the dancer?”

Martha: It’s tough for me. When I was hiding from [Jane in the dance], she was the doctor and I was the daughter, the little girl, and it was just like me. I hate people trying to find out who I am so I was basically hiding the way I always hide but I was hiding to be somebody else. I felt like I was hiding in the little girl, but it was me that was hiding, because I do that all the time. I hide from everybody.

Q: Did you feel for the character then?

Martha: Oh yeah, I felt for the character. When I was dancing I was thinking about what I would do. I hated what the doctor did to her. I wanted to kill him.

Later in the interview, Martha returned to her feelings about her character.

Martha: My feelings for the kid started when I was reading the story because there have been many times when I have had some problems. I’m like, I’m okay, get away. In a way I kind of knew how this girl was feeling whenever the doctor was trying to get into her mouth. I am like that with dentists. I hate dentists. I won’t let them get into my mouth. I’m afraid they’re going to pull out my teeth. It scares me. I try to keep my mouth shut too. I put myself in her position through the whole story knowing she was scared and very insecure because she knows she is going to die. She knows through the whole story she’s going to die. She doesn’t want her parents to know about it.

Q: Is it just dentists? Earlier you were talking about how you don’t like people in general getting inside you. So was it just a dentist or was it—

Martha: Well, for people to know me, I don’t like for anyone to know me, it is really scary for people to know me. Who I am or anything like doctors, and stuff like that. I don’t like them to look inside my mouth. With her I feel like

CHAPTER 6

she doesn't want the doctor to know she is dying because I am pretty sure because she could feel her tonsils. She knows she is dying. She knew it, she knew it was there and she knew she was going to die and she didn't want her mom to know. She didn't want her parents to know.

Martha's description of her portrayal of the character reveals the emotional quality of her response to the story, an aspect of Vygotsky's work that I think is unfortunately overlooked. Yaroshevsky (1989), discussing Vygotsky's doctoral dissertation on *Hamlet*, states that Vygotsky

was inspired by the idea of an inner link between spiritual assimilation of the world and its practical transformation. Revealing the mechanism of art's impact on the real behavior of a concrete individual, without restricting oneself to determining its sociological roots and aesthetic specificity—that was Vygotsky's purpose. He endeavoured to prove that art is a means of transforming the individual, an instrument which calls to life the individual's "vast potential, so far suppressed and constrained." The view of art as ornamentation of life "fundamentally contradicts the laws of art discovered by psychological research. It shows that art is the highest concentration of all the biological and social processes in which the individual is involved in society, that it is a mode of finding a balance between man and the world in the most critical and responsible moments of life." (Yaroshevsky, 1989, pp. 148–149; Vygotsky quoted in *Psikhologiy a iskusstra*⁶ [*The Psychology of Art*], pp. 320, 330–331)

This perspective resonates with Rosenblatt's (1978) view that evocations are the source of meaning, with my view that readers compose new texts through their engagement with texts, and with Bruner's (1986) idea that literature subjunctivizes. If literature, as Bruner claims, is our only hope against the long gray night, then I would define literature rather broadly to include any text that allows for the generation of new texts through acts of interevocation. Yaroshevsky argues that Vygotsky assumed that the principal focus of psychology should be personality, "a character of the drama of life on the social state" (p. 219). This drama of life contributes vitally to the development of personality through the composition of meaning from engagement with the texts afforded by culturally channeled experiences.

I would conclude, then, that from a pedagogical standpoint it is critical for teachers to make strong efforts to understand how students emplot their literary readings in their life narratives as dramatic occasions in their development of personality. Doing so would require a move toward not just allowing but encouraging the kinds of idiosyncratic and imaginative representations provided by the students in John Coppock's and Cindy O'Donnell-Allen's classes, a move that would need to take textual conventions into account but would also require teachers to appreciate the kinds of relationships and experiences that students bring to their reading and the constructive ways in which their life narratives can help to produce new texts in transaction with literary texts.

Intertextual Associations with Formal Texts

In addition to evocations from experiential texts, the students I observed drew on formally produced texts during their transactions with literature. Another group interpreting “The Use of Force,” for instance, acted out their interpretation of the story. They drew on images from films they had seen, including *The Exorcist*, as part of their composition of their dramatic interpretation of the story. In the following excerpt, they discuss the images they drew on and produced.

Wes: I tried to play the doctor. The story reminded me of *The Exorcist*, with the girl and the devil. . . . The way she was resisting him and not opening her mouth and stuff. . . .

Bart: They were trying to help her.

Wes: Yeah, and they were trying to help her, and she was like spit coming out her mouth, that made me think even more about [*The Exorcist*].

As their interpretation suggests, intertextuality and interevocations often coincide. First, the students juxtaposed the texts of *The Exorcist* and “The Use of Force” because of the parallels between the young girls and their fierce behavior. Second, the students juxtaposed the evocations they generated from each: the evil image they generated from the girl in *The Exorcist* and the rage and resistance they perceived in the girl from “The Use of Force.” Dyson (1999), Alvermann (2010), and others have argued that the role of popular culture in students’ lives should receive greater recognition in schools. The students in this group illustrate the ways in which a film from popular culture provided them with both the images and the emotional content of the character of the girl as they represented her in their dramatic interpretation.

THE DEPTH AND DYNAMICS OF CONTEXT

Previously, I argued that reading can be a mediating process; that is, it contributes to the construction of meaning. Here I describe how reading is a mediated process, one channeled by reliance on cultural practice (see Smagorinsky & O’Donnell-Allen, 1998a). Much of my argument has been predicated on the idea that one’s evocations are grounded in cultural practice. While personal and idiosyncratic, they rely on the codification embedded in texts, including those read (intertextuality) and those generated (interevocation), and the conventions embedded in recurring social practices (intercontextuality) (Floriani, 1993). These signs and tools are grounded in culture writ large, such as the Enlightenment and Romantic traditions of Western thought described by Taylor (1985a, 1995b) and Wertsch (2000) (elaborated in Chapter 7). Culture is also writ small, often highly localized in settings such as idiocultures (cf. Cole, 1996; Fine, 1987; Smagorinsky & O’Donnell-Allen, 2000) such as that available in the alternative school for recovering substance

CHAPTER 6

abusers that provided the setting for the interpretations of “The Use of Force.” The reading of the students I have described was thus mediated by the cultural practices of the school, in that emotional readings were sanctioned as valuable, and mediating in that their process of producing new texts contributed to the meaning that emerged during their transaction.

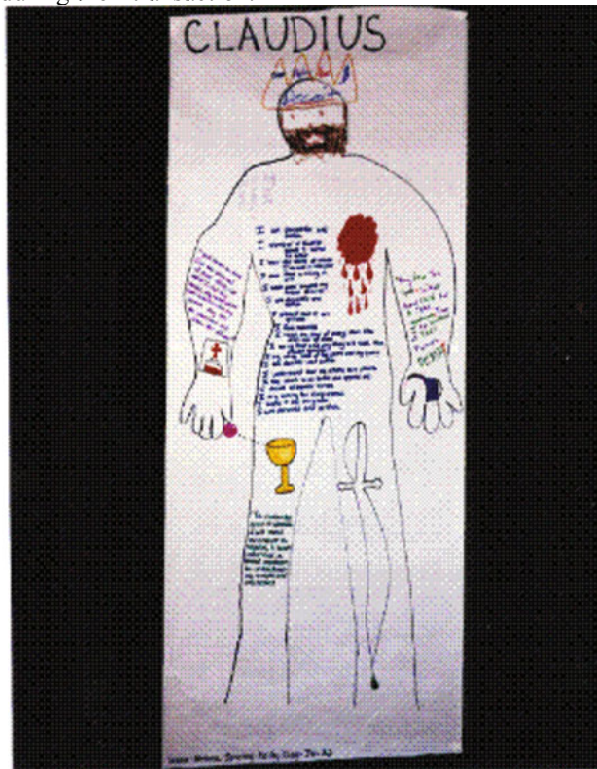


Figure 5: Body biography of Claudius

Other groups I have studied have demonstrated considerably less acceptance of the potential for literary reading to contribute to the development of personality, to lead them out of the long gray night. The students from Cindy O'Donnell-Allen's mainstream high school class, for instance, exhibited varying degrees of engagement with both school and literature. During my yearlong observation of her class, I was tremendously impressed with the effort she made to construct a classroom environment that valued meaning construction, student empowerment, and open-ended thinking. This effort resulted in many remarkable progressions for a number of students.

There were nonetheless students who resisted the idea that school should be a site for personal development. I attribute this opposition to culture writ semi-large. The school as a whole had a college preparatory emphasis in which meaning was generally located in texts and explained through lectures, thus making her meaning-centered approach unique to many students. Furthermore, the school lacked the emotional intensity that was central to the therapeutic mission of the alternative school, thus making introspection less urgent in the lives of the students. Finally, because the school was large and diverse, there were simply many students whose priorities did not include advanced literacy or engagement with literature as a means to personality development. These students typically ended up in the school's general track, which categorized the class that I observed.

Our analysis of groups that included disengaged students (see, e.g., Smagorinsky & O'Donnell-Allen, 1998b, 2000) led us to reconsider the depth and dynamics of context in engagement. In spite of our hopes that Cindy's classroom environment would lead to transformations in all students' priorities, the continued disengagement of some students led us to consider the degree to which certain students bring personal histories that create barriers to engagement with schoolwork. Among the students who interpreted *Hamlet* through body biographies was a group that interpreted the character of Claudius (see Figure 5). This group included two students who were hostile to Cindy throughout the semester and, in general, hostile toward school and other students. When in groups, they tended to undermine other students' efforts to work harmoniously on the task. The next excerpt is typical of how a boy named Jerry worked against the group and class goals, demonstrating an apathetic resistance that showed up in his group's body biography. The group was discussing how they might draw a crown on Claudius's head as part of their depiction of his character.

Jay: The crown can be something that he stands for.

Cale: Somebody draw the crown.

Jay: For incest.

Cale: Draw the crown, what?

Jay: Well—

Jerry: What are we supposed to do now? Don't be disappointed if this doesn't look so good.

Cale: I don't understand. [inaudible] Jerry! Jerry, why did you do that?

Jerry: Because it doesn't matter what it looks like as long as we get our representation. He told me to draw the crown, and I said, "OK, but don't get mad at me if I draw it badly." And everybody goes— [makes a grumbling noise]

CHAPTER 6

Cale: That looks like trash, Jerry. Jerry, that is one rotten crown, dude.

Jerry: Do you like it? Incest!

Cale: Actually, incest could be adultery.

Jerry: Oh, who cares.

Jerry's remarks reveal his eagerness to impress on others his indifference and to inscribe it in the group's body biography. In doing so, he undermined the kinds of relationships that can lead to the consonant sorts of discussions we found in other groups, particularly the group that interpreted Ophelia through what we have characterized as a constructive *relational framework* (Smagorinsky & O'Donnell-Allen, 2000). In this case, Jerry interpreted Cindy's assignment as a license to produce a sloppy interpretation. Cindy had told the students that they would be graded on the ideas they were representing, rather than on the quality of their artwork. Her thinking was that she did not want to reward good artists and punish the artistically challenged, since the goal of the activity was to interpret the character rather than to demonstrate artistic prowess. Jerry's view that "it doesn't matter what it looks like" was typical of his cavalier attitude toward school and toward the other students in his group. The other students did not appreciate the trashy appearance of his drawing or his general conduct during the group activity. And we had to agree that he drew one rotten crown.

We concluded that a consideration of context must go beyond what happens in individual classrooms and take into account the social worlds of the students and their prior experiences and relationships within the school culture. The establishment of a predominant motive for a classroom does not preclude other goals from surfacing or developing. Within the idioculture of a classroom, then, alternative idiocultures may develop that subvert or complicate the overall dynamics of the interactions and affect the degree to which students see the potential for constructing meaning.

Our study suggests the need to reconceive the notion of engaged reading. The classroom can suggest a motive that channels activity but does not necessarily facilitate it in any one direction. What is needed is a consideration of engagement in a much more social sense, including readers and texts but extending to relationships beyond them. Lensmire (1994) argued that notions of engagement require "the participation of *all* children in the community's important activities" (p. 147; emphasis in original) so that each has a voice, contributes to the classroom, and is heard by others. Students' engagement with texts thus requires engagement with each other, thereby establishing an environment of mutual care and concern.

I would extend this view further to account for students' prior experiences with school and other contexts for literacy development, taking into account learners' cultural and social histories and viewing their relationship with texts in terms of this vast web of experiences that they bring to particular classroom episodes.

Engagement, like other aspects of activity, is “nested” (Cazden, 1988, p. 198) in multiple social contexts that must be acknowledged and accounted for. Gallas (2001; cf. Gallas & Smagorinsky, 2002), as a practicing teacher, wonders why texts play a mediational role for some students but not others and is vexed by the problem of how she can make texts more *approachable* to students who resist them. A major obstacle for elementary students, she argues, is the cultural dissonance that some students experience between reading as a conventional school activity and reading as they practice it outside school.

In terms of both Gallas’s concern for reading as a cultured, conditional practice and my concern for large-scale engagement with school and its discourses as central to a student’s identity (Gee, 1990), teachers face tremendous challenges in creating contexts and social practices that can make their classrooms receptive to all of their diverse students and the life narratives they bring to their appointed times together in school. On the basis of my studies of students’ responses to literature, I would conclude that their potential for engagement comes from their volition to read in whatever ways are endorsed in the school and classroom, their congruence with the goals of the school and classroom, their congruence with the codes and conventions that govern both reading and social practices, and their congruence with the cultural values and practices that constitute classroom life.

CONCLUSION

In this chapter I have argued that reading is a constructive act in which meaning emerges through the composition of a new text in the transactional zone. Meaning is constructed through two related processes. Initially, meaning emerges through the process of articulation as sense achieves expression through the medium of a psychological tool. This process produces some sort of image, a newly evoked text, that provisionally serves as the repository of meaning. This text is protean, changing with new reflection on its form. Its articulated potential thus makes it available as a tool for new transformations. When a sign becomes a tool—when an exploratory, tool-mediated process leads to a representation that in turn leads to reflection and new evocations that, when articulated, generate further evocations, with the process potentially extending indefinitely—a new concept potentially emerges. This process of concept development is at the heart of the construction of meaning. The richest meaning, then, comes through transactions that are most generative in the production of potent new texts.

The tool mediation I have described has a cultural basis. As a result, while idiosyncratic, the evocations are also culturally grounded. The influences of culture may come at the very general level, such as when a high-stakes standardized test drives a curriculum toward uniform and authoritative rather than idiosyncratic readings of texts. Culture may also mediate activity at more local levels, such as when advanced placement literature courses teach to the text-centered assumptions about reading embedded in advanced placement assessments (Olson, Metzger, &

Ashton-Jones, 1989). Resisting culture to construct more personal meaning is, I would argue, a futile quest.

As the notion of prolepsis suggests, cultural mediation is often invisible, and so the effort to escape culture is simply the effort to flee its most visible influences. From an educational standpoint, the view of reading that I propose suggests the importance of creating contexts and attendant social practices—what Moll (1990) describes as zones of proximal development (see Chapter 3)—with the potential to enable students to have rich transactions with texts, keeping in mind that even the most conducive context can be resisted by students whose goals do not include having rich transactions with texts or becoming engaged with school. Within these contexts, in contrast to current trends toward standard curricula and assessment, schools can provide more opportunities for imaginative responses to reading to enable the richest transactions possible for the broadest range of students.

Issues of culture inevitably involve issues of power, in that cultures are driven by predominant practices and discourses. The culture in which reading takes place, then, suggests better and worse ways in which a reading might unfold and advantageous and less advantageous ways in which readers might position themselves through the capital provided by their readings. Imaginative transactions with literary texts might be discouraged in school systems situated in a culture of authoritative relationships and standardized testing; collaborative approaches to learning practiced by some cultural groups would be disallowed in schools predicated on notions of individual competition (Moll, 2000); and conventions followed by authors outside the traditional school canons might position their work as inferior relative to established standards and thus inappropriate for school study (Lee, 1993). Indeed, all readings of Vygotsky were suppressed by the Soviet leaders of the 1930s and 1940s who deemed his theories too bourgeois and anti-Marxist for their socialist state (Kozulin, 1986). The context of reading is thus in part constituted by the power relationships that grant different kinds of readings different degrees of capital.

The consequences that follow from unevenly distributed capital can be dramatic. Bleich (1975) and others have argued that what matters most is the meaning constructed by the reader. Perhaps this is true, although it might be hard to persuade the many goats and virgins who have been sacrificed to the thunder gods that their slayers' impressions should be paramount. Textual readings can, as this illustration shows, potentially do violence to other readers, both afield and in the classroom. As educational researchers have found, many classrooms provide little space for students who “resist the normative institutional practices of the classroom, or whose local and cultural knowledge are often displaced” by the middle-class norms and practices followed in schools (Gutiérrez & Stone, 2000, p. 156). An acultural and exclusively personal view of reading, then, can overlook the power differentials and social inequities that can ensue when some readings have greater cachet than others in a particular setting.

My studies have focused on the material texts that high school students have produced as codified designations of their evocations of texts. From my analysis of these transactions, I hypothesize that readers reading alone in the solitary confines of their dens similarly engage in social, cultural, and historical text construction, if more ephemerally. Rather than producing the material texts of body biographies and plays, they produce mental representations that, while not tangible, linger yet. Though alone, they engage in culturally mediated processes, in dialogue with the great history of texts, contexts, intertexts, interevocations, and intercontexts. Though alone, they act in relationship with other readers and readings, participating in communities of practice where social positioning and powerful readings have consequences for others. Through their role in this process, and through their contributions to it, meaning emerges for the worlds they inhabit and the lives they lead within their worlds. The construction of meaning in relation to texts occurs in the transactional zone and the kinds of processes and practices that readers engage in as they plot the associations they make with the text with their broader life narrative, generating new texts that in turn make that narrative more comprehensible in terms of the cultural and ideological drama that composes their life story and locates that story in a broader social community's political life.

NOTES

- ¹ As a native of the U.S. South and current resident of Georgia, I personally find current displays of the Confederate battle flag to be racist and offensive. Fortunately for my sensibilities, the state of Georgia has redesigned its flag twice since the controversy in South Carolina, with the current version including a reduced replica of all previous designs across the bottom of the new, dominant symbols (http://www.sos.georgia.gov/archives/museum/html/georgia_flag_history.html).
- ² At least, I think this is a false premise.
- ³ See <http://www.worldwideschool.org/library/books/lit/drama/AModestProposal/Chap1.html>.
- ⁴ See <http://www.bnl.com/shorts/stories/force.html>.
- ⁵ In general, I follow the convention of using pseudonyms for research participants, as I do here. "Carly" was later identified as Susan Bynum, her married name, when we published the study reported on academic bullshitting in Chapter 7. Given that I worked my way through the data from this year-long ethnography systematically while also undertaking the lines of inquiry on character education and teachers' concept development, there is a gap of over a decade between the publication of the original studies from Cindy O'Donnell-Allen's classroom and the most recent ones, during which time Susan/Carly graduated, attended college, got married, had children, and ultimately was contacted for a member check and eventual inclusion as coauthor.
- ⁶ Note that Yaroshevsky draws on a Russian version of *The Psychology of Art* rather than the M.I.T. Press version that I rely on in translation.

WRITING AS TOOL AND SIGN

People have been communicating through symbol systems for quite a long time. The abilities to speak and use language (distinctions made by anthropologists to refer separately to the ability to form sounds audibly and the development of a systematic organization of sounds and symbols into a patterned scheme of communication) have characterized both humans and their antecedent primates since early in their evolutionary development (Fitch, 2000) as a way to produce auditory symbols that represent objects, ideas, actions, and other nonlinguistic referents. Researchers dispute the point at which humans began using language, with estimates ranging from 10,000-100,000 years ago, depending on the evidence consulted (e.g., Atkinson, 2011; Gray & Atkinson, 2003).

The first written symbol system was *numeric* and preceded linguistic symbol systems by about four millennia. In about 7500 BCE, members of the early Mesopotamian society began impressing numeric symbols in clay to represent their social and commercial transactions (Schmandt-Besserat, 2011). Before the appearance of the cuneiform and hieroglyphic linguistic texts that first appeared between 3500 and 3200 BCE, Mesopotamian and Egyptian people used primitive stamp and cylinder seals, i.e., round stones that people used to make impressions in clay. Each seal was specific to an individual or social group to “brand” their belongings as distinctively their property; the seal thus marked an object as residing within a particular individual or group’s archival record. Mesopotamians also used clay “envelopes” prior to the emergence of a formal script. These devices consisted of hollow balls with small tokens sealed inside that served a contractual role, providing a form of record-keeping that led to the recording of numbers on clay, which itself was the immediate precursor for their cuneiform¹ script (Woods, 2010a).

Subsequently, all known writing systems originated from four independently developed scripts, a relatively new finding that revises previous theories that saw writing originating in the Eastern Mediterranean region and gradually spreading from there (Woods, 2010a). The most recent data regarding writing’s origins—a date that is subject to continual revision as archeology produces new sources of evidence—indicate that Egypt and Mesopotamia were indeed the first societies to develop writing systems, each created separately and without one another’s influence. Independent of these developments, and toward different cultural ends using unique symbol systems, Chinese (1200 BCE) and Mesoamerican (1200-600 BCE) systems followed to produce the prototypes for the remainder of the world to follow.

CHAPTER 7

Unlike today's writing, the Mesopotamian pictographic text, like all early forms of writing, was used exclusively to maintain economic records of transactions among those of high status. The curators of the exhibition at the University of Chicago's Oriental Institute that documents this historical record (detailed in Woods, 2010a) report that about 90% of texts recovered from Mesopotamia were administrative documents that became necessary during a population expansion in Uruk in about 3500 BCE. This growth produced a more complex social and trading civilization that required a bureaucracy for its organization of goods and how they were distributed across the stratified society's inhabitants.

Determining what counted as writing and what served as a precursor requires some key distinctions. The contributors to Woods' (2010a) edited volume

define writing as a one-to-one correspondence between text and speech. When Egyptian hieroglyphics were invented, the creators used the rebus principle—in the English alphabet, for example, drawing an eye shape to signify the *I* sound—as well as pictograms to represent specific objects. . . . The Egyptians eventually moved to full representation, “sound by sound and word by word,” so that when one person reads a text, it sounds the same as when another reads it. Ancient cave paintings, by contrast, do not count as writing—different people viewing a cave painting may use different words to tell its story. (Kott, 2011, n. p.)

Kott (2011) further reports that to Woods (2010b), the written scripts' use of characters and grammar represents the boundary between prehistory and history because it enabled people to document the present and past and thus provide a record of the evolution of their society. Serving this historical and contemporary purpose, writing reveals each culture's social organization and cultural thrust: its teleological ends and the primary tool, a written script, through which its commerce is archived and thus used as the template for new transactions.

The field of comparative human cognition (Laboratory of Comparative Human Cognition, 1978) emphasizes the manner in which tool-mediated thinking serves and in turn helps to reproduce a culture's goals and practices and channel them toward its sense of optimal developmental outcome. The use of writing in Indo-European cultures as a bureaucratic means of record-keeping for goods, labor, and production suggests much about this area as the origin of capitalist societies. In contrast, in China and in Mesoamerica, scripts most likely developed for religious purposes:

In China, the social component is clearly in evidence as witnessed by the emergent Shang state (ca. 1200 BC[E]), but writing is first attested primarily within the context of divination—for the purpose of recording royal divinations performed at the Shang court. Written on turtle shells and ox scapulas, these inscriptions recorded the answers to queries that were put to the gods [see Shaughnessy, 2010]. The Mesoamerican case is even more nebulous.

The earliest writing in the Americas—the undeciphered Zapotec and Isthmian scripts and the first Maya writing—is essentially commemorative with a considerable theological component, many of the glyphs having a basis in long-established iconographic traditions and a calendrical system of great cultural significance. . . . Further, in the better-understood Maya case, the advent of sociopolitical complexity, as witnessed by monumental architecture and increased social stratification, predates the first texts by several centuries. . . . These are contexts that may suggest religious and cultural motivations for writing, rather than administrative or economic necessities [see Palka, 2010]. (Woods, 2010b, p. 17)

If these scripts are indicative of their societies' sense of telos and the use of writing to mediate development toward that end, they reveal profoundly different understandings of the purpose of life on earth and how to live it socially and culturally. In this chapter I move to a more modern-day conception of the role of writing in society, emphasizing its tool function and embedding writing practice in broader cultural processes so as to understand its role in current educational practice and in the abundant settings in which writing plays a role outside school.

RESEARCHING WRITING FROM A VYGOTSKIAN PERSPECTIVE

In Chapter 5 I briefly review the history of writing research from its origins in “alchemy” to its establishment as “science” and ultimately to its current state as the province of many epistemologies. Writing is now studied from the standpoint of sociocultural theories, information processing, poststructuralism, postcolonialism, postmodernism, feminism, Marxism, queer theory, critical theory, anthropology, archeology, psychology, communication, pedagogy, rhetoric, therapy, and other perspectives. It is studied in the contexts of school, university, home, family, community, discipline, the workplace, the courtroom, virtual environments, and countless other settings. Writing is investigated as a historical phenomenon, as a means of developing identity, as a form of assessment, as a type of performance, as ideological expression, as an act situated in sexist and racist institutions, and as serving many other purposes. Some study products, some study processes, some study both, and some study the broad types of writing produced in specific contexts such as schools. Researchers have studied every age group from those learning “emergent” literacy to those in their dotage, and every level of experience or competence from “remedial” or “basic” to “expert,” “advanced,” or “master” writers.

Methods for investigating writing include experiments contrasting different teaching approaches, interviews with teachers, interviews with students, interviews with writers who are not in school, surveys of writers and teachers of writing about their beliefs and practices, analyses of written texts and related documents, real-time methods such as concurrent protocol analysis and the use of computers to track the unfolding of a text, observations in classrooms and other settings, retro-

CHAPTER 7

spective methods including retrospective protocol analysis and stimulated recall, analysis of the social processes that surround writing, and no doubt many other means of collection, reduction, and analysis that are developing as I type this paragraph and as you read it.

My intention here is not to document the entirety of what has emerged as the vast field of writing research. In the first century of the 21st century, three edited books providing reviews of writing research appeared almost simultaneously: Bazerman (2008), MacArthur, Graham, and Fitzgerald (2006), and Smagorinsky (2006), followed in short order by volumes edited by Troia, Shankland, and Heintz (2010) and Grigorenko, Mambrino, and Preiss (2011). I refer readers to these comprehensive volumes for a broad review emerging from many perspectives and organized to feature different aspects of writing. My purpose in this chapter is rather to describe how I see writing research emerging from a Vygotskian perspective.

VYGOTSKY'S SPECIFIC ATTENTION TO WRITING

Vygotsky's primary attention to the act of writing comes in two places in his writing. I will first review what he offers in the essay "Prehistory of the Development of Written Language," which is included in *Mind in Society* (1978) and Volume 4 of the *Collected Works* (1997b). I will refer to this latter version for referencing purposes in this chapter². I then turn to his account of the role of writing in his consideration of "The Development of Scientific Concepts in Childhood" in *Thinking and Speech*, for which I use the translation in Volume 1 of the *Collected Works* (1987), which as I noted in previous chapters is the preferred translation among those I know who speak both Russian and English.

Vygotsky was almost exclusively interested in writing as it occurs as a school-based activity in which the act of writing contributes to the development of formal, abstract thought of the sort involved in the development of "scientific" or academic concepts. Such concepts are amenable to re-application in new settings to solve new problems with shared properties, with the ideas being abstracted to allow for such appropriation, adaptation, and repurposing. As Cole (1993) has noted, "school is the place where print is almost exclusively the object of activity rather than a tool for achieving child goals. . . . the acquisition of literacy [by way of schooling] made possible a higher, more logical mode of thinking owing to the way in which writing changes the subject's resources for systematic thought" (p. 15). One might argue that instruction in formal, abstract principles that can be extracted for new applications could occur in any institution—clubs, faith communities, organized sports, and countless others—and that it is further available, if not necessary, in seemingly informal settings such as apprenticeship relationships in virtually any form of activity. Vygotsky's focus, however, was on school as the primary setting for such learning.

Vygotsky's notion of concepts as they relate to writing involved more than a structural abstraction. He was fundamentally concerned with issues of *meaning* in

his beliefs about the role of mediational means in culturally situated human development (see Chapter 6 where I attend specifically to the construction of meaning). His critique of writing instruction for children in the early Soviet Union could easily apply to much of the form-oriented teaching that characterizes the writing curriculum in the 21st century United States:

The mechanics of reading is put forward so much that it shades written language as such, and for this reason, teaching the mechanics of writing and reading is dominant over an intelligent use of this mechanism. . . . Pupils are taught not written language, but writing of words, and for this reason, to a significant degree, the teaching of written language has still not been raised above the level of traditional correct and neat writing. We still do not base the teaching of writing on the naturally developing needs of the child and on his initiative, but present it to him from outside, from the hands of the teachers, and it resembles the development of any technical habit, for example, the habit of playing the piano. With this state of the matter, the pupil develops finger facility and learns how to read notes and strike the keys, but he is absolutely not introduced to the poetry of music. (p. 131)

For Vygotsky (1997b), this emphasis on meaning was a central concern of tool-mediated action. “For the child,” he said, “mastery of written language represents a special and exceptionally complex symbolic system of signs” (p. 132). These signs potentially serve to mediate the development of consciousness in culturally meaningful ways that enable learners to act on their worlds. Although the mechanical reproduction of the sign system itself is *part* of this process, *as the focus of learning itself* it does not enable the learner to realize the potential of abstraction that allows for a firm grasp of a culture’s concepts and thus an ability to participate fruitfully and fulfillingly in its processes.

In rejecting mechanistic views of writing that focus on form without attention to the meaning potential of texts, Vygotsky argued that

written language consists of a system of signs arbitrarily forming sounds and words of oral speech that in turn are signs for real objects and relations. Gradually, the intermediate connection, specifically, oral speech, can fade away and written language is converted into a system of signs directly symbolizing the signified objects and the relations among them. . . . Only by approaching the teaching of writing from a historical point of view, that is, only by attempting to understand this moment in the whole history of the cultural development of the child, can we approach the correct solution to the whole psychology of writing. (p. 132)

Consistent with his view that concept development represents a twisting rather than direct path, and consistent with his belief that writing is a mediational tool in the development of concepts, Vygotsky viewed the development of writing ability as

one that involves “spasmodic changes and disruptions or breaks in the line of development” (p. 132) that nonetheless comprise a single, if at times contorted, path of development. This emphasis on *writing as a psychological tool for producing meaningful semiotic signs as part of a larger developmental process* is central to any research effort that claims a Vygotskian influence. Like many of his insights, this view of writing’s role in a meaningful life resonates with challenges that are present nearly a century later due to the persistence of schooling practices of the sort reviewed in Chapter 4.

It is important to keep in mind that Vygotsky’s interest as a researcher was the young child, and that extrapolating his ideas to older populations is not always a simple matter of applying his insights to older populations. I will consider older writers later in this chapter, but for the moment will focus on his own attention to the development of writing abilities in young learners. As a developmental social-cultural-historical psychologist, Vygotsky was interested in how people come to appropriate the mediational tools of a culture. Toward this end he established the necessity of tracing the *prehistory* of the development of written language in the child: those processes that provide the language use that can ultimately be abstracted by a learner for use in written form. For Vygotsky, the clinical laboratory was a fitting site in which to conduct experiments through which this prehistory could become evident to a researcher. As I will review later, current applications of his idea are more likely to study writing as a process situated in everyday activity, including that occurring in school.

Vygotsky located a child’s writing prehistory in his or her *gesture* to point to food, toys, and other objects of desire or necessity. He viewed the gesture as the child’s first form of symbolic designation. This use of symbolic acts, he argues, bears a developmental connection to children’s later use of written signs, often in the form of scribbles and drawings that may be accompanied by spoken words and gestures that collectively serve as intermediary forms of symbolic representation. This process may be abetted by the child’s symbolic play, which is full of indexical gestures. Symbolic play, says Vygotsky, may thus “be understood as a very complex system of speech aided by gestures that supplement and indicate the meaning of individual toys. Only on the basis of indicating gestures does the toy gradually acquire its meaning precisely as drawing, supported at first by a gesture, becomes an independent sign” (p. 135). The developmental process thus locates the child’s association of meaning *in the gesture and not the object itself*. What is of paramount importance is *the meaning ascribed to the symbolic act by the child* and how that meaning distills the cultural knowledge appropriated by the child, which in turn enables the child to act and communicate in that cultural world in ways that others can understand and act on. This emphasis suggests that processes of evocation and meta-experience begin contributing to the formation of meaningful literate acts during infancy.

Central to writing development is the child’s ability to disassociate the meaning ascribed to a symbolic act from the context of its initial encounter and to give that

symbol a unified concrete meaning irrespective of context. Rather than being “decontextualized,” then—the term employed by Wertsch (1985) in his early interpretation of Vygotsky—the symbols are abstracted for *recontextualization and repurposing* where appropriate. A child who regards a stick as a hobby horse thus begins to disassociate the meaning of “horse” from this context and ascribe to the word a relatively stable meaning that becomes refined over time as the developing child learns to differentiate horses from donkeys, zebras, and other horse-like animals. Thus, says Vygotsky,

the sign acquired an independent objective development that did not depend on the gesture of the child, and in this [capacity] we see a second great epoch in the development of the written language of the child . . . [such that] the representation begins independently to stand for some object. . . . [A]n intention to represent something abstract develops on the basis of the representation of a form that was drawn and named after the drawing was completed. Speech moving ahead [of action] serves as a means for important mental progress. . . . [S]ymbolic representation in play and at a very early stage is, in essence, a unique form of speech that leads directly to written language. (pp. 137–138)

Through this process a child experiences the “prehistory” of writing: the developmental processes of using speech symbolically through gesture and then other symbol systems so that a foundation is laid for adopting written speech as a means of symbolic representation. Vygotsky views writing as “the most complex device of cultural behavior” (p. 140). He asserts that a child is able to learn this complex behavior with surprising ease in school because of the manner in which prior symbol systems are developed in conjunction with fluency in a culture’s use of speech.

Vygotsky (1987) attends to the learning of writing in his final major work, *Thinking and Speech*, as part of his broader consideration of the question of the development of scientific concepts. Learning these abstract ways of thinking within cultural contours is, to Vygotsky, the purpose of formal education and the means through which a learner appropriates the critical concepts that provide a notion of cultural telos for life within his or her society. In the discussion leading up to his attention to writing in section 4.1 of Chapter 6 of *Thinking and Speech*, Vygotsky establishes that instruction and human development “are neither two entirely independent processes nor a single process. In our view, they are two processes with complex interrelationships.” Their interrelated nature led Vygotsky to conclude that he and his students at the Leningrad pedagogical institute, whose these research provided him with data for his argument, had arrived at “a unified conception of the problem of instruction and development” (p. 201).

Vygotsky’s view of the challenge of learning to write in school shifts from his view that this “most complex device of cultural behavior” (1997b, p. 140) is achieved with relative ease to the question, “Why is written speech so difficult for

the school child?" (1987, p. 202). He substantiates his belief in the difficulty of learning to write by noting a lag of between 6-8 years between spoken and written competencies. I interpret his seemingly contradictory views as a function of the context in which he presented these different observations. On the one hand, it is remarkable indeed that, within a few years, young children can gain some degree of fluency with culture's most complex mediational means. At the same time, this process is among the most difficult means of representation in which to achieve fluency *relative to other school tasks*. It is possible, then, paradoxically, for the learning of writing to be surprisingly easy yet fundamentally difficult.

Vygotsky again rejects the notion that learning to write involves the mastery of technique. Rather, he views writing in terms of its role as a cultural tool that contributes to one's capacity for abstraction. Lacking sound, intonation, and expression—at least in the 1930s Soviet Union before technology began to enable writing to be coupled with other media—written speech relies on its potential for representation alone to suggest *meaning*, which was central to Vygotsky's conception of communication and sign use. What creates challenges for the writer is the absence of a conversational partner to provide feedback: a reassurance, a quizzical expression, a knowing smile, or other indication of comprehension or confusion to help direct the writer's need for clarification. Again, he developed these ideas long before technology enabled writing to proceed as a real-time conversation. Written speech is, he says, "the algebra of speech" (p. 203), one requiring second order symbolic thought and expression that is built on the foundation of oral speech but elevated to a higher, more abstract plane.

For children learning how to write, understanding *why* such graphic representation is useful and necessary becomes critical. If, as Vygotsky postulates, motivation precedes meaningful activity, then schoolchildren need something more than the learning of writing mechanics in order to understand the purpose of the activity. Oral speech, he asserts, "is regulated by the dynamics of the situation" (p. 203): One speaks in order to communicate directly with someone present in order to meet a particular, immediate need³. Written speech instead requires the construction of an imaginative setting that is, for the most part, independent of the concrete present; and the writing is volitionally directed toward a purpose suited for this anticipated setting. Learning to write thus involves learning to imagine settings in which written speech might be read and responded to without the benefit of constructive or critical feedback to guide the formulation of phrasings and, ultimately, the situation of the text within the conventions of a genre.

A great part of the challenge of representing thinking in written speech concerns the fundamental differences among what Vygotsky terms inner speech, external speech, and written speech. Inner speech—the inchoate, tumbling, nonlinear means of thinking that goes unarticulated (see Chapter 6 for a review of *sense*)—"is maximally contracted, abbreviated, and telegraphic" (1987, p. 204). Assuming a normally functioning brain that is not, as Jaynes (1976) hypothesized about humans from prior to about 2000 BCE., bicameral and thus amenable to "hearing

voices” of others in thought⁴, or schizophrenic in the current sense, one’s inner speech requires no conversational partner or interlocutor.

As Vygotsky notes, if a transcript of one’s inner speech were made available, it would be comprehensible to the person responsible for the inner speech, who could make appropriate instantiations for the abbreviated syntax of the expression; yet it would likely be incomprehensible to anyone else lacking such antecedent knowledge. External or spoken speech presumably has a conversant to provide prompts for clarification and confirmation. Written speech, in contrast, requires explication of a sort that, particularly for a novice writer, must be produced with great deliberation and with volitional intent. While people learn and use speech in a primary language spontaneously through immersion, written speech “forces the child to act more intellectually. . . . The motives of written speech are more abstract, intellectualistic, and separated from need” (p. 204).

A critical conclusion of this analysis is that “*when instruction in written speech begins, the basic mental functions that underlie it are not fully developed; indeed, their development has not yet begun.* Instruction depends on processes that have not yet matured, processes that have just entered the first phases of their development” (Vygotsky, 1987, p. 205; emphasis in original). Vygotsky thus supports instruction in grammar, a debate about which rages to this day. Over a century of research indicates that isolated grammar instruction has, if anything, a negative effect on writers’ development because it takes up considerable instructional time with few demonstrated improvements in either students’ oral or written speech (Braddock et al., 1963; Hillocks, 1986; Weaver, 1996). Vygotsky asserts, however, that by learning formal properties of syntax, learners will gain new conscious, volitional, and intentional awareness and control over written expression; and such means of awareness and control are the primary contributions of school to development and enable “the potential of moving to a higher level in speech development” (p. 206).

Vygotsky’s position would place him greatly at odds with many who have claimed him as a theoretical source. Goodman and Goodman (1990), for instance, embrace a whole language approach that is antagonistic toward direct grammar instruction. Hillocks (1995) has positioned his instructional approach as illustrating the scaffolding potential available through Vygotsky’s limited notion of the ZPD, yet has argued emphatically against isolated grammar instruction (he is more amenable to procedural instruction in syntax manipulation; see Hillocks, 1986, and my brief review of *sentence combining* later in this chapter). The question might boil down to *how* grammar is taught, rather than if it should be taught at all or if there is a propitious developmental point at which grammar instruction is best provided, either to lead instruction as Vygotsky asserts or to meet the learner at the appropriate stage of development and moment of need, as Montessori (1912), Graves (1983), and other noninterventional educators might recommend.

Vygotsky’s belief that *instruction may lead development* produces the insight that, rather than waiting for development to occur before introducing instruction

based on new potentials, instruction may promote development toward desired ends. What becomes vexing is the problem suggested by Searle's (1984) question concerning the scaffolding metaphor, "Who's building whose building?" In other words, if instruction leads development, one must ask, "Development toward what, and according to whose priorities?" The answer to these nettlesome questions is not available in Vygotsky's own work; and if Luria's (1976) research in the newly incorporated Muslim territories of the Soviet Union (see Chapter 3) is any indication of how he himself viewed the problem, it is possible that he saw some developmental paths as universally more advantageous than others. The question of "Who is leading whose development toward whose ends, how, and why?" should be central to any application of Vygotsky's theory to current social issues, in spite of the fact that he never addressed this problem specifically in his own work.

THE SIGN AND TOOL FUNCTIONS OF WRITING

Adapting Vygotsky's work to current studies of writing has proven problematic. Although many have referenced the ZPD to describe various instances of writing instruction that are claimed to involve scaffolding, few have linked the ZPD to what I consider to be central to a Vygotskian analysis: attention to human development as a phenomenon mediated by cultural tools toward teleological ends. Rather, the ZPD tends to be invoked to describe a teacher's provision of instructional support that is gradually removed as learners move toward independent employment of whatever writing strategies are emphasized in the instruction. In this sense, the ZPD becomes all things to all people in that it can account for all manner of instructional approaches in which teachers assist students' learning or use social arrangements such as small groups as primary or intermediate stages during which students develop some writing competency.

My goal is not to criticize such instruction, which I have amply recommended in my own pedagogical work (e.g., Smagorinsky, 2008a; Smagorinsky, Johannessen, Kahn, & McCann, 2010). What I question is the degree to which typical notions of instructional scaffolding represent Vygotsky's broader project to position human development as a tool-mediated process of concept development in its social-cultural-historical context. Rather, I see most scaffolding and ZPD references as deeply underconceptualized in terms of the bigger game that Vygotsky was stalking: culturally mediated human development in all its richness and profundity.

I will next attempt to lay out the issues that I see as important if a Vygotskian claim is warranted in research on writing. I will begin by providing a brief historical review of an old disagreement about the proper focus of writing instruction. Writing instruction has historically centered on matters of form, with such teaching typically falling under the "traditional" banner in discussions of writing. The 1960s saw a seemingly new focus on the *process* of writing, rather than the *form*, and "the writing process" has been a topic of interest ever since. As I will review, however, this dispute between form and process is rooted in distinctions that Vygotsky

provided in *Thinking and Speech* that help to situate the issues historically and help to resolve them for the 21st century writing researcher.

The Process vs. Product Debate

The Anglo-American Conference at Dartmouth College in 1966 stands as among the most generative and influential meetings ever held among English-speaking literacy educators. This conference brought together representatives from the United Kingdom, the United States, and Canada to re-examine the English curriculum in schools and universities. The Dartmouth participants emphasized that the purpose of engagement with an English curriculum—the study of literature, language, and writing—was *to promote the personal growth of individual learners*.

Dixon (1975), one of several participants who authored publications in the wake of the conference, argued that emphasizing texts at the exclusion and expense of the learner did not foster the development of the whole learner. He echoed Vygotsky's (1987, 1997b) concern with instruction that emphasizes mechanics over meaning, saying, "it seems an elementary mistake to demand a list of skills, proficiencies and knowledge as the basis for an English curriculum" (p. 85)—which is how most curricula remain organized to this day. Reacting against teaching approaches predicated on learning skills and a national cultural heritage, Dixon identified a set of tenets that emphasized learners' personal growth:

- Discussions in which students speak to one another about things that matter to them should play a greater role in classrooms. They should allow for *expressive* or *exploratory talk*; that is, discussion in which the process of talking leads to new insights (cf. Barnes, 1992; see Chapter 6 for attention to the process of articulating sense into texts).
- Writing should similarly take on an exploratory character rather than always following formal conventions. The act of writing can thus lead to a *process of discovery* rather than simply reporting correct or approved information.
- The lives of the learners ought to play a central role in their education. Thus their writing might concern personal experiences, their discussions might draw on knowledge outside the range of formal academic knowledge, and dramatic interpretations need to occupy a greater part of classroom time. To Dixon (1975), the curriculum "involves the affective as well as the cognitive" (p. 80).

The Dartmouth Conference participants, urged by representatives from the U. K., thus took one clear side in a fundamental conflict in the theory, research, and teaching of writing⁵. The dominant approach, then and now, was to emphasize correct form in writing. To those who embraced the views that emerged at the Dartmouth Conference, writers find meaning through the process of writing and in doing so experience developmental changes: Writing is a *tool* that enables people to discover meaning by rendering their thoughts, including both those that are well-formed and those that are inchoate, into text. From a

Vygotskian perspective, the conflict emerges from two complementary aspects of speech-based thinking and communication: the importance of the *sign* function of speech—the form it takes to represent meaning—and the *tool* function that considers how speech is used to act on the world. Sign and tool, product and process: These dual functions of speech have been at the heart of many decades' worth of disagreement about how writers should best direct their attention and what teachers in school should emphasize in their instruction.

This dispute in composition studies over the locus of meaning—in the form that writing takes, or in the process through which form is produced—is an incarnation of a clash of traditions that has deep roots in Western thought. Wertsch (2000) discusses two philosophical traditions identified by Taylor (1985a, 1985b) that have informed Western understandings of the concept of *meaning*. Wertsch argues that Vygotsky (1987) appeared to draw on both traditions without recognizing or reconciling their seeming incompatibility (a position Wertsch later moderates while retaining the distinction itself; see Wertsch, 2007, along with reviews of these issues in previous chapters of this book).

Wertsch traces the first tradition to the Enlightenment and labels it the *designative* tradition. In this view, which Vygotsky relies on in Chapters 5 and 6 of *Thinking and Speech*, speech and meaning are concerned with referential relationships between signs and objects, with a key process being one's ability to create abstract representations for categories of objects. People become abstract, rational, conceptual thinkers through their systematic organization of word meanings so that words can be redeployed to account for new situations. Meaning is thus a function of the relation between signs (e.g., words and word networks) and the objects they represent to people. The semiotic potential of such abstraction enables the capacity to categorize, reflect on, and control the world, at least to a degree.

The second theoretical tradition affecting Vygotsky's understanding of meaning is the "expressive" perspective articulated in Chapter 7 of *Thinking and Speech*. Wertsch (2000) grounds this view in Romanticism and its emphasis on the process of speech production through which *sense*—the implicit, condensed, private, psychological associations made with a concept—becomes public and social and thus achieves meaning to the speaker. In this conception, the focus is on *the act of speaking* and the potential of this process for enabling changes in consciousness. In essence, the expressive tradition focuses on the role of psychological processes in human development as speech emerges during the process of articulation (see Chapter 6).

For the designative tradition, the focus is on the finished, public word and the meaning that it suggests. The purpose of speech—both material written speech and ephemeral spoken speech—is thus to represent meaning in an artifactual form, a *sign*, that allows for mediation by either the speaker or other people. From the sign perspective, human development is characterized by increasingly abstract concepts associated with words—to Vygotsky the single *word*, to Bakhtin (1981) the longer *utterance*, and ultimately to Wertsch (1985, 1991; cf. Leont'ev, 1981), *goal-directed, tool-mediated action* that may or may not involve words.

For the expressive tradition, the focus is on the process through which inner speech becomes articulated into public and comprehensible to others and oneself; i.e., as a mediational *tool* that enables one to experience changes in consciousness through the articulation of fluid, condensed thinking in the form of the linguistic signs it produces. Emig (1977) characterized writing as a "unique mode of learning" (p. 122) that educators should emphasize to cultivate students' thinking. Applebee (1981) similarly described writing "as a tool for exploring a subject" (p. 100), contrasting his view with instruction that is teacher- and product-centered. The purpose of speech in this conception is to mediate the thinking of the speaker, with the artifactual form of the speech of only secondary importance as people *write to learn*.

The designative and expressive traditions have provided a framework for viewing the process and product of writing as oppositions (e.g., Wertsch, 2000). Instead of accepting this dichotomy, I will attempt to establish some premises for viewing both the product and process of writing as complementary aspects of a semiotic, meaning-oriented view of composing (a position later taken by Wertsch, 2007). That is, while accepting the seeming incompatibility of the designative and expressive traditions in Vygotsky's writing and acknowledging the bifurcation of process and product in many debates about writing, I will argue that attention to both is essential for a Vygotskian perspective to inform writing research.

THE SIGN FUNCTION OF WRITTEN TEXTS

Signs at the Sentence Level

Problems with sentence-level sign instruction As I reviewed previously, Vygotsky (1987) asserted the importance of having students learn grammatical structures to contribute to their use of linguistic signs in communicatively competent ways. What he does not say is how that instruction can be effectively taught in ways that avoid a mechanistic approach, which has characterized the grammar instruction found by virtually every researcher to test it experimentally to be somewhere between ineffective and detrimental to students' proper language use. Among the most vexing challenges facing teachers is the demand to teach students grammar, both to suit the traditional demands of the domain and to prepare students for standardized tests, so that students learn the labeling skills expected on assessments, learn speech patterns expected in formal settings, and learn to apply grammatical knowledge to their writing.

A further consideration concerns exactly what "correct" speech involves. Although this debate is far too complex to review here, I will briefly review the terms of the controversy surrounding notions of "standard" English or other mother-tongue language. Many linguists, particularly those who identify as *applied linguists* employing a sociolinguistic framework, accept that what Hymes (1974) calls *communicative competence* should be the goal for any speaker.

Communicative competence refers to the ability to work within the local conventions that guide appropriate speech and whatever other gestures accompany or act in place of speech. In school, the conventions established in textbooks govern what is regarded as the true version of the English language.

Yet various speech communities use social languages that might involve other vocabularies, syntactic structures, and other aspects of language use that obtain among social groups and suggest the appropriateness of speech conventions. For example, my daughter, who is well-spoken in the traditional sense, was working as a teenager at a fast-food restaurant taking orders at the drive-through window, when her headset temporarily stopped working, making it impossible for her to convey customers' orders to the servers clearly and efficiently. She exclaimed, "My headset is not responding!" which caused considerable laughter among her co-workers, one of whom offered an alternative way of describing her problem: "If that'd been me," he said, "I'd-a said, 'Shit ain't workin'!"⁶ Teachers of conventional school grammar would have considered my daughter's speech the more correct way of speaking. However, it drew laughter for its formality in this particular workplace environment.

Researchers of diverse cultural groups have studied the syntax used locally and found that it is consistent and rule-bound, although it does not follow the prescriptions of school grammar books. From a cultural perspective, the study of language usage that adheres to consistent, if "nonstandard," rules has challenged notions of "correct" versions of speech emphasized in school. This research has looked at the social-cultural-historical foundations of such language use and how it develops within communities of practice. (See Alim & Baugh, 2006; Young & Tsemo, 2011; and many other sources.)

These communities of practice might be racial in nature, such as studies of African American English (Smitherman, 2000); or might involve the unique language used in courtrooms (Stratman, 1990), academic disciplines (Prior, 1998), or other specialized communities of practice. Such research helps to legitimize what are generally believed to be low-status dialects or to confirm that all language use is situated and oriented to local communication practices. Persistent amidst these claims is a critique of the emphasis in school on a single textbook standard for usage and assessment. These aspects of the sign use of language bear continual investigation and consideration, given the consequences of understanding what Delpit (1995) refers to as the *codes of power* that are in effect in any setting and the need to *code switch*—i.e., to adapt speech usage to local conventions—in order to be viewed as eloquent and acceptable among the social groups with whom one hopes to communicate and avoid the judgment that one's *shit ain't workin'*.

Potentials with sentence-level sign instruction The only means of instruction in syntax that has shown well in experimental research, which is where the teaching of grammar has primarily been investigated (e.g., the meta-analyses of Graham & Perin, 2007, and Hillocks, 1986), are those that are *generative* rather than oriented

to the identification of parts of speech. By generative the researchers mean designed to contribute to writers' management of syntax rather than ability to label parts, as in *sentence combining* exercises. In such instruction, students are provided with a set of relatively short clauses and told to combine them into a single, more compound or complex sentence. Students might be given the following clauses, for instance:

Tyrone went fishing.

He brought along some bait.

A student might combine these two into, "Tyrone went fishing and brought along some bait," or "Going fishing, Tyrone brought along some bait," or "When Tyrone went fishing, he brought along some bait," or any other combination that produces a grammatically sensible sentence employing the two clauses. Sentence combining may or may not include attention to formal grammar rules or labels. The first sentence I have provided uses a compound verb; the second uses a participial phrase; the third uses a relative or adjective clause. Teachers can emphasize particular syntactic structures or let students make whatever combinations they prefer, depending on whether or not they choose to teach a grammatical vocabulary along with the sentence-formation strategies.

Grammarians have come up with a variety of other approaches to teaching sentence structure, although few have been subjected to research scrutiny; see, for instance, Anderson (2005), Ehrenworth and Vinton (2005), Haussamen, Benjamin, Kolln, and Wheeler (2003), Killgallon and Killgallon (2006), Schuster (2003), Smith and Wilhelm (2005), Topping and Hoffman (2006), Weaver and Bush (2008), and other texts for a recent sample, along with special themed issues of *English Journal* edited by Christenbury (1996), Reid (2006), and Lindblom (2011). Most researchers and theorists have simply accepted the exhaustive conclusions of research from over a century that teaching grammar, particularly as an isolated topic, is fruitless. At the same time, most teachers, often under pressure to prepare students for standardized tests but also because they believe in its efficacy in spite of students' annual poor performance, persist with teaching grammar as a discrete curriculum strand. Given the durability of the belief in teaching grammar in schools and the availability of newer approaches outlined by these educators, undertaking newer studies might be merited if Vygotsky's assertion regarding the benefits of having formal syntactic knowledge is true.

Signs at the Whole Text Level

Problems of focusing on whole-text writing's sign aspect Emphasis on writing's sign potential is typically characterized as a "traditional" means of teaching writing. Such an emphasis focuses on matters of form, often in a superficial way. Teachers stress form at both the sentence level by means of grammar instruction,

and at the whole text level through focusing on the organization of paragraphs into a larger body, typically in an “essay” form consisting of five paragraphs: an introduction, three body paragraphs, and a conclusion. Attending to matters of any level of form are enforced by different means of mediation: the emphases of grammar and writing textbooks (Hillocks, 1995), the imposition of form-driven writing assessments (Hillocks, 2002), and the engrained tradition of using model essays as a way of teaching writing (Hillocks, 1986).

Criticisms of form-driven instruction echo Vygotsky’s (1997b) critique of teaching that emphasizes mechanics over meaning. Among the most dramatic is Rosenwasser and Stephen’s (1997) view of the five-paragraph theme as a Procrustean bed, after the Greek myth of Procrustes, the Attican thief who “offers wayfarers a bed for the night, but with a catch. If they do not fit his bed exactly, he either stretches them or lops off their extremities until they do” (p. 44). Similarly, they say, the five-paragraph theme tends “to produce conformity by violent or arbitrary means”:

While it has the advantage of providing a mechanical format that will give virtually any subject the appearance of order, it usually lops off a writer’s ideas before they have the chance to form or stretches a single idea to the breaking point. In other words, this simplistic scheme blocks writers’ ability to think deeply or logically, restricting rather than encouraging the development of complex ideas. . . . The procrustean formula insists upon a tripartite list in which each of the three parts is separate, equal, and, above all, *inert*. (p. 44; emphasis in original)

This notion that the model limits students’ choices and thinking recurs in critiques of the five-paragraph theme and other form-oriented approaches to teaching writing. Hillocks (1986) concludes that instruction that relies on the imitation of models “leads some students to the notion that they must sit down and produce a finished essay without the necessary intervening processes” (p. 228). It can reduce writing to the reproduction of a clearly specified form governed by rules that strictly prescribe minutiae down to the purpose and syntax of each sentence. In such cases attention to and production of this form itself becomes the purpose of writing (Hillocks, 2002), leading at least one student to report that English essays are “supposed to have five paragraphs, a thesis statement, and all that other garbage” (Applebee, 1984, p. 52).

As reviewed in Chapter 5, the culture of school often provides the contours within which instruction unfolds. Johnson et al. (2003) identify a number of reasons why teachers persist with strictly form-oriented writing such as the five-paragraph theme in school. These include:

- *Acculturation to traditions of schooling*: Bazerman (1994) has argued that “The teacher’s history of participation in different situations and developing skill in and affinity towards those genres through which that participation is realized,

prepares and predisposes the teacher to act in ways that have already proved personally successful” (p. 27). Bazerman’s observation resonates with the consequences on teachers’ thinking of their *apprenticeship of observation* reviewed in Chapter 4, which positions teachers to reproduce the school structures that they experienced as students.

- *Ubiquity in textbooks*: The institutionalization of the five-paragraph theme in the most widely-available textbooks for teaching writing reinforces the notion that it is the most efficacious way of teaching students to write.
- *Limitations of teacher education programs*: Most teacher education programs emphasize literature instruction at the expense of writing pedagogy (Tremmel, 2001). This limited exposure is often coupled with a lack of programmatic attention to writing in university coursework, leaving teacher candidates with some techniques for teaching writing but not an overall conception of writing and writing pedagogy.
- *Shortcomings of teachers*: Some attribute the five-paragraph theme’s endurance to teachers’ indolence. Wesley (2000) asserts that “teachers of the five paragraph theme . . . have become complacent in their acceptance of a tool that purports to nurture but, in fact, stunts the growth of human minds” (p. 57). These critics and others argue that shortcomings in teachers dispose them to teach writing in simplistic and reductive ways.
- *Poor work conditions*: Teachers are overburdened with too many students, too little planning time, too few resources, too imposing a bureaucracy, and other limitations that require them to take shortcuts (Lott, 1996). It is thus not inadequate teachers but oppressive teaching environments that produce efficient but presumably intellectually vacuous instruction.
- *Institutional pressures*: Teaching the five-paragraph theme prepares students for mandated writing assessments. The Illinois secondary school writing assessment at the time of Hillocks’s (2002) study used rubrics based on the five-paragraph model, regardless of the domain—narrative, expository, or persuasive—prompted. Further, the severely limited time available for scoring the writing leaves little time for considering the content of a paper as an issue in rating its quality.
- *Potential as a genre*: Dean (2000) describes teachers who, while not regarding it as a panacea, feel obliged to teach the five-paragraph theme and learn “to see beyond the limitations of the form to what else it could be” (p. 54). Dean argues that form-oriented writing instruction can provide students with a structure for generating and expressing ideas in *genres* whose form students can learn to apply and adapt to new writing situations.

In our research (e.g., Johnson et al., 2003), we have found that each of these reasons is plausible except, at least in some cases, for the one emphasizing deficient teachers. Granted, undoubtedly there are some less-accomplished teachers who teach many things poorly, including writing. The focal teacher in our research,

however, was a highly-regarded teacher in a top-tier middle school who nonetheless felt such strong pressure to teach to the state writing test that she dedicated virtually all of her writing instruction to the five-paragraph form (see the references to Leigh Thompson in Chapter 4). In this sense her teaching perhaps provided her students with a useful genre, at least for the setting of the examinations; we have no data on how her students experienced the instruction in terms of providing them with a meaningful rather than strictly mechanical experience. Her case does illustrate, however, the ways in which accomplished rather than dim teachers instruct students in this form without rigorously questioning its merits and deficiencies.

Potentials of focusing on whole-text writing's sign aspect Even though Dean (2000) and others view the five-paragraph theme as a useful genre for teaching writing, others question whether instruction in five-paragraph themes is genre-oriented. Russell (1997) locates *genre theory* within the social, cultural, and constructivist theories that have influenced literacy research since the 1980s (see Nystrand, Greene, & Wiemelt, 1993). From this perspective *a genre embodies social action* (Miller, 1984). This rhetorical engagement is necessarily dialogic—that is, addressed to and in conversation with prior, immediate, and anticipated speakers and readers (Bakhtin, 1981). Criticism of the five-paragraph theme often centers on the very absence of dialogism or social interaction. The form itself is the emphasis, rather than ideas, expression, or communication. In order for teachers to claim that the five-paragraph theme is a useful genre, they need to help writers employ the five-paragraph structure as a means for dialogic expression.

Genre theory focuses on the formal aspects of whole texts, not as simplified essays comprising five paragraphs but as the authentic texts produced within communities of practice. In this sense genre theory has been approached from a Vygotskian perspective that takes into account how and why texts are produced as they are by people with shared interests, manners of speaking and writing, and other factors that give their communicative texts particular forms and purposes. Bazerman (1988), for instances, views the *Publication Manual of the American Psychological Association* as an embodiment of the values of a scientific paradigm for conducting research, as reviewed in previous chapters. His analysis is grounded in the Vygotskian tenets that emphasize how higher mental functions are a result of participation in a community of practice whose social, cultural, and historical ways of knowing are embodied in their artifacts. The APA-style article thus serves as a sign that conveys a particular type of meaning and as a tool through which readers may infer meaning and authors may inscribe it.

Bazerman's (1988) analysis demonstrates how genres that are used within communities of practice—as opposed to the generic five-paragraph structure that is abstracted in a generalized and highly simplified way from broad ways of constructing persuasive texts across fields and domains—embody ways of being in the world. Indeed, the contributors to Bazerman and Paradis's (1991) edited volume illustrate the ways in which methods and means of argumentation vary according

to different value systems. Literary critics, for instance, do not employ all of the classic elements of Toulmin's (1969) template for argumentation, and require belletristic expression if they are to impress other professors of literature with their ideas (Fahnstock & Secor, 1991). Such embellishment is not at work in legal arguments of the sort analyzed by Stratman (1990).

What these studies reveal is the way in which one requires communicative competence of a sophisticated sort in order to write and act socially within genres. Baseball managers arguing with umpires and lawyers engaging in disputes with judges invoke different social conventions that would be ineffective in one another's domains. As Nystrand (1986) asserts, what matters is the degree to which writers or speakers and readers or listeners are *in tune with* one another's expectations for the conventions invoked in particular settings. This question of intersubjectivity—the degree to which different participants share a definition of the situation—is a crucial dimension of the extent to which effective communication is possible.

Different versions of genre theory take into account different factors (Coe & Freedman, 1998). The perspective generally attributed to Australian genre theorists (e.g., Martin, 1993) tends to focus on the textual features themselves and emphasizes the possibility that by teaching these conventions to students, teachers can help apprentice students into new opportunities for advancement. North American genre theorists (e.g., Prior, 1998; Kamberellis, 1999) in contrast tend to emphasize the social action of which text production is one component. From this perspective, attending to textual features alone will not sufficiently prepare novices for participation in the social life represented by textual genres.

Genre theory has potential for taking a Vygotskian perspective to understand how whole texts function in social action. What seems critical is a consideration of textual genres as involving the functions of speech such that they produce meaningful linguistic signs for readers who are in tune with the conventions they require for understanding (see Chapter 6). By studying the social processes that are implicated in the production and consumption of such texts, researchers can assert Vygotskian principles of socially-situated, cultural and historical speech-based mediation to account for the role these texts play in the advancement of ideas and meaning.

THE TOOL FUNCTION OF WRITTEN SPEECH

The conclusions of both Braddock et al. (1963) and the Dartmouth Conference produced an enduring interest in the processes through which people write. In the decades following these landmark events and publications, even as form-oriented instruction continued to dominate schools, many researchers began to study how writers write. In doing so, they focus on the *tool* function of writing: the manner in which writers articulate the ideas that reside in partial and inchoate form as inner speech through written expression (see Chapter 6). Rather than having ideas

formed within and then expressed whole, as presumed in the field of cognitive psychology, from a Vygotskian perspective the process of speaking or writing itself may serve as an occasion for ideas to take form.

This potential has been realized pedagogically in a variety of settings. Many Writing Across the Curriculum programs, for instance, treat writing as a tool for developing ideas, positioning the writing process itself as a cross-curricular vehicle for promoting student thinking. Such strategies as *freewriting* (Elbow, 1973), in which a writer writes nonstop in order to discover topics and develop them, have become widely used in school settings. Indeed, “using the writing process” is regarded by many as an instructional strategy to help students overcome their anxiety about writing and get words on paper without initial regard for its formal appearance.

Simply studying the writing process, however, does not necessarily require a Vygotskian framework. The earliest studies of writing process tended to take a cognitive framework emerging from the information processing paradigm in which cognitive models were developed based on writers’ think-aloud recordings (e.g., Flower & Hayes, 1984 and many others). These models do include a “task environment” that represents the context of writing, but that dimension remained unelaborated in the cognitive models, which were focused on what the researchers viewed as in-the-head cognition (see Chapter 9). In contrast, a Vygotskian perspective would elaborate the task environment as a way to make inferences about the sources of the cognition revealed through the think-alouds, and further would deepen the task environment to account for its cultural and historical features.

In considering writing as a mediational tool in the Vygotskian sense, a researcher would need to investigate what it is that writing is mediating, how the writing itself is mediated, toward what purposes the writing is being put, how those purposes are culturally mediated, the degree to which the writer is in tune with the conventions expected in the setting of composing and reading and understands how to produce them, the degree to which the act of writing ranges from purely mechanical to meaningful, the degree to which writing serves as a cultural tool that mediates human development, the ends toward which that development is anticipated and who is determining that trajectory and for what reasons, and other questions rooted in Vygotsky’s focus on writing as a social, cultural, and historical mediational tool.

A study that my colleagues and I conducted on *academic bullshitting* (Smagorinsky, Daigle, O’Donnell-Allen, & Bynum, 2010)—the process by which a savvy writer can draw on process and genre knowledge to write about topics in which she or he has little knowledge or understanding of content—includes attention to how a writer can use writing to develop new insights through the process of articulation. One dimension of bullshitting involves using writing as a vehicle for developing thought. Perla and Carifio (2006) argue that bullshitting is a necessary stage in the production of new ideas because it involves people experimenting with “various thoughts and attitudes in order to see how it feels to hear themselves

saying such things and in order to discover how others respond, without its being assumed that they are committed to what they say” (n. p.; cf. Barnes, 1992, for his notion of *exploratory talk*).

To Perla and Carifio (2006), then, bullshit “is often a highly dynamic and necessary matrix for the development of expressive, creative, critical and higher order thinking and representation that gives birth to the truth or/and new truths.” In this conception, bullshit is an important developmental stage in the articulation of new ideas, a dynamic experience “that is highly generative (and allows for the thinking and expression of ideas in a less inhibited manner that may not consider the truth or falsity of the expression)” and often leads “to more precise ideas and conceptions that may (or may not be) weeded out by some form of reason, experience, formal testing procedure or logic” (n. p.).

This generative role of writing corresponds to the views that Vygotsky outlines in Chapter 7 of *Thinking and Speech* regarding the potential available for meaning to emerge during the process of articulation. I will return to this issue in the final section of this chapter when I use illustrations from my own protocol analysis studies to demonstrate the unified way in which writing’s *sign* and *tool* use works in conjunction with writers’ *affect*, the next topic that I take up, to produce the *meaning* that is central to Vygotsky’s perspective on what human development is oriented to: culturally-historically mediated, affectively-engaged, meaningful action in social context toward teleological ends.

THE ROLE OF AFFECT IN WRITING

According to Merriam-Webster’s 11th *Collegiate Dictionary and Thesaurus* (2003), *affect* refers to “the conscious subjective aspect of an emotion considered apart from bodily changes.” This definition positions affect as a discrete experience, unrelated to the body it inhabits and world to which it responds. If one rejects the Cartesian division between mind and body, as those working from a Vygotskian perspective do, then this definition is problematic. Rather, one’s emotions are related through tool-mediated action to both one’s body (e.g., sadness producing tears) and the setting of experience (e.g., being in a setting in which crying is or is not appropriate, such as viewing a poignant movie in a theater vs. watching the same movie in a film class where it will be studied in a detached manner). This more distributed and integrated conception of affect assumes that emotion is not a strictly personal or individual phenomenon but works in relation to the settings of activity and in conjunction with the body’s functions (Smagorinsky & Daigle, 2011).

Roth (2007) references Vygotsky’s (1986) observation that the separation of intellect and affect “is a major weakness of traditional psychology, since it makes the thought process appear as an autonomous flow of ‘thoughts thinking themselves,’ segregated from the fullness of life, from the personal needs and interests, the inclinations and impulses, of the thinker” (Vygotsky, p. 10; cited in Roth, p. 40). Vygotsky (1971) was interested in emotions from his earliest efforts to

outline a comprehensive psychology (Yaroshevsky, 1989). Yet Roth finds that for the most part, people taking up Vygotsky's work have often treated thinking as *cold cognition*: thinking detached from any dialectic relation with emotion.

In prior work (Smagorinsky & O'Donnell-Allen, 1998, 2000) my colleagues and I have argued that students' engagement with any particular school class and its activities cannot be disconnected from their broader and more extended affective experiences with school (see Chapter 5). Rather, learners' relationships with texts and school work must be viewed in terms of the vast web of experiences over time, both in and out of school, that they bring to particular classroom episodes—their meta-experiences—and the feelings of affiliation with school that follow from these experiences. Although highly relevant individual classes can help motivate students whose disaffection with school is otherwise pervasive (DeStigter, 1998, 1999), we argue that the degree to which students have developed a deeply-rooted sense of connection with the institution of school itself will often set the stage for how they engage with any individual class or specific activity within a class.

Within any context, whether in the often-disaffecting setting of the school curriculum or elsewhere, writing's emotional dimension is often characterized as pathological. Brand and Powell (1986) observe that in writing research,

When emotion is studied, it is studied as disruptive of the process: writer's block (Rose, 1984), writing apprehension and its academic correlates (Daly & Miller, 1975), writing anxiety (Bloom, 1980; Holladay, 1981), writing apprehension and personality correlates (Daly & Wilson, 1983), reducing writing apprehension (Fox, 1980; Powers, Cook, & Meyer, 1979; Smith, 1984), and measuring writing apprehension with a scale (Daly & Miller, 1975).

Our own work has included a line of inquiry in which students' emotions have played a role in their composition of both verbal and nonverbal texts (O'Donnell-Allen & Smagorinsky, 1999; Smagorinsky, 1997, 2007; Smagorinsky, Anglin, & O'Donnell-Allen, in press; Smagorinsky, Augustine, & O'Donnell-Allen, 2007; Smagorinsky, Cameron, & O'Donnell-Allen, 2007; Smagorinsky, Cook, & Reed, 2005; Smagorinsky & Coppock, 1994, 1995a, 1995b; Smagorinsky, Daigle, O'Donnell-Allen, & Bynum, 2010; Smagorinsky & O'Donnell-Allen, 1998a, 1998b, 2000; Smagorinsky, Pettis, & Reed, 2004; Smagorinsky, Zoss, & Reed, 2006; Zoss, Smagorinsky, & O'Donnell-Allen, 2007). These studies have employed concurrent protocol analysis, retrospective protocol analysis, and stimulated recall to capture the composing processes of writers and producers of other sorts of texts (e.g., drawings, dramatic enactments, and choreography). As our use of these introspective methods of eliciting verbal data has evolved, our attention has increasingly turned from efforts to capture thinking processes apart from affect to a focus on viewing cognition as it relates to both emotional involvement and identity formation.

To Vygotsky, the development of personality is fundamentally dramatic and the phenomenon of art is at its heart psychological, suggesting the necessity of both in the development of consciousness. Vygotsky analyzes this emotional dimension of socially, culturally, and historically mediated human development in several essays and lectures, asserting that “The emotions are one of the features which constitute the character of an individual’s general view of life. The structure of the individual’s character is reflected in his emotional life and his character is defined by these emotional experiences” (1987b, p. 333). In Vygotsky’s (1999) genetic (developmental) approach, “a theory of emotions that excludes the possibility of development . . . inevitably leads us to admitting emotions to be eternal, inviolable, changeless essences” (p. 203). Vygotsky, in contrast, believes that “All emotion is a function of personality” (p. 207), and thus considers emotion and human development to be reciprocally related to one another. He argues that “Our affects make it clear to us that we, together with our body, are one being. It is specifically passions that form the basic phenomenon of human nature” (p. 164).

For Vygotsky (1999) any psychology of the emotions that follows from Descartes’ separation of mind, matter, and emotion “not only bypasses the problem of development, but factually resolves the problem in the sense of a full and complete denial of any possibility of emotional development in man” (p. 205). This view is part of the mechanistic conception of psychology that Vygotsky challenged throughout his career, one in which “The body acts as a soulless robot wholly subject to laws of mechanics” (p. 163) and one that is fundamentally dualistic and intellectualistic and in which feelings are reduced “to a purely cognitive process” (p. 176). In contrast, argues, Vygotsky, “Consciousness must not be separated from its physical conditions: they comprise one natural whole that must be studied as such” (p. 228).

Significantly, these emotions are further related to the setting in which emotional behavior is learned. Vygotsky (1999) asserts that human development is a function of individuals’ volitional, goal-directed, sign-and-tool mediated action in social and cultural context, and that human development is the proper focus of a psychology that seeks a unified understanding of what might be termed a distributed psychology: one in which “mind” is unbounded by the skull and is related through social mediation to historical genres of practical activity and cultural purpose and the immediate instantiations of those practices in everyday action.

Shortly before his death, Vygotsky (1994) adapted the Russian term *perezhivanie* to account for the central role of affect in framing and interpreting human experience. It has been associated with efforts to overcome trauma; its meaning appears to suggest that it is grounded in the process of emotional response to experience, particularly in its regulatory function. Vygotsky employs the term for the dramatic process of the development of personality in everyday life rather than on the stage. He argues that environmental factors are “refracted through the prism of the child’s emotional experience” (p. 339) to help shape a developmental path.

CHAPTER 7

People frame and interpret their experiences through interdependent emotional and cognitive means, which in turn are related to the setting of new experiences. The phenomenon of meta-experience—how one experiences one’s experiences—provides the means through which people render their socially and culturally situated activity into meaningful texts of events (Smagorinsky & Daigle, 2011). Vygotsky (1987c) draws connections between emotions and imagination by asserting that “the movement of our feelings is closely connected with the activity of imagination. A certain construction may turn out to lack reality from a rational perspective. Nonetheless, this construction is real in the emotional sense” (p. 347). To Vygotsky, the goal of psychology is to arrive at a unified conception of the human psyche; “only by approaching these forms of activity as systems,” he argues, can human development be understood (p. 348). To contest dualistic thinking in considerations of mind, he concludes that “both imagination and realistic thinking are often characterized by high levels of affect or emotion. There is no opposition between the two in this connection” (p. 348), leading to the insight that “Imagination is a necessary, integral aspect of realistic thinking” (p. 349), thus linking his conception of art and emotion to the drama of spontaneous everyday life and its role in socially-situated personality development. I next apply these assumptions to writing research that takes into account these factors in conjunction with writing’s role as sign and tool.

THE CONVERGENCE OF SIGN, TOOL, AFFECT, AND MEANING IN WRITING

Several protocol analysis studies I’ve done have produced evidence of a high school writer’s orchestration of the writing process to meet the simultaneous needs of producing a satisfactory product, to generate ideas through the process of writing, to mediate emotions through writing, and to achieve a new realization of meaning through the experience of writing in relation to the setting of text production. I next illustrate these processes with a single writer, originally published as Smagorinsky (1997a), and refer interested readers to protocol analysis studies that have provided related types of evidence (Smagorinsky, Augustine, & O’Donnell-Allen, 2007; Smagorinsky, Daigle, O’Donnell-Allen, & Bynum, 2010). The 1997 study I present features a student named Doug who was enrolled in Cindy O’Donnell-Allen’s high school English class in a different year than were the students reported in publications on which O’Donnell-Allen is a co-author.

Doug referred to the manner in which a written text would provide a set of signs that could potentially serve as a blueprint for constructing meaning. He took great care with his written products so that they would have the greatest impact possible on his readers. His attention to the form of the product fell into two areas. First, he attended to *reciprocal relationships* established between a writer and reader in terms of their intersubjective understandings; that is, the degree to which a reader and writer are *in tune* in terms of a text’s images, emotional message, themes, appropriateness, and validity. Second, he was aware of the *formal considerations* a

writer makes in producing a text, including the structure of its narrative content, the stylistic conventions it follows, the rhetorical effect it might have on readers, and the location of authority in making decisions about formal aspects of writing. I next illustrate how Doug drew on writers he admired for worthy models and how he then integrated the traits he appreciated most in their writing into his own.

Doug's need to connect with and affect his readers motivated many of his decisions as a writer. His understanding of how to craft his writing in order to engage his readers came from his own reading of his favorite writers, particularly country and western singer Garth Brooks. When asked about his affinity for Brooks in the retrospective interview, Doug said that he admired Brooks's ability to communicate directly with an audience, to allow readers to connect with his images and themes, a trait often associated with the country and western genre (Peterson, 1997):

I can definitely see situations that he is talking about and then put them right back on me. He had a song called "Unanswered Prayers." In the chorus [he sings] "Some of God's greatest gifts are unanswered prayers." How many times have I prayed for something and I haven't gotten it, and now I look back and think He knew what He was doing. It is situations like that where the things he talks about in those songs are so easy to relate back to me in my life.

Among Doug's goals as a writer was to affect readers in the same way he was affected by those he admired. He made a deliberate effort to identify writing that he found engaging and incorporate elements of that writing into his own expression. He explained during a retrospective part of his protocol that

I can't read anything that is not funny or amusing. So why should I write something I can't read? And that is something I personally feel very strong about. Because there are so many stories that I have read that, you know, it is one of those things where you read a paragraph and you have to go back and read it again, because you don't even remember any of it, it was so boring. And I just don't understand what kind of state of mind the author is in when they are writing that. I mean maybe it was exciting or interesting to them, but you know, I want to be able to write a story where people can read it through once and absolutely love it, have fun with it, and understand it.

In the protocol Doug went on to read the lyrics to a Brooks song called "The River," which he admired because "Everyone can relate to this song. It is talking about life. It is talking about taking chances. Everybody can relate to it. That is almost a personal goal of mine. I want people to be able to relate to my works." Doug hoped to emulate Brooks's ability to create a thematic effect with which his listeners could connect.

CHAPTER 7

With such writers as Brooks serving as exemplars, Doug in turn tried to move his readers emotionally. On one occasion during the protocol he said, "I actually made a girl in my creative writing class cry when she read that [poem], and you know, it felt good. It was such a neat feeling to know that something I wrote, something that I just wrote down on paper made someone cry." Just as Garth Brooks moved Doug, Doug sought to move his readers. Following his completion of "Casey Bats Again," his sequel to Ernest Thayer's "Casey at the Bat" in which, rather than striking out, Casey hits a mighty home run at the poem's conclusion, he reread the poem and said as part of his protocol,

I really, really like this. I think I accomplished what I had in mind with this poem and that was to create an atmosphere just like the guy that wrote "Casey at the Bat." Try to create the excitement. . . . After I wrote it and went back and read it back to you, even for me, I grew excited. I knew he was going to hit it out, but I was getting excited. Someone that has even read the story can still get excited about it, and that is the way it is with the original one.

This sense of excitement derived from the emotional effect that the poem had on Doug as a reader of his own work. This excitement, he assumed, would be experienced by readers of his poem, just as reading the original "Casey at the Bat" had affected him.

Doug also was conscious of the importance of having his readers share the experiences he was trying to create through their sensory response to his writing. In his Creative Writing class, which he took simultaneous with his required senior class with Cindy O'Donnell-Allen, Doug and his classmates were given an assignment to write "a poem that was supposed to describe a journey or a trip." In his journey poem he labored to create images that would enable a reader to enter the work he was creating: "And I think that is a pretty good quality, quality is the word I am looking for. The good quality, to be able to write so little, but yet make it seem such a long time. Because I want them to picture hours of walking through this tunnel, but I am not going to write fifty pages to depict hours of walking through the tunnel."

Doug wanted to convey to his readership the feeling of experiencing the activity of the primary character in the poem. Doing so required him to create images that produced a sensory effect on his readers, as emerged during his concurrent protocol:

You actually think, this guy is killing a dragon. I mean when I read that, I actually feel, I can hear him talking. I can hear him yelling. It was "without the dragon dropping or anything. I don't know, when I read this, I don't get an image of a dragon dropping or anything. I maybe, maybe I want to revise this to where I give a little more description you know. Instead of saying "without the dragon dropped, still burning to the ground and the fury truly was gone," maybe I want to say, "the dragon twists and turns, fire is leaping from its body, pain

and anguish surround him." I don't know, something like that. I think I want a little bit more description of the dragon dropping to the ground.

Throughout the protocol Doug spoke of his concern with establishing a relationship with his readers based on their shared understanding of the affective qualities of his writing. His efforts to create a potential for meaning through the designative functions of writing revealed his efforts to establish reciprocity with his readers.

In addition to his efforts to create an affective relationship with his readers, Doug showed an awareness of formal conventions, particularly during his revision of "Casey Bats Again." The poem required Doug to constrain his writing by producing identically metered couplets that fit a standard stanza length, and Doug therefore spent most of his time during revision finding words with the proper number of syllables, finding words that rhymed, avoiding repetition of words, and making other changes to the sentence-level form of the poem. The following example from his on-line production is typical (italicized words identify those that he included in the poem; non-italicized words indicate his think-aloud speech produced for the research):

Needs to be a little bit of something in that third line. *Cate didn't make it to second before he tripped.* It would be real smooth if I could say he, before he tripped along the way. I would have to change the rhyming scheme. OK, I can do that. *Cate didn't make it to second before he tripped along the way,* and wouldn't have made it if his life depended on it anyway. And he wouldn't have made it there and wouldn't have made it there if his life depended on it anyway. No, think I will leave it as it is. *Cate didn't make it to second before he, I can say along the way he tripped on the—Cate didn't make it to second for along the way he tripped and wouldn't have made it anyway if his life depended on it. Yes, that is good.*

Doug frequently focused on form during his revision of pieces. One possible explanation is that his "teacher edits" in Cindy's class included attention to mechanics, and so he worked on revision for the purpose of smoothing out surface features. In addition, although both of his writing teachers stressed writing for personal growth, both also required finished products that called attention to the need for polished prose. Another contributing factor was Doug's own desire to have the form of his writing be "correct," at times so that a piece met the requirements that he had chosen and at times because he wanted his finished products to appeal to his readers as much as possible.

Doug produced much of his writing with a readership in mind, and the reciprocity he needed to establish with his readers constrained and affected the ways in which he wrote. On other occasions Doug revealed that he produced a text in order to explore his thoughts and emotions. Most of Doug's use of writing for emotional mediation came in short, discrete pieces that he might or might not

CHAPTER 7

turn in to his teacher, and in which another person's response to the form of the written product was of negligible importance. At times, however, Doug revealed that he shared both concerns simultaneously. As he prepared to write the ending of "Casey Bats Again," Doug said,

You know to tell you the truth, I don't even know how I am going to end this poem. I am getting to where Casey is at the bat, the count is one and one. There would only be a few more pitches, and I still don't know whether I am going to have him strike out again or hit a home run. I'll only know when I get to that point. I will know if it is going to go to the 3-2 count. If it is going to be what I am feeling at that time. Just like in that other poem. It is going to be what I am feeling at that moment. If I am feeling a rush you know, if I am feeling triumphant he is going to hit a home run that is going to be talked about for ages. But if I am down, and I just got some bad news, something like that, he is going to strike out again. And I have no control for that, and I don't know when I will get to. I'm going to have about a half an hour to write tomorrow, I think. I don't know if I will get to that part or not. So I guess Casey is hoping I am in a good mood.

After writing a triumphant conclusion to the poem, Doug said, "Like I said, when I sat down here I was in a good mood. And what'd I say last night? If I am in a good mood, he is going to hit the ball over there, and I am in a good mood, and that is what he did." Doug's use of writing for emotional mediation in his two senior-year English classes contrasted with his reports of his writing experiences in prior years where the five-paragraph essay had been the staple of writing instruction. The emotionally supportive environment of both senior year writing classes appeared to enable him to use writing as a tool for development and to support that instrumental use with the reward of both good grades and good personal feelings from his teachers and classmates.

On several occasions Doug referred to getting a "rush" while writing, saying that he deliberately created moments of discovery by "trying to keep out of my mind what is going to happen in the end." After reading some lines from early in a poem he wrote about a journey, Doug said, "The next stanza starts talking about the dragon coming up. I didn't know that until the two lines into it, 'the quiet now is broken, together with the light.' I still didn't know then that he is going to face the dragon." When the dragon finally appeared, Doug thought that "If there is a dragon here, there can be magic in it. You know, heck, we are using the dragon, why can't we use magic? I don't whether the M or not, but as soon as I thought magic, Merlin popped into my head. 'I looked at left to see a Merlin.'" These moments of insight provided a great deal of emotional satisfaction and heightened engagement for Doug both in his writing and during his recounting of his process.

Doug's senior year English classes thus allowed opportunities for him to experience the expressive functions of writing. His teachers encouraged exploratory writing in ways that his teachers in prior years had not, allowing Doug the chance to use writing as a tool for inquiry and exploration. With the assessment practices of his teachers allowing for students to make choices about what to submit for grades, Doug could, on selected occasions, write without concern for how others would judge the final form. Even within the constraints of form, Doug would periodically write for discovery, even to the point of blocking out possible sequences of events in order to get a "rush" from the moment of production. Writing thus served as an expressive, mediational tool for Doug during his senior class writing through which he produced texts that were sufficiently presentable for his readers to have the responses he hoped to engender.

CONCLUSION

In this chapter I have attempted to explain why I believe that many claims to a Vygotskian perspective are limited by their attention to a history-and-culture-free conception of the ZPD and to propose instead an account that is more attentive to Vygotsky's more important project of developing an integrated developmental psychology grounded in social-cultural-historical understandings of situated mediation. Given Vygotsky's career-long effort to integrate all psychological functions both within the individual's sphere of activity and as situated within the settings of that activity, this integrated approach seems critical to me if Vygotsky is to be invoked to account for teaching and learning processes or writing development more broadly speaking. In Chapter 8 I move this discussion to a more expanded notion of cultural tools that looks beyond Vygotsky's focus on linguistic expression and takes into account other means of mediating human thought.

NOTES

- ¹ *Cuneus* means *wedge* in Latin to describe the wedge-shaped marks left by a reed stylus on clay tablets.
- ² I have no special preference for this version. Rather, it was the one I had available when I wrote this section.
- ³ Again, 21st century readers must recall that Vygotsky postulated his ideas long before remote communication was readily available. Indeed, during my trip to the International Conference on Lev Vygotsky and the Contemporary Human Sciences in September, 1994, at the conference center at Golitsyna, Russia, an hour from Moscow, telephone service was virtually nonexistent, suggesting an even far more primitive state during Vygotsky's lifetime.
- ⁴ "Jaynes asserts that consciousness did not arise far back in human evolution but is a learned process based on metaphorical language. Prior to the development of consciousness, Jaynes argues humans operated under a previous mentality he called the bicameral ('two-chambered') mind. In the place of an internal dialogue, bicameral people experienced auditory hallucinations directing their actions,

CHAPTER 7

similar to the command hallucinations experienced by people with schizophrenia today. These hallucinations were interpreted as the voices of chiefs, rulers, or the gods.”

(<http://www.julianjaynes.org/overview.php>)

- ⁵ I was saddened to learn, while attending a small conference at Oxford University in June, 2011, that the developmental perspective so central to the British “growth model” that was so influential at the Dartmouth Conference has been all but abandoned in the 21st Century, having yielded to the same sort of accountability pressures that affect U. S. schools in this era by emphasizing productivity (products) without attending to learning processes and how they contribute to human development.
- ⁶ Around my house, we now use her coworker’s phrase to describe any dysfunctional situation.

NONVERBAL TOOL AND SIGN SYSTEMS IN A CULTURAL THEORY OF LITERACY

Social-cultural-historical psychology is fundamentally concerned with human development and its mediation toward teleologically-driven social futures by means of cultural tools. Daiute (2010) uses this framework to conduct research on how young people from the former Yugoslavia developed concepts of life following the nation's breakup and the genocide, conflict, and violence that characterized this massive societal upheaval. Avoiding the deterministic interpretation that damaged lives necessarily follow from the survival of threatening environments, Daiute views violent experiences as among a host of mediational means that in turn can be reflected on and reconstructed with additional cultural tools to produce more hopeful and resilient social futures.

Daiute traces her participants' meta-experiences—the manner in which one experiences his or her experiences (Smagorinsky & Daigle, 2011; see also Chapters 6 and 7)—in order to study youth development in violent settings through the Dynamic Story-Telling by Youth (DSTY) workshop. These workshops involved young people in relating and reconstructing their experiences through a variety of writing and speaking activities built around different kinds of persuasive and (especially) narrative writing. Their writing provided a cultural tool through which the participants could think about and symbolically express their feelings about their lives amidst extreme violence.

Daiute offers a situated account of youth development as revealed through their emplotment, within a supportive setting, of lived experience into scripts and genres through the medium of the cultural tool of writing. Her design deliberately employs the creation of a setting that emphasizes the mediational potential of speech to produce new insights, assumes the developmental and mediational role of the workshop in assisting youth in their construction of texts that enable new experiences of prior experiences, and introduces means of mediation through which the participants gain new vehicles for creating agency to contribute to the construction of a future more promising than their pasts would project.

Fine and Fine (2007) also document how youth traumatized by war work through their experiences and construct new trajectories for their lives. The filmmakers focus on the Acholi orphans who live in the remote northern Uganda refugee camp of Patongo. The Acholi have been terrorized since 1987 by the Lord's Resistance Army, a militia that opposes the military dictatorship of Yoweri

CHAPTER 8

Kaguta Museveni. The rebels use guerrilla tactics, including kidnapping children as young as five years old and as great in number as whole school populations, in order to develop them into boy soldiers. Those children who escape and attempt to return home typically find their families murdered or otherwise destroyed and take shelter in the refugee camps, which offer government protection from the rebels. These children, like those Daiute (2010) has worked with, have experienced horrific conditions and brutal terror, particularly those who have been forced to become killers themselves.

Rather than using the verbal means of narrative speech as a way to mediate their experiences with trauma, however, the youth do so through singing and dancing. The film alternates between stories the children tell of their experiences with the rebels and their participation in a national competition of traditional dancing and singing. Although the documentary lacks the sort of analytic power through which Daiute both studied and assisted European youth, it includes segments in which the children talk about how the role of playing instruments, singing, and dancing enables affective mediation.

I open this chapter with this contrast to introduce the idea of multidimensional expression and representation. Both traumatized groups employ mediational tools through which they address feelings developed through their experiences in war. Culturally, however, they rely on different sign-and-tool systems. For the Europeans and the intervening U.S. researcher, speech is indeed the “tool of tools” for mediating traumatic experiences. For the Ugandans, however, the cultural practices of music and dance provide similar potential. The different means of mediation available in the two cultures provide different channels toward the same result: the effective integration of war trauma into the construction of a new and positive life trajectory.

In this chapter I examine the role of nonverbal, tool-mediated action from a Vygotskian perspective. Extending Vygotsky’s project to nonlinguistic sign and tool systems requires some revision and expansion of his own writing. As I have noted throughout, Vygotsky was oriented to the role of speech in human development. Even in *The Psychology of Art*, his focus was on literature (including drama) with only limited attention to other forms of expression and representation (Smagorinsky, 2011a). Using a broader semiotic theory and Wertsch’s extension of Vygotsky’s unit of analysis, however, this extrapolation to nonverbal composing is possible. I will next provide the basis for applying Vygotsky’s views on the primacy of speech in cultural mediation to other sign systems.

LITERACY AS A CULTURAL TOOL KIT OF MEDIATIONAL MEANS

As reviewed in Chapter 7, archeologists who have studied the origins of writing distinguish between language-based texts, whose meaning is predicated on sound-letter correspondence and associations between combinations of sounds and particular worldly referents, and more ambiguous texts such as cave wall paintings

(Woods, 2010a). The term *literacy* itself is from the Latin term *litteratus*, which means *marked with letters*. Strictly speaking, then, references to literacy ought to involve facility with language-based symbol systems.

And yet, as I will review shortly, the field is flush in the early 21st century with references to new literacies, 21st century literacies, multiliteracies, digital literacies, and other constructs that emphasize the means of communication now available, particularly (but not exclusively) afforded by technology. Theorizing this development is important if one is to conduct research from a Vygotskian perspective while moving far afield from his own cultural conditioning that helped to produce his conceptual focus on speech, and from the relatively primitive technologies available to him in the early Soviet Union.

As researchers of the origins of writing have noted, multimodality existed long before the emergence of language-based scripts. Since these original symbolic depictions, people have engaged in what Suhr (1983) calls *transmediation*—the interpretation and expression of meaning across sign systems—spanning the range of human expression. Composers have written music to accompany *Romeo and Juliet*; poets have written odes on Grecian urns; painters have produced interpretations of literary characters; dramatists have taken old stories and produced them theatrically in new form; old plays have been brought to the stage and screen with new embellishments such as song and dance; and so on. The digital age has provided a new impetus for exploring what is now available technologically, but the idea of working semiotically across sign systems is ancient and venerable across many cultures. If “new literacies” involve the use of technology in many forms, then “old literacies” involving nonverbal sign systems have predated them by many millennia.

John-Steiner (1987) has long been interested in the mediation of thinking through nonverbal means. Her study of people with fertile creative minds—particularly, artists and scientists—demonstrates the “notebooks of the mind” employed by people whose texts involve nonverbal sign systems. Focused on their creativity, their emotional involvement in their productive work, and their means of thinking nonverbally, she documents the manner in which their trailblazing follows from sustained effort as channeled by cultural genres, social interaction, the scaffolding available during apprenticeship relationships, and other factors indicated by a Vygotskian analysis. Her study sheds light on people’s ways of thinking productively through nonverbal means. Such cognition serves as situated action in social contexts in which nonverbal sign systems are involved in the formation of culturally-appropriate higher mental functions.

Vygotsky’s semiotic approach was concerned with the representational capacity of speech. Wertsch (1985, 1991) in particular has argued that this linguistic focus was among the limits of Vygotsky’s formulation. First, he maintains, the word is too limited even if the focus is on speech; he views Bakhtin’s notion of the utterance—a speech segment that conceivably could include whole novels—as having greater potential for serving as the unit of analysis for understanding human

concept development. Drawing on Leont'ev's (1981) shift of the unit of analysis from word meaning to *activity*, Wertsch further redefines the appropriate unit of analysis for understanding human concept development to be goal-directed, tool-mediated action, which I assume to include the axioms that this action is *volitional* and *socially-situated in a cultural-historical context* in order to produce *meaningful texts of events* that may be material or, in Vygotsky's terms, *ideal*—that is, abstracted products of the imagination (Smagorinsky, 2001).

Wertsch's (1991) reformulation enables him to assert that a semiotic perspective allows for an expansion from speech to a *cultural tool kit of mediational means* (cf. Witte, 1992). This broader notion of semiotics both enriches and complicates efforts to understand literacy. If literacy indeed refers to letter-based forms of representation, then Vygotsky's original perspective is appropriate, even though Roth (2009) sees Vygotsky's perspective suggesting that language is “but one sign form that is subordinated to the more general motive of communication” (p. 295). Only by viewing texts in the manner I outlined in Chapter 6—that is, as composed of configurations of signs with a meaning potential—can literacy be understood as available through multiple sign systems. That is the perspective I take in this chapter: that literacy, historically moored to letters, may be considered as part of a broader cultural tool kit through which meaning may be conveyed.

The idea of an expanded tool kit of mediational means has become available through a variety of perspectives, not all of which are amenable to a Vygotskian analysis. I will review those that are the most widely referenced in current educational scholarship. Through this process I will attend to what their advocates foreground in promoting them as new ways of thinking about cognition. My intention is not to assert which are “best” in accounting for the role of multiple sign systems in human communication. Rather, it is to distinguish among them so that what is available through a Vygotskian analysis, as opposed to what is available through other perspectives, is clear.

Gardner's Theory of Multiple Intelligences

Howard Gardner (1983 and subsequent revisions and updates) proposed that people throughout history and across cultures have relied on a small set of “intelligences” or ways of thinking. To Gardner, people pose and solve problems through language, mathematics and logic, spatial relationships, interpersonal ability, intrapersonal reflection, bodily and kinesthetic movement, music, and naturalistic inquiry. He notes that others have parsed modes of knowing into more highly refined categories involving complex matrixes, but has settled on these vehicles as the primary ways to account for human cognition. Perhaps the relative elegance of his theory of multiple intelligences has made his version of this perspective the most popularly known of the various efforts to sort cognition into categories; it is surely the one most amenable to representation on a poster in a school guidance counselor's office.

Although he does attend to cultural factors in which intelligences become foregrounded in a society—he notes, for instance, that spatial intelligence is particularly useful for navigating the ocean at night, a problem to which musical intelligence would contribute little—he locates one’s intelligence primarily as a hard-wired phenomenon. That is, he does not view the culture of seafaring as a mediational setting that directs the development of one’s higher mental functioning toward a spatial orientation, but rather sees this profession as being particularly appropriate for those with this inborn capacity to make sense of the world through an understanding of its spatial relationships. John-Steiner (1995) has attempted to revise Gardner’s views for better alignment with a cultural-historical perspective, but Gardner’s work is more focused on one’s native “intelligences” and what they enable in various worldly endeavors.

Multimodality

Multimodality is often associated with the work of Günther Kress. Kress (2004), describing his approach as one predicated on *social semiotics*, emphasizes

multimodality, which deals with all the means we have for making meanings—the modes of representation—and considers their specific way of configuring the world. . . . Each mode forces me into making certain kinds of commitments about meaning, intended or not. The choice of mode has profound effects on meaning. . . . Meanings are always disseminated through particular media: the medium of the book; or the medium of the CD-ROM, involving still and moving images, speech, writing, cartoon-like characters in comic strips, music, and so on. It might be the medium of the teacher’s body, involving speech, movement and gesture. All media offer specific possibilities to the designer, and to the reader/user in their reading and/or use. The approach from Social Semiotics not only draws attention to the many kinds of meanings which are at issue in design, but the “social” in “Social Semiotics” draws attention to the fact that meanings always relate to specific societies and their cultures, and to the meanings of the members of those cultures. Semiotics takes the sign—a fusion of a form and a meaning—as its basic unit. In making signs we—embedded in our cultures—select forms in such a way that they expresses the meanings that we ‘have’ always ‘aptly’; hence signs always express, through their form, the meanings that the makers of signs have wished to make. (n. p.)

In this perspective, different modes provide particular sign configurations whose conventions must be read according to unique strategies. Kress emphasizes the social nature of such reading and how cultures foreground particular signs and meanings (see Chapter 6). The locus of attention in his conception is on the *mode of representation*. He is concerned with how modes cue particular ways of

CHAPTER 8

attending and reading and how different social settings refine which codes are salient and how to read them. He stresses the need for readers to have strategies that enable them to grasp “the meanings that the makers of signs have wished to make.”

He thus elides Wimsatt and Beardsley’s (1946) concern for the *intentional fallacy*, the belief (which they contest) that a literary work’s author’s intended meaning is the primary meaning available in a text. Kress is perhaps concerned with texts embodying a less ambiguous meaning than is available through literature. A textual mode’s potential for its author’s inscription of meaning, however one interprets author intentionality, and a reader’s consonance with textual signs and ability to read them as inscribed, appear to be the concern of a multimodal approach.

Multiliteracies and New Literacy Studies

Multiliteracies and New Literacy Studies are typically traced to the work of the New London Group, which included Kress among many others (1996; cf. Cope & Kalantzis, 2000). I read this work as having a sharp political edge in that it views the role of literacy in an economy that changes rapidly. With technology bringing nations potentially closer together in a virtual space, cross-national communication becomes increasingly important, and the modes through which communication is achieved become a center of attention, especially those that are digital or electronic.

As does attention to multimodality, the multiliteracies and New Literacies Studies movements are grounded in a semiotic perspective on text construction and consumption. In order to be responsive to the changing world and to provide greater opportunities within it, the New London Group (1996) recommends that educators take up the following practices:

Situated Practice: Immersion in experience and the utilization of available discourses, including those from the students’ lifeworlds and simulations of the relationships to be found in workplaces and public spaces.

Overt Instruction: Systematic, analytic, and conscious understanding. In the case of multiliteracies, this requires the introduction of explicit metalanguages, which describe and interpret the Design elements of different modes of meaning.

Critical Framing: Interpreting the social and cultural context of particular Designs of meaning. This involves the students’ standing back from what they are studying and viewing it critically in relation to its context.

Transformed Practice: Transfer in meaning-making practice, which puts the transformed meaning to work in other contexts or cultural sites. (p. 88)

By engaging students with the political, social, and economic issues that are implicated in the development of new technologies, the authors believe that young people will gain access to the communicative demands of work, power, and community, and will develop means for the “critical engagement necessary for them to design their social futures and achieve success through fulfilling employment” (p. 60). As such this perspective involves a *theory of power* that accompanies such frameworks as *critical theory*. These “new literacies” scholars accept Kress’s premise that understanding how to design and read culturally-laden semiotic signs is a critical social skill, and emphasize the manner in which control over, access to, and ability to produce texts has an impact on one’s potential for having power, agency, and self-determination in society. Although their work includes little data analysis or empirical support, the New Literacies Studies movement has become a common scholarly reference for efforts to broaden literacy to include multiple modes, particularly those available through emerging technologies.

21st Century and Digital Literacies

Attention to 21st century or digital literacies is obviously a recent invention. It is concerned with understanding how people engage with what is afforded by new and emerging technologies. According to a 2008 position statement by the National Council of Teachers of English,

Literacy has always been a collection of cultural and communicative practices shared among members of particular groups. As society and technology change, so does literacy. Because technology has increased the intensity and complexity of literate environments, the twenty-first century demands that a literate person possess a wide range of abilities and competencies, many literacies. These literacies—from reading online newspapers to participating in virtual classrooms—are multiple, dynamic, and malleable. As in the past, they are inextricably linked with particular histories, life possibilities and social trajectories of individuals and groups.

Twenty-first century readers and writers need to

Develop proficiency with the tools of technology

Build relationships with others to pose and solve problems collaboratively and cross-culturally

Design and share information for global communities to meet a variety of purposes

Manage, analyze and synthesize multiple streams of simultaneous information

Create, critique, analyze, and evaluate multi-media texts

Attend to the ethical responsibilities required by these complex environments

This approach addresses the changing landscape of digitally-mediated communication and emphasizes the need for schools to be in step with technology so that students are prepared to participate in the worlds that await them outside school. It thus views fluency with new and emerging technologies, particularly as they involve attention to sounds and visual images, as central to current communicative competencies and the economic advantages that they afford.

Vygotsky's Theory of Tool-Mediated Human Development

Each of the perspectives I have outlined shares an emphasis on the multidimensional aspects of literacy, although Gardner's interests are more historical than immersed in 21st century attention to technology. Wertsch's (1991) expansion of Vygotsky's focus on word meaning to a cultural tool kit of mediational means resonates well with each of these emphases. Where I see Vygotsky's work departing from the perspectives I have outlined is in his *genetic method*; that is, in his *fundamental emphasis on human development*. Vygotsky does attend to such issues as how texts are produced and read, as he outlines in *The Psychology of Art*, although he did not anticipate the sort of digital texts that figure so prominently in the work of those reviewed above outside Gardner (1983). Vygotsky's interest in semiotic mediation, however, concerns its role in human development, particularly as an individual employs cultural tools (particularly speech) to mediate development within culturally-channeled, proleptically-encouraged, historically-grounded contours toward the social future anticipated by this societal structure and its practices.

This developmental emphasis appears distinctly Vygotskian amidst other perspectives on nonlinguistic composing. Although a theory of power may be employed in conjunction with Vygotsky's developmental emphasis, considering power relationships was not his primary concern. One might argue, for instance, that notions of motive that govern a setting may advantage and disadvantage particular groups of people in given social settings, as Moll and Greenberg (1990) have done in looking at the experiences of Mexican immigrants to Arizona. However, given that empowering citizens in their socio-political-economic advancement ran counter to the communist system in general and to the totalitarian leaders who rose within it in the Soviet Union in particular, such a perspective might only have hastened Vygotsky's death had he proposed it and used it to critique Soviet officials.

In the remainder of this chapter I provide examples from my own work on students engaging in nonlinguistic composing in school in ways that meet Vygotsky's criteria for mediating development through cultural tools. In doing so I do not dismiss or discount the other emphases I have reviewed. Rather, I try to illustrate what is available through a Vygotskian analysis, at least as afforded through my own studies. In Chapter 6 I used examples of students' artistic interpre-

tations of literature and citizens' responses to the public symbol of the Confederate flag to illustrate acts of meaning construction, and these examples could further serve my purposes in exploring what is involved in a cultural tool kit of mediational means. I shall turn to a different set of studies to illustrate my points in this chapter for the purposes of using fresh examples and to enrich my general exploration of Vygotsky's work as it informs literacy practices across the spectrum.

MASK-MAKING IN A SENIOR ENGLISH CLASS

The first study I will review concerns a Native American student, Peta, who constructed an "identity mask"—a plaster mask contoured to each individual student's face, on which he or she created images that represented personal identities—in the context of a unit of instruction on identity in the classroom of high school English teacher Cindy O'Donnell-Allen (published in Smagorinsky, Zoss, & O'Donnell-Allen, 2005; see Zoss, Smagorinsky, & O'Donnell-Allen, 2007 for a study that examines Peta along with two other classmates and their mask productions. Students from Cindy's class are also featured in Chapters 6 and 7). His production of his mask included attention to the facets of a Vygotskian framework that I have emphasized in previous chapters: It employed culturally-channeled signs orchestrated to produce a unified meaning to its "readers"; the experience of producing it and the final version of the text contributed to the construction of new meaning and provided a text through which he could engage for further reflection; and his production of the text enabled the mediation of his emotions such that he was able to express and regulate his affective framing of and response to his experiences.

Peta's mask composition was among the very last assignments he completed before dropping out of school because of his ill fit with other students and with the absence of opportunities to invest his schoolwork with what he found important in life. He said at one point,

It's kind of weird how I see school work and my work, and it's—I mean everybody else sees it, you know, when you put this much effort in this, why can't you put this in school? . . . I enjoy being in [Cindy's] class. . . . It's more the people. It's like if you have—and I imagine you do, uncreative, unmotivated people working around you, you tend not to be that way with yourself. . . . It's really hard to do stuff when you're in a group, and you're the only one doing it. And everybody else just doesn't care.

Peta's reasons for leaving school concerned its general irrelevance to the Native American issues that occupied him and the lack of urgency about their lives that he perceived in his classmates. Ironically, he was too serious a student to find school worth spending time in. Cindy's class, with its artistic dimension and emphasis on personal meaning, provided a rare respite in the tedium and insignificance of his school day.

The mask activity took place as part of a unit on identity. Prior to the activity students had bought and begun to use writer's notebooks (places where they could draft or sketch ideas), learned to keep double-column reading logs in response to their literary reading, started to keep writing portfolios in which they reflected on their identities as writers, constructed life maps that represented landmark event on life's journey (see Smagorinsky, Anglin, & O'Donnell-Allen, in press, for details), explored significant childhood memories, and used mirrors to sketch out how other people saw them and how they saw themselves.

For the mask activity the students were told that "masks serve as identities because when you put on a mask you become what the mask represents—we become our mask." After seeing completed masks and the process of making them, the students worked in pairs to create their own masks. During the next class session Cindy modeled how she had used her own writer's notebook to create a cluster of experiences that represented her sense of identity. She encouraged students to "Think of some qualities that make up your character," telling the students that they could either do a cluster or a more conventional outline. She then explained how she had moved from the cluster to her mask, thinking about such things as color, placement, and symbols. Students spent the remainder of the class thinking and talking about how they might use images on their masks, and then symbolically inscribed the masks during the following class. Peta was absent on this day but composed his mask at home. When he returned to class, he provided a retrospective protocol about his process of composition. [Figure 6](#) features the mask he produced.

Our analysis focused on aspects of Peta's composition process that contributed to his design process, his self-selected goals for the mask (particularly in terms of how his composing process both represented and contributed to his understanding of his life's meaning and his development of an identity), the emotional and spiritual realizations he came to through his composition, and the symbols and images he used to represent these issues on his mask. Each of these facets is central to a Vygotskian analysis of literate engagement in school, if Wertsch's (1991) cultural tool kit of mediational means may substitute for Vygotsky's emphasis on word meaning as the unit of analysis for genetic (developmental) research.

Design Process

Peta's design process reveals an emergent approach to his mask design. That is, he did not plan his design ahead of time and then execute it wholesale, but rather engaged in planning as his conception of the mask unfolded. The following exchange, for instance, reveals that he began with a sketch on the mask's surface as part of what we called a *materials-based process*: a design approach in which planning emerges through engagement with the materials of production rather than being conceived of prior to beginning the formal composition. Such an approach tends to produce a *provisional text*, i.e., a draft of the composition that inevitably will be

reconsidered through a process of reflection and revised or extended through further materials-based decision-making. Peta described this process as follows:

Peta: It's just very—it was a very loose composition. Like you could see where I put a pencil here.

Q: Yeah. So you did actually sketch some of this before you painted it?

Peta: Yeah.

Q: Did you do that with all of that or just some of the parts?

Peta: I did it with the vines, but I didn't do it with the leaves. I just did the root of it. There where the red is. That's basically all I did, and then with this [points], I just went like that—a little like spike circles or something. And then with this [points], I just did like that so I could follow a basic pattern, but not really. I didn't keep to it.



Figure 6: Peta's mask

Such an approach relied both the *tool* function of drawing and on a *formative evaluation*, Peta's in-process assessments of his provisional texts as a way to determine his next action, suggesting his work in the expressive tradition in which the process of articulation is generative in the development of new ideas.

CHAPTER 8

Peta also engaged in what we termed *nonlinear thinking*, which Allen (1987) argues is more likely among Native Americans than Westerners, suggesting that Peta's work on the mask involved a type of cultural mediation that made his cognitive work out of step with that customarily required in school. When asked what the blue drops of water stood for on the mask's forehead, Peta said, "It's just sort of how I was representing the—when you're thinking, you're not thinking, you know, linear or anything, it's just—it's not one thing, it's like multiple things, and it's like the rain of ideas and thoughts just happened to be going on." This approach was consistent with his materials-based approach to design in which he was not bound to a plan but made new decisions as his design emerged. Like the writer Doug featured in Chapter 7, Peta used his process of composition as a vehicle for developing new ideas, relying on nonverbal articulation rather than on the emergence of ideas through speech.

Further, Peta used writing as part of his design process. His mask composition was part of a multimodal exploration of self, one in which he produced a poem in conjunction with the mask. He wrote the following, for instance, after completing his mask, saying that it put into words some of the ideas he was trying to express through his mask:

So its people have many faces to get to the meanings of some unknown point and find a marker that are within the words of this saying. With all of your nice guys' and gals' faces of innocence smiling with such a lie that you think can't be seen, but I have lost my ignorance and refuse to play the drama of joy and misery, for I am my keeper and the thrilling fluid binds my words. With the pouring and beating drops of my mind raise up a rage from deep inside, and you will find a stream of flash and flood of imagery coming down on your sleeping mind, and if you hit the sleep bead on man's simple machine, then you shall get and deserve a little silence.

Peta read this poem aloud, explaining that "You notice I didn't let you read this? I read it to you. I almost—I used to let people read it, but then people would talk to me about it and they would take it in a different point, which is perfectly fine. But when I write . . . I want them to get how *I* mean it, so I read it to them." Because he intended to read his writing for others, and because his performance relied on the reaction of his audience, he said that he "wrote *pause* at the bottom" because he "was just going to like look out or look at whoever I was reading it to" to determine how to proceed.

These various processes suggest that for Peta, his mask composition was nonlinear, emergent, and interactive. Given the generally linear ways in which U. S. schools work, his decision to drop out of school and focus on his Native American community's ways of engaging with the world is not surprising in terms of his school's limited, logocentric avenues for thinking and acting, Cindy's class notwithstanding.

Goals

Most of Peta's goals for his mask were personal: to communicate, express himself, embody his identity, convey meaning, and project himself into his mask. These goals suggest that for the most part he saw his mask design as a personal project in which he was highly invested. He had a history of spotty school attendance, erratic effort on assignments, and tenuous commitment to school. At the same time, he revealed himself to be a serious, thoughtful, and committed young man in relation to issues that concerned him. School in general, however, provided few opportunities for engagement in what he found important. The mask activity in contrast commanded his attention and interest. He missed a number of classes after making the plaster mold, but then completed his composition at home, a rare occasion when he spent time outside school on teachers' assignments. Later, he returned to class to discuss his completed mask with me in my role as researcher, again showing an unusual commitment to completing this task and seeing it through for the research.

Peta's work on his mask embodied a series of goals that are revealed through the following exchange:

Q: Why is your nose yellow with a kind of a red triangle or pinkish?

Peta: Because that is how I was wanting to represent the inner rage.

Q: The yellow is rage?

Peta: It's coming from—you know, sometimes when you get mad, you have pressure that's like right here.

Q: Up between your eyes?

Peta: Yeah. And I put it around the brow.

Q: Uh huh. Is that why the nose is yellow?

Peta: Uh huh.

Q: So that's where you feel it coming—is it coming out or is that just where—or does it stay there?

Peta: It seems to like—it kind of feels everything else. It's, I guess maybe—yeah, it just kind of feels everything else. It kind of—it sets things in motion. Of course, by thinking about it and expressing it and all that stuff, it cools it down.

Q: Is that what your point of the forehead, does he say that?

Peta: Yeah.

Q: And that's a—

Peta: So you actually think it over and all. And like in my poem when it says with pouring and beating drops of my mind raise up the—I guess the rage from deep inside.

Peta hoped that through his mask design he could communicate aspects of his experiences and emotional makeup to people, such as feelings of rage. Expressing these feelings through the mask helped to mediate those emotions so that the process served to cool down his anger. Peta's comments illustrate larger issues of identity and projection. Gee (2003) describes what he calls a *projective identity*, which employs two senses of the work "project": "to project one's values and desires onto the virtual character" in a video game and to see "the virtual character as one's own project in the making." This virtual character is "imbue[d] with a certain trajectory through time defined by my aspirations for what I want that character to be and become" (p. 55). From an identity standpoint, Peta's mask symbolically depicted his identity as a person whose experiences had caused him to develop a "rage from deep inside." His ability to represent this rage in the mask indicated his projection of himself onto the mask and his use of both the process and product to mediate his emotions.

Emotional and Spiritual Realizations

Peta's mask also served as a *spiritual mediator*; that is, as a way to express his broader connection to the earth, an orientation that Jacobs and Jacobs-Spencer (2001) maintain is central to a Native American outlook. In describing the vine that he inscribed on the mask, for instance, he said,

Peta: I tried [inaudible] leaf covering my mouth. It's just, I guess, the way I write and stuff. I bring it out, it's kind of entwined . . . and fluid, and it just seems natural—the vine. And I've got the leaf as my lips.

Q: As I look at it, I'm wondering, it doesn't look as though the leaf is, say, covering up to keep you silent. Is that—or is it intended as something you can open?

Peta: That's kind of how it looks, but that's not really how I intended it. I just made the vine red because—and it's like a life that was kind of entwined through it all.

Peta's mask included several symbols representing his spiritual connection with the earth. He said, for instance, that "[The reason] I did brown is because it's earth tones. . . . And it just happened to be the color of my skin, but it's, it has nothing to do with my skin." His decisions about how to depict his life on the mask, then, were designed to convey both emotion (e.g., rage) and simultaneously to manage those emotions (to cool the rage). He further represented his spiritual connection with the earth and the whole of life. Indeed, his relationship with the earth

involved few if any of the adversarial emotions that followed from his interactions with his (mostly White) schoolmates whom he abandoned with his decision to leave school.

Symbols and Images

Peta used color (such as brown to represent the earth) and nonfacial features (such as the vine to represent the interconnectedness he saw in life) to depict central aspects of his Native American identity. He further used colors and natural elements to express his emotions. When describing the blue drops of water on the forehead of his mask, for instance, he said that

I wanted that to look like a rain image and I wanted the purple—since I had already used blue for the rain, I wanted the purple to give it sort of a mellow because the way I think. The way I actually think is pretty calm. The way I feel is very, I guess, sort of—I wouldn't want to say violent, but it's kind of that degree.

Peta further used a curvilinear element throughout his mask design, again as part of his effort to symbolize his relationship with nature. To explain his inclusion of “a lot of swirls. . . a lot of circular motion,” he said that “Chaos is very circular. And randomness is very circular. So it's just kind of—I guess nature is kind of chaotic.” These decisions reflect what I see as interevocations (see Chapters 5 and 6), the juxtaposition of images in understanding his life narrative and the representation of these images symbolically in his mask.

In addition to using symbols on his mask, Peta included images, particularly those derived from the narratives he constructed from his life experiences. He was asked, for example, about his use of yellow, red, and different shades of green in the composition. He replied,

Peta: It's like the sorrow and the envy and the pain that—I mean we all go through certain things and I feel that I have experienced many things to give me insight on a lot of—and it kind of reflects on how I write. And I've always noticed that, you know, you get that sort of ache when you hurt? And I've always noticed that it's been stronger like on my left side.

Q: Interesting. Is that what the sharp images are?

Peta: Yep. I guess that it could be it. Yeah. It's sort of the pain and emotion. It's always very—like I said, I was—the way it—is always strong. I guess I always go to extremes on how I feel like being extremely happy or extremely angry.

Q: Uh huh. Is that all on the inside, because you told me that you have kind of mellow outer appearance, and that's mostly what I see.

Peta: Yeah.

Q: But inside, there's a lot more going on than you show?

Peta: Yeah. But it doesn't bother me because I can write about it.

Peta engaged in a variety of identity-developing thought while composing his mask. He drew on the narratives of his life story to depict emotions through symbols such as color and shape, often using writing in conjunction with his art to work through his broader identity project as part of his broader developmental process. In enabling such important work, the mask project and other activities in Cindy's class were among the few academic assignments that he found worthwhile in school.

DESIGNING RANCHES IN AN EQUINE AND MANAGEMENT AND PRODUCTION CLASS

The second study I report is part of a trio of studies I conducted in high school classes that were predicated on nonverbal composing. These studies involved students producing design plans in an Architectural Design class (Smagorinsky, Cook, & Reed, 2005), a home economics class focused on Interior Home Design (Smagorinsky, Zoss, & Reed, 2006), and a course in Equine Management and Production (Smagorinsky, Pettis, & Reed, 2004). All three courses were taught in the same year in the same high school in the Southwestern U.S. In each class students were evaluated on their production of a drawing or set of drawings of the spaces that they designed to suit the content of the course.

In this chapter I will select one study from this set to illustrate the manner in which the students' process of drawing served as a mediational tool to represent matters of personal identity and values. Simultaneously, the students were tasked with producing a finished text designed so that a reader knowledgeable with the textual codes of the field could interpret it and put it into action: to build a house, to design an interior, to construct a horse ranch. I will present the findings of the study of students' design of horse ranches, largely because it involved two participants with very different inscriptions of meaning in their texts, while the architectural and interior design studies involved single case study students.

The culminating project for the semester in the Equine Management and Production class was for students to synthesize all of their knowledge of horses in the design of a horse ranch that they might conceivably own some day and that would operate at a profit. The project took roughly a month of class time and required that the ranches must occupy 320 acres of land at a specific location within the state, stay within a budget of \$750,000 (a figure that inflation would surely raise for current such projects, particularly in more expensive regions), and suit a particular breed of horse. Students were required to design their stalls and training facilities according to the type of horses that they intended to raise—horses for

training, performance, breeding (mares), or stud (stallions)—and needed to include space for trucks and trailers to transport the horses. The ranch also needed sufficient fenced pastures to exercise, graze, or “turn out” horses for extended periods of time; i.e., allow them to roam freely within an enclosed area.

The students inscribed their compositions with meaning, particularly in the ways in which their design decisions embodied narratives of how they, their families, their horses, and their clients would use and navigate the grounds and facilities. The meanings that they inscribed in their compositions revealed much about how they positioned themselves in relationship to others involved in the ranch operation and more broadly in society, suggesting that their ranch designs were as much about their own conceptions of selves as they were about horses and their production. As such they served the developmental role so critical to a Vygotskian perspective, involved representation through the designative function of the particular signs required in this discipline, and produced new understandings through the process of composing. They further enabled some emotional mediation, although not as clearly and explicitly as that reported in other studies I have conducted and reviewed in these chapters.

Problems Involved in the Ranch Designs

The research sought to understand the problems the students identified that they needed to solve in order to produce an economically viable horse ranch, and the processes they went through in order to solve them. The general problem that volunteer participants Darin (see [Figure 7](#)) and Riley (see [Figure 8](#)) worked to solve was outlined in the assignment that Raymond presented to them and their classmates. The ranch needed to provide everything required for the profitable production of the horse breed each student selected to focus on: fenced pastures, barns with stalls, storage areas for equipment, veterinary facilities, breeding facilities, roadways, parking, etc.; and whatever specialized features a particular breed might need: a race track for thoroughbreds, training areas for show horses, and so on. The task therefore was situated within the overlapping cultures of establishing a business in what at the time was a difficult economy, the values of different horse producing communities, and the particular life narratives that each student brought to the task. These cultures provided the contours within which they composed their ranch designs and implied the endpoints toward which they worked.

Within this defined yet open-ended task, students identified their own problems to solve depending on the breed of horse they chose to produce and their goals and experiences that guided their compositions. I next describe the primary focus of their attention as available through both concurrent and retrospective protocols that they provided for the research.

CHAPTER 8

Economics of Ranch Operations

The students' ranches needed to function successfully as a business enterprise. This focus was realized in both their attention to the cost limitation of the project and their sense of functional economy, particularly in terms of configuring the ranch's various elements to minimize movement from one area to another and thus contribute to the efficient operation of the business. In the following section I review the kinds of economic problems the students identified and solved as they produced their designs, including their efficient execution of tasks, the upkeep of the ranch, the storage of equipment, and the income generated by the ranch. These goals were in line with what a successful horse industry entrepreneur would work toward in a real-world business environment. The design task was thus situated within a culture of economy both in expenditure and movement to maximize opportunities for productivity in this setting.

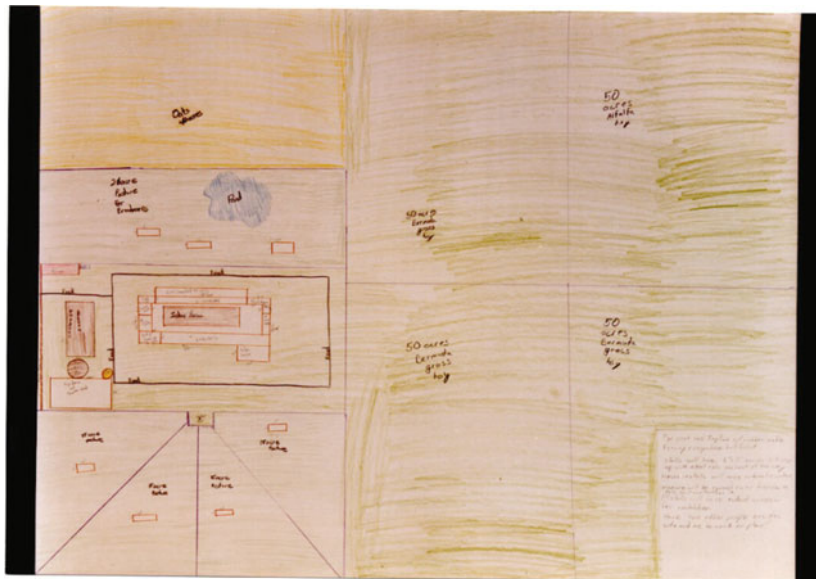


Figure 7: Darin's ranch design

Efficient execution of tasks Darin and Riley were concerned with designing their ranches to enhance the efficient execution of work related to their particular ranch operations. In doing so they were attentive to the economic context for their work as horse ranch operators. Riley, for instance, included a training track for both thoroughbreds and quarter horses in his design designed to produce racehorses.

These two breeds have both a different physical stature and racing endurance and thus require different facilities within the same design. For his track Riley included two chutes, i.e., sets of gates from which horses are released to begin a race. Based on his experiences working at racetracks, he knew that the two types of horse begin their sprints at different locations on the track: Quarter horses typically race a quarter mile and begin on a spur, while thoroughbreds race longer distances and begin on the oval. To make the track more profitable, he explained during his retrospective protocol, he wanted to service both thoroughbreds and quarter horses:

If you have thoroughbreds wanting to work and come around the turn and everything, you have got gates up here the quarter horses can work and get out of their way. . . . Out of 480 horses, there will probably be quite a few that will need to be schooled in the gates, and while they are doing that, down here you can be gating horses for workouts and stuff.

Riley's sense of economy included at least two considerations here. First, he opened his market of potential customers by servicing horses of two types. Second, his differentiated chute design enabled owners of both types of breed to train on the track simultaneously, maximizing the potential of his facilities for serving a variety of clients and increasing profits.

Upkeep Another economic consideration was the upkeep of the ranches. The students needed to consider a host of problems in maintaining the ranch. Darin, for instance, selected materials that were both structurally sound and aesthetically appropriate. When Raymond asked him what kind of fence he would construct, he replied:

On the fences I am going to use the, like you suggested, that nice PVC type fence on the front end. And then on the back fences where looks aren't as important, they have got a fence up at the [state agricultural university] Equestrian Center up there that has the pipe tops. But instead of cable it is a rubbery type cable that they use for underwater stuff that the horse can't get their legs skinned up on, and that is what I am going to use everywhere. . . . I am going to [build stalls from] solid planks of wood 12 x 6's, about halfway up, and then the rest of the way it is going to be pipe . . . about six inches apart, going up and down, so that the horses can't bite through to each other, but they will also have ventilation. And then on the outside walls I will have a door on each stall to open up to keep ventilation going through.

This explanation reveals Darin's understanding of horses' needs in terms of materials that are strong and durable but not injurious to the animals. The fences needed to meet aesthetic goals when visible to customers, yet be strong enough to contain a horse weighing over a thousand pounds without causing injury. Darin also showed an understanding of the behavior of horses while enclosed in stalls where

CHAPTER 8

they required strong yet safe containment materials. Finally, Darin revealed a grasp of horses' tendencies and need for fresh air through his decision of how to structure the wood planks in the barns and stalls to create favorable ventilation patterns. This design further prevented the horses from biting one another across stalls. His verbal explanation to Raymond as part of the instructional process was in turn encoded in his ranch plan as part of its designative function.

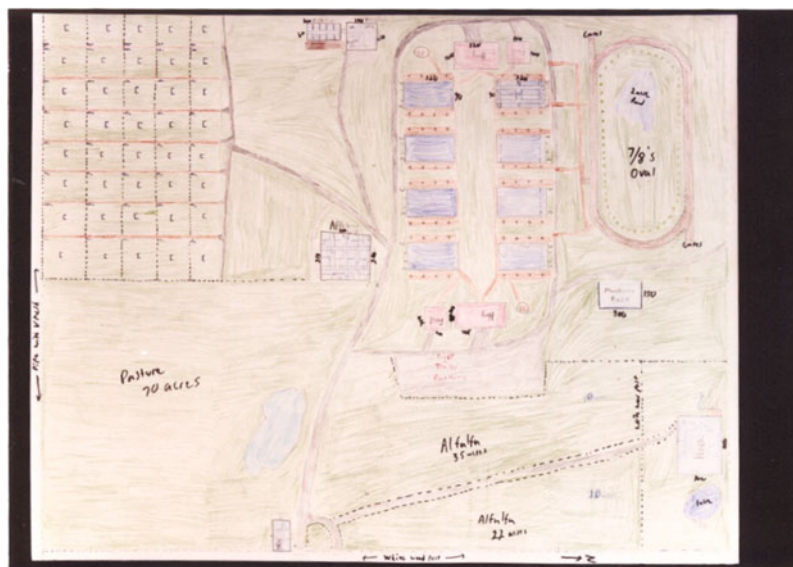


Figure 8: Riley's ranch design

Storage Darin and Riley designed areas for parking and storage, which required an understanding of traffic patterns and the volume of machinery and other goods they would need to store to operate the ranch. The locations of these facilities required the students to know both the economics of ranch operation and the economics of movement in order to enhance the profit potential of the ranch, and further know how to inscribe this parsimonious traffic flow in their drawings. During his concurrent protocol, while designing his barns, Riley recognized the need to include tack rooms, i.e., rooms in which his customers would store their stable gear (harness, saddle, and so on):

I'll design one of them barns as an example. I want to do it—I kind of want to make it a combination of the few ones I've seen. I kind of think, let's make a path over here with stalls. Gap, stalls, gap, stalls? Okay. We'll have a wash rack right here, where you come into the barn. We'll have another one at the

end of this row. And we'll have, let's see, kind of a tack room there. Storage, bathrooms, of course. More storage. Another tack room on that end.

These decisions required economy of movement because the storage areas needed to be placed in convenient locations relative to the parts of the ranch where the items would be used. For this barn accommodating 64 horses, a number of tack rooms were distributed evenly throughout the premises so that no customer had to travel far between a stall and a storage area. As Riley's process of designing the facility reveals, he made emergent decisions as he considered the barn's layout in relation to the value on smooth and direct traffic patterns and the needs of the breed he planned to produce, indicating the expressive dimension of his design approach.

Income The final consideration in terms of economics was the need for the ranch to generate income for the owner. When Raymond visited Darin during his concurrent protocol, Darin described how his ranch design included plans to earn a profit by growing crops that he could both sell and feed to his horses. Raymond noted that "Two hundred acres of bermuda grass is going to make worlds of hay." Darin responded,

Yeah, but since I'm going to have somebody else do the cutting and do that split it in half, they do all the work on it and they take half of it and I take the other half. . . . I can cut it just two or three times during the year, and then my excess I can sell off to get a little bit of spare money coming in, because if you got good bermuda grass hay, people are going to come from miles around to buy it.

Darin's understanding of market principles, the relative value of different crops, the relation between acreage and crop production, and other factors enabled him to meet one of the task's primary requirements: to operate the ranch at a profit. Darin achieved this goal through a variety of economic decisions, including judicious use of pastureland and savvy ideas about paying for labor with harvest rather than taxable income. His goal-directed, tool-mediated action was informed by his understanding of horse ranch operations and business practices that enabled him to work within the task's constraints to design a potentially profitable operation that he imaginatively inserted himself into in Gee's (2003) sense of a *projective identity*.

Production and Care of Horses

The second major problem solved by Darin and Riley was the production (breeding and training) and care of the horses. We next detail how the students attended to these concerns during their processes of composition, including the production of horses and the needs of the people who used the facility.

Production During his retrospective protocol Darin revealed how he combined his attention to horse production with his sense of economy of both finances and movement:

That's a loafing shed—so if you've got bad weather or its real hot, the horses can get in underneath that and get some shade or protection from the weather. . . . And then I have three of them up in the 28-acre pasture for the brood [breeding] mares. . . . [The pasture] is on the other side because I've got my lab over here, and it's a lot easier to access—just coming straight across and right in than it would be if they were right next to each other having to walk.

Here Darin shows his concern for the horses' needs for comfort through his design of loafing sheds, i.e., sheltered areas where they could retreat from the sun in his region's blistering summer climate. Respite from the heat would contribute to better breeding conditions, as would the availability of ample pastureland where they could graze and roam until ready to give birth to their foals. Darin's economical configuration of his facilities further contributed to the likelihood that the mare and foal would have good medical attention and the veterinarian would have the most efficient arrangement for healthy delivery of the colts, all serving the project's ultimate goal of designing a profitable horse ranch.

Needs of people The final problem that Darin and Riley sought to solve in their designs was care for the needs of people who used the ranch: proprietors, veterinarians, trainers, jockeys, customers, riding students, and others. Often these concerns were exhibited in the design of the owners' living quarters, including luxuries such as swimming pools, that suggested that some degree of emotional satisfaction was anticipated through their designs. At others the students saw the needs of people related to the economics of ranch operation. During his retrospective protocol, for instance, Darin described his decisions about where to locate his veterinary lab:

I didn't want to put the office or the tack room over by the lab and the wash rags because it can get pretty smelly over there sometimes. . . . Sometimes you'll get chemical smells from the lab where they do work there. And I just didn't want to have any of those smells coming into my office. . . . If I had people coming in to look at horses or want to purchase something, I want them to be as comfortable as possible.

In this case Darin's understanding of customers' needs—their likelihood of recoiling from chemical smells—motivated his decision about where to locate the lab and his business office relative to one another. This issue of comfort presumably would affect the business operation of the ranch: leasing space at the facility, buying and selling horses, negotiating contracts, and attending to other business matters under conditions that were comfortable for clients and thus conducive to negotiating agreements.

Darin and Riley invoked knowledge of a variety of disciplinary fields to configure space for the greatest economy of movement and consequently the greatest economy of enterprise. While the drawings themselves might appear crude compared to professional art design graphics, they exhibited evidence of what Vygotsky (1987) would term the development of scientific concepts: culturally-motivated abstractions in the form of ranch designs that would function profitably in a particular business environment. Although the drawings themselves appear static, the concurrent and retrospective protocols reveal the degree to which the students inscribed the sort of movement implicated in narrative accounts of how people and animals would navigate the premises toward particular ends. To return to the constructs outlined in Chapter 7, the designs achieved the designative potential of the sign function of texts.

Rather, though, than having the ambiguity of cave wall paintings—the concern of Woods (2010a) in differentiating language from drawings (see Chapter 6)—the ranch designs were codified so that those conversant with the textual signs could interpret their meaning in close proximity to the intentions of the designer. Raymond’s role as teacher was to provide professional-grade feedback to insure that the drawings were appropriately coded so that a third party could construct a reasonable facsimile of the ranch on designated acreage.

Like written texts, then, the ranch designs met the requirements for Wertsch’s (1991) extension of Vygotsky to include a cultural tool kit of mediational means. In this case the culture was that of the horse industry, and the subfields of producing show horses and race horses, each with particular requirements for breeding, maintenance, and performance. Ranch operators with an understanding of the issues that concerned Raymond as teacher, and Darin and Ryan as proprietors, could invoke their knowledge of ranch design in relation to the students’ plans and move from the abstraction of the drawings to the concrete construction of the facilities with relative faithfulness to the plans.

Inscription and Encoding of Meaning in the Ranch Designs

The narratives the students told when explaining their designs provided much richer explanations of their decision-making than were available by simply looking at the completed drawings. In the following excerpt from his retrospective protocol, Darin described his decision about where to locate his ranch in terms of the site’s excellent soil texture, a major issue given the sandy composition of soil generally found in the region. In doing so he drew on his knowledge of climate, geography, materials science, and natural sciences, using evocations and narratives about how particular configurations would function together:

Darin: The [nearby small town] area has really good land around it or parts of it are really good.

Q: What do you mean by good?

CHAPTER 8

Darin: They have good top soil that has a good nitrogen level and good nutrients in their soil to give you a better pasture and field crop. . . . If [the soil] was down by the river, you know, that would be because the river would overflow and deposit soil and that sort of thing all over the top of the land and give you better nutrients there, but—

Q: Is it near enough to it that that would happen?

Darin: Not in my facility exactly because I wouldn't want my pastures and my barn to go under water. Not if the river floods.

Q: So you put this on high ground?

Darin: I put it on a slope with the barn and the house being pretty much like on the top of the hill where you would have the breeze coming along to cool it off in the summer time. And it would be well insulated so in the winter time, the horses can generate their own heat to keep them warm.

Q: Inside this?

Darin: Uh huh, inside the barn.

Q: Huh. So does it slope down from the house—this is all down hill?

Darin: Right. Uh huh. Not a real big slope, but just enough that water would run off of it, and I wouldn't have any standing water.

Darin and Riley frequently drew on a variety of *culturally schematic tools*; that is, broad mediational means such as a field of study. In this excerpt Darin describes how his knowledge of geography—the gravitational effects of slopes on water, the tendency of rivers to overflow their banks—informed his decision to locate his facility on high ground. His description is replete with small narratives: rivers overflowing and barns going under water, summer breezes providing cool air, horses generating heat in insulated barns to reduce heating costs. These images, likely generated from his prior experiences, served as interevocational scripts that guided his decision-making about how movement would occur around the ranch and how a careful design could minimize problems and harness energy for the sound financial operation of the facility.

Furthermore, both Darin's and Ryan's decisions reflected the interplay between conceptual fields that Vygotsky (1987) finds so critical to concept development. Both boys' experiences at work provided them with the practical knowledge (spontaneous concepts) that allowed for empirical testing of formal rules (scientific concepts). Darin, for instance, used formal knowledge of soil nutrients, which Raymond covered in class, in conjunction with his worldly experiences working with horses to refine his understanding of how to situate the various parts of his facility relative to the ranch geography.

These decisions suggested how they inscribed meaning in the drawings. Rather than simply designing a facility, the students were meaningfully projecting their experiences into their designs and translating those experiences into appropriate iconography. The conversations in which Raymond discussed their drawings with them suggest that as a member of this community of practice, he recognized their inscriptions in a general way; that is, he could tell a barn from a fence and largely understood the reasoning behind the students' decisions.

What is not evident from the drawings is the complexity of the thinking that produced them: the understanding of how the proximity and logistics of configuring the various elements of the facility contributed to economy of movement and profit, the knowledge of which materials best suited particular needs, the awareness of how geography and climate affected decisions on how to situate structures and areas in relation to one another, and much more. As outlined in the next section, the students inscribed even more personal meaning into the texts than Raymond could identify with his lifelong affiliation with the ranching community and career of teaching students to produce such texts, meanings that were central to how the boys viewed themselves in relation to the horse industry and society as a whole.

Integration and Representation of Culturally-Mediated Identities through the Design Process

The process of composing these texts helped the students to integrate, represent, and mediate their emerging identities. The task enabled students to make connections between personal experiences and this school assignment through interevocational imaginative juxtapositions. The meanings that they inscribed and encoded in the drawings were culturally mediated. Simply by producing a text that conformed to Raymond's expectations, Darin and Riley were engaged in a cultural practice. Otherwise, Raymond would not have been able to recognize the symbols used to indicate fences, roads, barns, and other structures; the colors associated with particular ranch elements (e.g., blue for water); and other iconography inscribed to be easily recognized and read by an informed reader. More subtle aspects of culture were written into the texts as well in each student's meaning-making during his process of designing his ranch.

Riley In his concurrent and retrospective protocols, Riley revealed an affiliation with the proletariat of ranch operations: the least secure and most vulnerable participants in the culture, the horses and the ranch hands. While not from a poor family, Riley had a working class orientation, taking low-paying jobs at tracks and viewing college as unnecessary to his future needs. His inscription of meaning in his design suggests that he viewed the ranch operation from the perspective of these low-status workers and the animals themselves.

CHAPTER 8

Riley's breeding operation was designed to produce race horses, an interest he developed through his family orientation and the opportunities he availed himself to in both this state and the adjacent state in which his father lived. For Darin this breed was the show horse, a breed he had developed an interest in with the support of his parents and the opportunities their affluence provided. Each student's selection of a breed to produce suggested an orientation and trajectory for both horses and the human participants in the business operation.

Riley, for instance, spent a lot of time around race tracks both as an observer and participant. His knowledge of how to design training facilities for racehorses was in large part a consequence of his engagement with this community of practice. During his retrospective protocol he discussed the housing he intended to provide for the ranch hands. He included a set of apartments because, he said, a nearby ranch operation "has theirs in the barn, which I don't like." He continued,

Riley: They were tack rooms, and they turned them into apartments. . . . The trainers probably would not live out here. Most of them would go and have places around here and stuff, but a lot of their help is hired, and they are looking for cheap places to live real close, which this would allow.

Q: Do you provide free room to the hands or do you rent those out?

Riley: It would be rented. It would be fairly cheap rent.

Q: That looks like another huge complex.

Riley: Yeah, it's pretty big. I never did—it has about 16 apartments in it or something pretty close to that.

Q: Is that roughly how many [ranch] hands you would hire?

Riley: It would not be me. I would not hire the hands. As the trainers pull in, they will bring people with them.

Riley's explanation reveals a complex knowledge about the community of racing practitioners. The nearby ranching operation provided a layout that Riley felt was inadequate to the living needs of the ranch hands, whose families he had come to know during his employment in the entry-level positions at local ranches. Rather than housing them in smelly tack rooms that were crudely converted to living quarters, Riley sought to construct apartments better suited to a comfortable living space for the ranch hands whose needs he appeared to identify with and provide for. In particular he appeared to understand their nomadic existence and need for convenient, comfortable, and affordable housing.

Riley's decisions were thus a function of the interplay between his scientific and spontaneous conceptual fields. He learned general cultural principles from Raymond and specific cultural knowledge from work at the state's largest race track, with his mother's horses, at various tracks near his father's residence, and at

a nearby ranch. His position as an entry-level worker gave him a perspective informed by the needs of the horses and the lowest paid employees, those with whom he appeared to share the greatest empathy in his design, suggesting an emotional dimension to his work.

Darin Darin, in contrast, appeared to identify with the profession's managerial class. The son of two doctors, Darin had confidence in his entitlement as proprietor of the ranch he designed. He described his approach to ranch economics in terms of far-sighted financial planning. In the following excerpt, for instance, he discussed how to operate the facility at a profit:

Darin: I've got a lot of land here set aside for my feed so I won't have to be out laying any more money there.

Q: So you've got 40 acres for oats?

Darin: Uh huh.

Q: Two hundred for bermuda grass?

Darin: Right.

Q: So that's all going to go to feed these animals?

Darin: Right. Except on the bermuda grass, a hundred of that will go to whoever it is that ends up doing my cutting for me. I'm going to do it a 50-50 split where they do all the labor and I provide the land. And then whatever I have left over, I can sell to help pay the mortgage note on the place.

Q: Where did you learn about things like that—about these economic things?

Darin: For the past two years, I have been given a monthly salary to spend on the horses, and I've had to learn how to budget that myself.

Q: Was that from your parents?

Darin: Uh huh. Yeah. And whenever you're given just so much to use, you have to learn how to make it last.

Darin's monthly allowance placed him in a commanding position, enabling him to engage in financial planning and management early in his high school "career," the term that Eckert (1989) uses to describe the construction of the school experience as a portfolio-building process by students who affiliate with white collar workers. This planning included a strategy of growing more crops than he needed so that he could trade resources for labor and avoid paying taxes on his income. The allowance his parents provided appeared to lead him to conceive of ranch operations from the standpoint of ownership rather than workers or horses. When asked, for instance, how many employees would be required to operate the ranch, he replied:

CHAPTER 8

I'm going to have two other people besides my wife. And they're going to do like the cleaning stalls and taking care of the fence and all the manual work, and I'm going to do the training aspect of it. I am going to make sure that my wife goes through the Vo-Tech [Vocational-Technical] school so she'll know how to do all the breeding stuff, because I've seen ladies are just a little bit more neater than I am, so I want to make sure everything's nice and clean.

Darin conceived his anticipated wife as an asset to the company, someone to attend to the niceties of the operation. The ranch hands would do the manual labor, while Darin would oversee the training of horses, the more glamorous and specialized work of the enterprise. As he put it later in this session, "Hired help would be cleaning the stalls, feeding, mend a fence whenever it needs to be fixed, doing pretty much the junk work, and I'll be doing all the training." This workforce would have a specific makeup:

That is going to be the entrance to the [house], right up there and then my help's house is going to be right down there. And I am figuring one man and his wife or two guys or Mexicans can live in the house together, and then me and my wife will live up there in the house. And I figure between the four of us we can manage the place.

Darin thus envisioned himself as playing a corporate role in his life as a rancher, with his wife-assistant keeping the ranch clean and his immigrant help maintaining the ranch while he trained horses, the ranch's primary commodity. In this sense Darin was not only designing a ranch but a privileged future for himself.

CONCLUSION

In this chapter I have attempted to illustrate a Vygotskian extension from word meaning as the unit of analysis for developmental research to volitional, meaning-centered, goal-oriented, tool-mediated action in social, cultural, and historical context. I have drawn extensively from two studies from my own research because of their familiarity to me and because they illustrate the application of Vygotskian principles to nonverbal composing. Just as the writer featured in Chapter 7 was concerned with both sign and tool use in the context of meaningful, teleologically-oriented expression within the confines of culturally coded text production, the students featured in this chapter, like the students who have participated in other studies I have conducted across the secondary school curriculum engaged in nonverbal composing, were concerned with both the process and product of their designs in their composition of meaningful, culturally-mediated texts.

The projects through which Peta, and Darin and Ryan, engaged in such meaningful action were different in orientation. Peta's task was very open-ended. Although he was confined to the space provided by his plaster mask, his options in depicting his identity were limited only by his imagination and the experiences that

he drew on to construct his text. His primary knowledge came through his reflection on his life experiences, channeled by the aspects of Native American culture that informed his worldview and meta-experiences: the manner in which he experienced his experiences.

Darin and Ryan were far more constrained in their designs, with a task specified and the limits of ranch economy driving their decisions. They needed to draw on a vast array of scientific fields and incorporate mathematical computations to arrange their ranch spaces spatially for economic advantage. Even within these specifications, they produced texts that suggest worldviews and trajectories central to their understanding of their roles in the world.

In this sense, the students' processes and products meet the criteria for inclusion in a Vygotskian perspective on human development. They illustrate the possibilities of an expanded tool kit of mediational means for inclusion in a consideration of nonverbal composing in literacy studies. This approach complements the other perspectives on nonverbal composing that I outlined at the beginning of the chapter. From Gardner's point of view, the students used spatial intelligence to position the images of their texts in relation to one another. The texts are multimodal in that the textual conventions cue the invocation of particular reading strategies for an understanding of the codified meaning that the students inscribed in them. The theory of power in a multiliteracies perspective could critique the absence of artistic opportunities for students like Peta and the inequities that schools create by imposing logocentric norms on teaching and learning, or view Darin's and Ryan's differential identification with the managerial and proletarian classes as evidence of how societies replicate social orders. And if newer technologies were to be employed to produce such texts, the 21st century literacies or digital technologies perspectives could be invoked to account for the affordances that they provide their authors.

Vygotsky's work requires Wertsch's (1991) adjustments for considering nonverbal composing as part of the cultural tool kit for understanding mediated action in human development. In current semiotic terms, textual signs need not be verbal but, as I reviewed in Chapter 6, are available in virtually any human construction. Viewing human artifacts as semiotic texts amenable to a developmental analysis enables Vygotsky's work to be applicable to studies that look beyond the word for evidence of the human need to find meaning in life.

PART 3

METHODOLOGY AND METHOD SECTIONS

THINKING AND SPEECH AND VERBAL DATA

In this chapter I shift from looking at the reading, writing, and nonverbal composing processes of the previous section and explore one research method, *protocol analysis*, from a Vygotskian perspective. I make no claims that this method is the best method for conducting a Vygotskian analysis of literacy processes. It is, however, one that I've used frequently and thought about quite a bit. A discussion of protocol analysis can clarify issues that are in play in other methods of investigation that involve the analysis of speech-based inferences about socially, culturally, and historically grounded human cognition in developmental research.

Vygotsky (1978) summarized problems of method that he saw as central to investigating questions of human development as follows:

To study something historically means to study it in the process of change; that is the dialectical method's basic demand. To encompass in research the process of a given thing's development in all its phases and changes—from birth to death—fundamentally means to discover its nature, its essence, for "it is only in movement that a body shows what it is." Thus, the historical study of behavior is not an auxiliary aspect of theoretical study, but rather forms its very base. As P. P. Blonsky [1921] has stated, "Behavior can be understood only as the history of behavior."

The search for method becomes one of the most important problems of the entire enterprise of understanding the uniquely human forms of psychological activity. In this case, the method is simultaneously prerequisite and product, the tool and the result of the study. In summary, then, the aim of psychological analysis and its essential factors are as follows: (1) process analysis as opposed to object analysis; (2) analysis that reveals real, causal or dynamic relations as opposed to enumeration of a process's outer features, that is, explanatory, not descriptive, analysis; and (3) developmental analysis that returns to the source and reconstructs all the points in the development of a given structure [that contribute to] a qualitatively new form that appears in the process of development. (pp. 64–65; emphasis in original)

Conducting literacy research that meets this standard can be a challenge. Vygotsky's own descriptions of his research, for instance do not provide the sort of detail that one would expect of 21st century social sciences scholarship (see Chapter 1) or that illustrate how he met his own demands. His own short life prevented him from

conducting true longitudinal studies on individuals' development in social context, as his requirements would necessitate. Researchers must adapt his principles, then, to contingencies that enable inferences about what is not available for a full-blown collection of data that detail culturally situated human development.

To illustrate such contingent adaptations and the inferences they enable, I refer to Vygotsky's (1978) description of Leont'ev's research on what he terms "three basic stages in the development of mediated remembering" (p. 45) regarding children's learning of colors. Rather than following the culturally mediated life-spans of individuals in order to study this phenomenon, Leont'ev used three groups of people of different ages, whose development, I infer, were presumed to have followed a similar cultural path. Taking three groups at different ages enabled Leont'ev to draw what I consider to be crude comparisons to provide evidence of a developmental path. By "crude" I mean that they allowed for highly generalized inferences regarding what individuals within this culture would understand about colors, assuming that their thinking has been mediated in equivalent ways.

Conceivably, this approach could be construed as more Piagetian than Vygotskian given that it appears to follow development unfolding in gross stages among children of different age groups (G. del Villar, personal communication). I can only assume that Leont'ev's intent was to take a shortcut—of studying different individuals grouped by age and how their conceptions of colors differed in this chronological progression—to make inferences about culturally-mediated progression rather than to view their differences as evidence of age-dependent development. His method, however, did not meet Vygotsky's (1978) criteria in the strictest sense, even as Vygotsky used his research to illustrate both developmental and methodological points. Even the architects of this theory, then, appeared to work from problematic methods that made the best of the seemingly insurmountable challenge of understanding the complexities of human development in their social, cultural, and historical contexts.

The methods that they used, as I detail in Chapter 3 when analyzing Luria's methods of investigating the cognitive processes of Eurasian newcomers to the Soviet Union, could lead to conclusions that appear to defy the very social-cultural-historical foundation of Vygotsky's project. One thus approaches Vygotskian studies with the understanding that it would be virtually impossible to conduct a study that comprehensively accounts for all of the social, cultural, and historical factors that mediate the development of concepts; the processes through which cognitive functions are appropriated in this context; the specific form that cognition takes once appropriated and adapted; and the manner in which this cognition is exhibited in one's consequent engagement with others in social practice. Adapting research methods to conduct studies of human cognition in its developmental context is therefore always a process requiring inferences based on what people make available to researchers through their process of being studied. I assume that standards of 21st century university research, which require participants' informed consent to be studied, provide even greater restrictions on these possibilities than those that constrained Vygotsky himself in his Moscow laboratory.

THE ADAPTATION OF PROTOCOL ANALYSIS TO A VYGOTSKIAN APPROACH

Introspection has had a long and contentious history in psychological research. Its use as a method of inquiry dates at least to William James, who argued in 1890 that “Introspective observation is what we have to rely on first and foremost and always” (p. 185). Research methods designed to study thought processes through the systematic elicitation and analysis of verbal accounts have been used by researchers in psychology and related fields for over a century (e.g., Bereiter & Scardamalia, 1987; Bracewell & Breuleux, 1994; Claparede, 1934; Dansereau & Gregg, 1966; Duncker, 1926; Flanagan, 1954; Flower & Hayes, 1977; Hendrix, 1947; Ruger, 1910; Smagorinsky, Daigle, O’Donnell-Allen, & Bynum, 2010). Viewing introspective accounts as a valid means of making inferences about cognition, Newell and Simon (1972) developed *protocol analysis* as a systematic means of eliciting and analyzing a think-aloud or retrospective account rendered by a person in relation to solving a specific problem. Protocol analysis has since served as a method for researchers studying a variety of problem-solving activities, with most following the theoretical principles of the information processing (IP) theory that has motivated the work of Newell, Simon, Ericsson, and others.

According to Ericsson and Simon (1993), information processing theory requires research methods that

reveal in remarkable detail what information [people] are attending to while performing their tasks, and by revealing this information . . . provide an orderly picture of the exact way in which the tasks are being performed: the strategies employed, the inferences drawn from information, the accessing of memory by recognition. [IP’s purpose thus lies in] developing and testing detailed information processing models of cognition, models that can often be formalized in computer programming languages and analyzed by computer simulation. (Ericsson & Simon, 1993, p. 220)

Protocol analysis is a central tool for investigating cognition in information processing studies. In this chapter I will argue that even though it originated in a paradigm that is concerned with cognition apart from the culturally-mediated, developmental precedents that so concerned Vygotsky, protocol analysis can also serve as a methodological tool for inquiries grounded in the issues he lays out in *Thinking and Speech*. Unlike IP theory and its emphasis on creating models of problem-solving processes, a Vygotskian perspective is concerned with human development, particularly the role of cultural tools and signs in structuring and enabling changes in consciousness in socially channeled ways (Valsiner, 1998; Wertsch, 1985, 1991). This social and developmental emphasis views speech as a cultural tool that produces meaning-laden linguistic signs (see Chapter 6). Vygotsky was concerned with the ways in which speech serves a social and developmental purpose during engagement in task-related activity and the ways in which speech represents developmental changes across the lifespan.

In this chapter I outline both IP and Vygotskian perspectives as they pertain to the use of protocol analysis. I focus on information processing because it provided the original framework through which I viewed cognition during my doctoral research, and because it has played a dominant role in studies of human cognition, as evidenced by the fact that Newman et al. (1989) situated their work in dialogue with information processing theorists in their account of their alternative perspective that cognition occurs in the context of a *construction zone*. I find it useful, therefore, to work from this contrast as a way to illuminate aspects of both theories, particularly in terms of their account of cognition as either a largely internal or largely tool-mediated process embedded in broader cultural practices (see Ericsson & Newell, 1998, for their critical perspective on my distinctions).

I organize this analysis into three sections, each looking at the assumptions underlying the two perspectives according to a particular dimension. Because an IP view of protocol analysis has already been explained in considerable detail by Ericsson and Simon (1993), I will provide only brief summaries of their argument here and refer the reader to their text for a more comprehensive account of their view. The different assumptions underlying the two perspectives result in different conceptions of protocol analysis as a research methodology and different understandings of the import of the data that protocols elicit. Ultimately, I argue that protocol analysis may be used as a methodological tool by researchers from either theoretical orientation. Yet the different conceptions of the relation between thinking and speech result in different ways of accounting for the data that emerge through the production of verbal data.

A fundamental difference between IP and Vygotskian accounts of cognition concerns their divergent goals. The purpose of research conducted through an IP lens is to produce models of cognition, often with an emphasis on the kinds of processes associated with different degrees of expertise. From an IP perspective, the functional and developmental aspects of cognition are not of primary interest; rather, the focus is on performances that serve as evidence from which relatively stable (that is, not developmentally oriented) cognitive models may be built. Conceivably, expert-novice studies could be termed developmental in the same manner that Leont'ev's study of color perception could be in that both provide crude accounts of different stages of progress toward a notion of expertise or concepts, albeit with people of different ages or levels of knowledge and experience rather than longitudinally with the same sample. My reading of expert-novice studies in general, however, finds them to focus more on broad differences between novice-level knowledge and a particular form of expertise toward a specific teleological conception of a field, rather than on social, cultural, and historical mediation that would advance people from a low level of knowledge to this presumably optimal state of expertise.

From a Vygotskian perspective, development and learning are central concerns; the focus is thus on how speech both represents and mediates changes in consciousness, particularly as these mediated processes represent socially-appropriated cultural

practices. This emphasis on the socially-situated, mediational role of speech and other cultural tools and its involvement in ontogenesis provides Vygotskian researchers with a project that is distinct from that of IP's concern with developing generalizable models of cognition. From a Vygotskian perspective, models of cognition cannot be generalizable because different cultures formulate different goals, thus causing mediational means (e.g., psychological tools such as speech) to function differently from culture to culture, resulting in the appropriation of different ways of thinking (Tulviste, 1991). As Roth (2010) asserts, "the structure of the utterance is a purely social structure" (p. 59) that must take into account the setting in which the utterance serves a social, dialogic, addressive function.

Researchers have struggled to make their cases both for and against protocol analysis as a reliable and valid means of investigating psychological processes. Psychologists will, after all, probably never really know exactly what goes on in people's minds, a problem that has resulted in (1) "black box" psychologies predicated on the study of behaviors and outcomes (e.g., Skinner, 1957), rather than efforts to investigate the cognitive processes that produce them, and (2) historical skepticism about methods of investigation that rely on introspection and self-reports of thinking processes (e.g., Dobrin, 1994; Lashley, 1923; Nisbett & Wilson, 1977). Those theories that do attempt to account for cognitive processes are based on data-driven inferences rather than empirical proof, due to (1) limitations in studying the functions of the human mind that remain unobservable, and (2) for Vygotskian researchers, continued uncertainty regarding both the location and constitution of the mind and the extent of its boundaries (Smagorinsky, 1995a; Wertsch, 1991).

The validity of protocol analysis has been studied by IP researchers primarily through outcome measures, typically provided by contrasts between groups of people solving problems silently and groups solving the same problems while concurrently "thinking aloud." In a typical such study (Feldman, 1959) one participant predicted the outcome of a binary choice problem and simultaneously tried to verbalize his thought processes, while two large control groups solved the same problem silently, with no differences found in the types of choices or number of correct predictions. From studies such as this one, Ericsson and Simon (1980, 1993) have inferred that, while slowing the problem-solving processes, thinking aloud does not alter them.

Compounding the problem of the need to infer cognitive processes from public performance is the paucity of research on protocol methodologies. Stratman and Hamp-Lyons (1994) point out that research on the extent to which protocols interfere with participants' thinking processes is based upon few direct studies of this process of *reactivity* (cf. Russo, Johnson, & Stephens, 1989). Most of the studies reviewed by Ericsson and Simon are not studies of the methodology itself but studies that attempt to use the methodology to study some specific problem-solving processes. Their conclusion that thinking aloud does not alter thought processes is thus an inference drawn from studies that generally are not designed to investigate the method itself.

My effort to describe a Vygotskian perspective on protocol analysis is considerably more problematic, given the fact that protocol studies grounded in Vygotskian principles are rare. Vygotsky himself never used the method in his research. His attention to think-aloud data comes in his account of egocentric speech, which he does not analyze through the sort of systematic collection and analytic procedures enabled since his death by the technology of audio and video recording devices. For the most part Vygotsky studied social interactions, an approach that researchers following his principles have come to regard as the best available way to study the hidden psychological processes of individuals.

In the method best approximating protocol analysis, Vygotsky's collaborator Luria (1932) used the *combined motor method* in which he created "a scripted situation where a subject had simultaneously to carry out a motor response (squeeze a bulb) and a verbal response (give the first word that comes to mind) when presented with a stimulus word" (Cole, 1996, p. 280; cf. Cole, 1979). These visible responses allowed Luria to make inferences about hidden psychological processes. While sharing IP's assumption that an utterance can serve as the basis for understanding cognition, Luria took a more social view of the data, studying consciousness through experimentally manipulated social *disruption* rather than during experimentally controlled, presumably unadulterated functioning as IP studies claim to do. Luria's assumption that human cognition can be inferred from social processes has been taken as axiomatic by Vygotskian researchers such as Newman et al. (1989), who assert that "interactive processes are accessible to observation and can provide an important link to explain cognitive change" (pp. 92–3).

In this chapter I provide two different theory-driven accounts of protocol analysis, each of which rests on a suppositional foundation inferred from observable behavior. The primary sources I draw in making my argument are Ericsson and Simon's (1979, 1980, 1993) accounts of IP and Vygotsky's (1987) *Thinking and Speech*. I feature Ericsson and Simon because, of the IP theorists, they have devoted by far the most attention to protocol analysis. I choose Vygotsky because *Thinking and Speech* is the foundational work in subsequent efforts to understand the relation between thinking and speech in social-cultural-historical, developmental accounts of mentation. His view of development has been critiqued and revised since his death, and those revisions are included in my theorization of protocol analysis.

The two theoretical lenses featured in this review rest on different assumptions and are supported by substantially different types of evidence. Ericsson and Simon (1993) undoubtedly make their case with far greater breadth and detail, drawing on hundreds of studies to support their contention that protocol analysis both represents an IP perspective and serves to document the validity of IP assumptions. Vygotsky's (1987) view, in contrast, is in many ways a case still under construction. Any consideration of Ericsson and Simon's views on cognition should acknowledge that it would be difficult to produce a more detailed, empirically-supported, intellectually responsible argument than they provide in *Protocol*

Analysis: Verbal Reports as Data (1984/1993); and any effort to provide a Vygotskian alternative should acknowledge the difficulty of demonstrating how speech-related activities serve development.

At the same time, one should also recognize that IP's intimate relationship with protocol analysis as a methodological tool provides Ericsson and Simon with a greater body of work to draw on in supporting their view. Vygotskian claims are rarely tested with the sorts of experimental designs that provide Ericsson and Simon with such overwhelming evidence in support of their argument. Furthermore, protocol analysis has rarely been used in Vygotskian studies. As a result, the empirical data base in support of a Vygotskian view of protocol analysis is limited.

My effort is not to try to win the argument for the Vygotskian perspective, but to contrast the two perspectives on major issues in understanding the relation between thinking and speech and to examine the implications for research in accepting the different assumptions they make about the role of speech in representing and changing one's thinking. My own history with this problem is perhaps revealing. My graduate training emphasized IP approaches to theory and methodology, and this orientation was reflected in my first research efforts using protocol analysis (Smagorinsky, 1989, 1991b, 1994). For various reasons I became interested in cultural issues that channel cognition and began a series of methodological explorations (Smagorinsky, 1995a, 1997a, 1998, 2001b; Smagorinsky & Coppock, 1994, 1995a, 1995b; see also this book's Author's Preface) that considered, among other questions: What is it that researchers study when they study what people say? How does the theoretical lens that researchers bring to this question affect the ways in which they collect, analyze, and interpret data? These questions form the basis for the inquiry that follows.

I next outline IP and Vygotskian perspectives according to three dimensions: (1) the relation between thinking and speech from a representational standpoint, (2) the social role of speech in research methodology, and (3) the influence of speech on thinking during data collection. Through these considerations I develop assumptions that undergird the use of protocol analysis from a Vygotskian perspective.

THINKING AND SPEECH AND REPRESENTATION

The data elicited from a think-aloud protocol get rendered in the form of a transcription that then gets subjected to some form of systematic analysis, usually through the application of a coding system (see Chapter 10 for a consideration of the value of coding data). How researchers approach this analysis depends on what they see as the purpose of psychological research and how its conduct follows from that purpose.

If researchers view transcribed verbal reports as representations of thinking, then they need to have a theory that accounts for the relationship between thinking and speech. Among these theoretical concerns should be an account of the manner in which speech represents thinking. IP approaches to cognition use a computer model to account for the ways in which people process, store, and retrieve information.

The goal of IP researchers is to build models of cognitive processes that are based on verbal reports and in turn predict the unfolding of cognition, as inferred through the think-aloud process and resulting transcript. A well-conducted protocol can, from an IP perspective, “guarantee a close correspondence between the verbal protocol and the actual processes used to perform the task” (Ericsson & Simon, 1993, p. xv).

The characterization of protocol analysis as a verbal *report*, the term used by Ericsson and Simon (1978, 1979, 1980, 1984/1993) throughout their extensive consideration of the topic, suggests that what is verbalized is a reasonably accurate account of interior cognition. As Ericsson and Simon (1980) describe it, “With the instruction to verbalize, a direct trace is obtained of the heeded information, and hence, an indirect one of the internal stages of the cognitive process” (p. 220). They continue,

verbalization processes produce (externalize) information that is in STM [short-term memory]. In the case of thinking-aloud instructions, the information verbalized will then be some portion of the information currently being attended to. . . . making a verbal report requires, according to this model, the corresponding verbal representations of the information . . . to be evoked. . . . [Thinking aloud] will not change the structure and course of the task processes, although it may slightly decrease the speed of task performance. . . . [Verbalizations] involve either direct articulation of information stored in a language (verbal) code (Level 1 verbalization); articulation or verbal recoding of non-propositional information without additional processing (Level 2 verbalization); or articulation after scanning, filtering, inference, or generative processes have modified the information available (Level 3 verbalization). (pp. 226–227)

Ericsson and Simon (1993) assert that their model of human information processing is predicated on their ability to identify information heeded in STM. The researcher can apply codes to the transcribed verbal report that then lead to inferences about problem-solving processes. Ericsson and Simon distinguish their own notion of the proper conduct of protocols from the notions of others: “Many procedures attempt to encode the *processes* that generate heeded information, rather than the heeded information itself. But the processes can only be implied from the information in STM, which does not, as we have seen, usually include information about process” (p. 258; emphasis in original). Given the goal of IP theory to develop models of problem-solving processes, think-aloud data serve as a trace, a source of evidence, through which to infer the inner workings of the mind.

Vygotskian perspectives, in contrast, endeavor to understand the means through which cognition develops, both in terms of cultural history and in terms of the individuals who are situated in social, cultural, and historical contexts. From this perspective, problem-solving is a function of both how problems are defined socially and how people have historically solved those problems with particular

cultural goals in mind. *Problem-solving is thus a situated practice that is not generalizable across cultures*, with culture in this sense referring to any social group, regardless of size, with particular ways of being and mediation toward the trajectories available through that worldview. Expert-novice studies would therefore presumably identify different processes if conducted as cross-cultural studies where the cultural values, goals, practices, tools, and signs of different social groups have historically developed to achieve different ends.

Vygotsky's identification of word meaning as the unit of analysis for understanding human concept development assumes that words are the most significant cultural artifacts through which to study and understand cognition, given that they embody both the individual's personal development and the aggregate meaning of a group's cultural development. In Vygotsky's (1987) view of the relation between thinking and speech, the study of speech is the study of cultural history. Yaroshevsky (1989) points out that Vygotsky viewed "the word as a concretism of cultural senses" (p. 80) and believed that "methodology without history is empty" (p. 173).

Human consciousness, in this conception, is not the isolated functioning of a single mind, but the workings of a social mind whose structure and function are predicated on the ways in which a person has learned to use cultural tools. Words are both immediately social and historically cultural, says Vygotsky (1987): "In consciousness, the word is what . . . is absolutely impossible for one person but possible for two. The word is the most direct manifestation of the historical nature of human consciousness" (p. 285). To Vygotsky the task of psychology "is not the discovery of the eternal child. The task of psychology is the discovery of the historical child, of what Goethe called the transitory child. The stone that the builders have disdained must become the foundational stone" (p. 91), a remark that he makes in dialogue with his contemporaries in psychology who attempted to formulate a theory of psychology independent of attention to issues of human development, particularly those aspects subject to social-cultural-historical mediation.

This historical setting provides the context for the development of concepts by individual members of a culture. With Vygotsky's developmental orientation, words serve as signs that represent concept development. To Vygotsky (1987), words reveal the whole state of human consciousness:

Consciousness is reflected in the word like the sun is reflected in a droplet of water. The word is a microcosm of consciousness, related to consciousness like a living cell is related to an organism, like an atom is related to the cosmos. The meaningful word is a microcosm of human consciousness. (p. 285)

In *Thinking and Speech* Vygotsky outlines how word meaning indicates the degree to which people grow toward what he calls scientific concepts, which are formally learned through systematic instruction and which a person employs to account for a set of items that are unified by a single, consistent set of traits (see Chapter 7).

To Vygotsky, word meaning is the appropriate unit of analysis for studying cognitive development because through the meanings that people attribute to words, psychologists can understand the degrees of abstraction that they have achieved in their thinking. In order for a method to account for word meaning, it needs to account for “the material on the basis of which the concept is worked out and the word through which it arises” (p. 122). In other words, a method needs to view artifacts, including words, as representative of social-cultural-historical phenomena and of the mediational means through which world views are represented and appropriated.

Vygotskian researchers also need to understand how words function for culturally-situated individuals. When people attribute meaning to words, they do so for both personal regulation and for communicative purposes (Lee, 1985). Speech is fundamentally communicative, providing signs that have a meaning potential that is then interpreted by others according to their own culturally-learned ways of imputing significance to artifacts (see Chapter 6). Linguistic signs enable people to communicate with one another (assuming that they attribute reasonably similar understandings to the same words) and to organize their worlds. Vygotsky’s (1987) attention to the representational capacity of speech is therefore concerned with *meaning*, both in terms of the meanings that people communicate through speech and the development of their own ability to think about meaning in rational, abstract, systematic ways and consequently as a way to think of, impose order on, and exercise control over the world (Wertsch, 2000; see Chapter 7).

Understanding a word, or an utterance from Bakhtin’s perspective, thus involves understanding the web of meanings within which it is voiced and understanding the larger social goals that suggest the motivation for and teleological assumptions behind the development of personal, often culturally-channeled goals (see, e.g., Darin and Riley in Chapter 8). Vygotsky (1987) argued that “the development of logical thought is nothing but a reflection of the historical process in an abstracted and theoretically consistent form. . . . Historical analysis becomes the key to the logical understanding of concepts” (p. 147). With the variance of social-cultural-historical traditions across both societies and idiocultures (subcultures within cultures), historical analysis must be highly localized in order to produce an understanding of concept development.

To achieve this understanding, one needs to identify and account for the environmentally-channeled task and the trajectory of an action. This premise implies that interpreting a protocol requires knowledge of the participant’s cultural history, the researcher’s goal-directed behavior within the conduct of the study, and the degree to which their congruence allows for words-as-signs to be assigned similar meanings by the two of them. These factors together contribute to the intersubjectivity between researcher and participant that enable them to conceive of tasks in isomorphic ways. (See the responses of Rakmat to Luria’s questions, reported in Chapter 3, for an illustration of the absence of researcher-participant intersubjectivity.) In using a Vygotskian perspective on protocol analysis, it is important to understand the historical processes of both the participant and the researcher in

order to conceive of how both construct the task and why they construct it as they do.

Vygotsky's (1987) view of training sessions prior to data collection is revealing on this point (see Chapter 3). He viewed training sessions as among the most critical areas of study, for that is where researchers can analyze the appropriation process itself and thus make inferences about the process of concept formation. This view differs from that of IP researchers (as well as researchers from most other clinical branches of psychology), who train their participants in the task prior to data collection in order to familiarize them with the procedures (e.g., Flower & Hayes's [1980] use of a jug-filling problem to allow participants to practice solving problems while thinking aloud, prior to collecting a protocol of their concurrent thinking-aloud and writing).

From a Vygotskian perspective, a participant's construal of a task is significant because it reveals his or her level of concept development and interpretation of signs. The "training" period, then, is not so much practice for a later polished performance as it is a key developmental point during which researcher and participant move toward intersubjectivity and thus toward a greater sense of isomorphism with respect to the task. To Vygotsky this period is of greater theoretical and developmental interest than the more advanced performance that follows from the training.

For research to proceed from Vygotskian tenets, then, it is critical to consider a verbal report beyond its potential to serve as a trace of a problem-solving process. Vygotsky's contextual emphasis further suggests the need to understand:

1. How the researcher and participant construe the task, how the participant's task construal develops during the course of the research, which aspects of the activity setting help to account for this development, and the degree of intersubjectivity that is in play in participants' construction of the task in relation to the researcher's intentions.
2. How researchers' and participants' relative senses of task construal provide each with an anticipated trajectory for completing the task.
3. How researchers' and participants' relative senses of trajectory have been culturally mediated in their personal histories.
4. How researchers' and participants' respective personal histories have been culturally situated and channeled in order to produce the understandings that they bring to the research setting.
5. How the participant's rendering of linguistic signs indicates his or her pathway and level of concept development.
6. How the researcher's own conceptual path for interpreting those linguistic signs has been culturally channeled.

As I review in Chapter 10, providing such detail is beyond the reach of most investigators and would produce studies that occupy far more pages than the typical academic journal will accommodate. This obstacle no doubt accounts for the sorts of shortcuts taken by Leont'ev and virtually anyone else attempting to work assiduously from a social-cultural-historical perspective.

THE SOCIAL ROLE OF SPEECH IN RESEARCH

The factors of cultural mediation and communication outlined in the previous section have immediate as well as historical implications for conducting protocol analysis from a Vygotskian perspective. Researchers have long been concerned with various problems with *reactivity*, which is the way in which a method of investigation affects the phenomena being studied. Researchers, for instance, can help shape results by anticipating preferred outcomes and subtly providing conditions that favor their development (see, e.g., the critique provided in Smagorinsky, 1987). IP and Vygotskian researchers both recognize the likelihood of introducing confounds in research that involves researcher-participant interaction. Both theoretically and methodologically, however, researchers from these paradigms view the problem differently.

Ericsson and Simon (1980) recognize the ways in which a protocol may be influenced by contextual factors. They point out, for instance, that “Various kinds of intermediate processes may intervene between the internal representation of information and its verbalization. . . . [The] circumstances under which verbalization takes place can have a significant effect on what is verbalized and on the interpretation of the verbal data” (p. 218). Their primary concern is that a researcher’s instructions can cue particular reports from participants by directing the retrieval of specific bits of information from STM. Ericsson and Simon (1993) “found substantial evidence that differences in performance were induced by telling the subject *how* to verbalize. In order to verbalize the information called for by the instructions, instead of the information he would normally have attended to, he had to change his thought processes” (p. 107; emphasis in original).

Ericsson and Simon (1993) are concerned that “Many verbalization procedures referred to as ‘think-aloud’ include elements that, from our point of view, would influence the sequence of thoughts” (p. xxxi). In their view the verbal report is an account of cognitive processes that are specifically cued by the data collection procedures, and the model that is generated from the report must take into account the type of information solicited for retrieval from STM. Ideally, however, the cues provided in the elicitation procedures provide as little specific direction as possible. The researcher is part of a *task environment* (Hayes & Flower, 1983), and the cue provided by the researcher is a trigger for an internal retrieval process that is then reported verbally.

To reduce the possibility of reactivity, IP researchers attempt to neutralize their role through both the content of the instructions and by the location of the researcher in relation to the participant. Ericsson and Simon (1993) emphasize that a protocol should not be elicited as an act of communication. They recommend that in setting up a protocol, “the experimental situation is arranged to make clear that social interaction is not intended, and the experimenter is seated behind the subject and hence is not visible. . . . the social interaction between subject and experimenter is minimized” (p. xiv). Prompts by the researcher to the research participant

should be along the lines of “‘Keep talking’ because it is the least directive and does not require any direct answer to the experimenter” (p. 256). In Ericsson and Simon’s view the social processes involved in protocol collection should be minimized to the greatest extent possible to allow for the most unadulterated view of cognitive processes.

The alternative view I will propose is based on Vygotsky’s view of egocentric speech, modified by (1) Cole’s (1992, 1996) critique of Vygotsky’s (1987) insufficiently cultural view of the first two years of development and (2) Bakhtin’s (1984) notions of *addressivity* and *hidden dialogicality*. Through this review I will make the case that all speech is social, no matter how deftly a research method disguises this fact. I propose that it is possible to alter, but not minimize, the social role of speech in protocol-based research.

Vygotsky (1987) noted similarities between Watson’s (1920) use of think-aloud methodologies and children’s egocentric speech. In Vygotsky’s view the verbalization of Watson’s participants was similar to the egocentric speech of young children: “One need only consider psychological experiments such as those carried out by Watson where the individual is asked to solve some intellectual task while verbalizing and displaying his inner speech to see the profound similarity between the adult’s overt verbal thinking and the child’s egocentric speech” (p. 72). Egocentric speech and think-aloud verbalizations, he says, are similar in that “Both are speech for oneself” (p. 71), serving a function that is regulatory and expressive. To the degree that they occur in human settings, they are also both social, thus reflecting a conflation of language functions.

Cole (1992, 1996) critiques Vygotsky’s (1987) view that biological and cultural lines of development have separate origins that converge at about the age of 2. Vygotsky is inconsistent in his beliefs about the separation of the biological and cultural lines of development during the first two years of life. In *Thinking and Speech* he asserts that these two lines intersect at about age two. Yet Bein, Vlasova, Levina, Morozova, and Shif (1993) credit him with asserting that “From the first days of his existence, a child finds himself acted upon by his surrounding social environment and interacts with it. This action and interaction determines his development and, as it were, leads it along. Still, the hereditary component, no matter how small it may be, also participates in the formation of the higher mental functions” (p. 304). Cole draws on the concept of *prolepsis*—the culturally-mediated projection of a social future onto a present situation and the subtle means by which this future is channeled—to argue that “*one cannot say that first comes the phylogenetic part and then comes the cultural part and the individual part. All are there from the outset*” (p. 214; emphasis in original), a view more in accord with Vygotsky’s as outlined by Bein et al. His conclusions are based on research on infants that points to the cultural fact that parents and other adults project a probable future for children and structure their environments to eventuate that future. (See Rubin et al.’s 1974 study of blue and pink diapered babies and the differential manner in which adults handle and speak to them, reviewed in Chapter 3.)

CHAPTER 9

From this perspective egocentric speech is a culturally-grounded act. At the most obvious level the child is speaking a specific, learned language and using it according to local values and customs. The child's utterance is thus responsive to what Holquist (1981) describes as the Bakhtinian "dialogic imperative, mandated by the pre-existence of the language world relative to any of its current inhabitants, [that] insures that there can be no actual monologue"¹ (p. 426). In this sense, then, even apparently egocentric speech has a social basis and is uttered in relation to other people. Bakhtin was not a child psychologist and did not study the early speech of young children. But his dialogic imperative supports Cole's argument that culture—and thus historically-grounded, meaning-laden, communicative, and regulatory artifacts such as speech—influences development from the beginning of social life.

Bakhtin's (1986) notion of dialogism leads him to argue that "addressivity, the quality of turning to someone, is a constitutive feature of the utterance; without it the utterance does not and cannot exist. The various typical forms this addressivity assumes and the various concepts of the addressee are constitutive, definitive features of various speech genres" (p. 99). In this view an utterance is not self-sufficient. Rather, it is a link in a genre-based communicative chain, thus arising from prior utterance and inviting further response. The addressee need not be immediately present but might be distant, and might further be an indefinite other rather than a specific person. Wertsch (1991) points out that

Ultimately, an utterance reflects not only the voice producing it but also the voices to which it is addressed. In the formulation of an utterance a voice responds in some way to previous utterances and anticipates the responses of other, succeeding ones; when it is understood, an utterance comes into contact with the "counter word" of those who hear it.

Bakhtin's concern with addressivity in the utterance thus involves both a concern with *who is doing the speaking*—the fact that "the utterance has . . . an author" (1986, p. 95)—and a concern with *who is being addressed*. Because any utterance entails the idea of addressivity, utterances are inherently associated with at least two voices. (p. 53, emphasis in original)

Wertsch (1991) ties Bakhtin's idea of addressivity to the notion of *voice*, a term that suggests that even apparently isolated articulations by an individual have a communicative basis situated in dialogic chains. Wertsch argues that a goal of psychology therefore is to account for cognition through recognition of the relation between mental processes and their cultural, historical, and institutional settings, which are socially constructed and provide the activity setting that motivates and reciprocates individual mental functioning and communicative utterance.

Bakhtin (1984) further argues that, because utterance is inherently social, speech can participate in a relationship that he refers to as "hidden dialogicality":

Imagine a dialogue of two persons in which the statements of the second speaker are omitted, but in such a way that the general sense is not at all violated. The second speaker is present invisibly, his words are not there, but deep traces left by these words have a determining influence on all the present and visible words of the first speaker. We sense that this is a conversation, although only one person is speaking, and it is a conversation of the most intense kind, for each present, uttered word responds and reacts with its every fiber to the invisible speaker, points to something outside itself, beyond its own limits, to the unspoken words of another person. (p. 197)

Taken together, Cole's (1996) view of the intermingling of cultural and biological development and Bakhtin's (1981, 1984, 1986) notions of addressivity and hidden dialogicality suggest that egocentric speech and think-aloud methodologies are both part of a hidden dialogue. To illustrate this point I will draw on a case study I conducted on the writing of Doug (Smagorinsky, 1997a; see Chapter 7). The protocol collection was different from that of most studies. Doug was issued a portable audio recorder that he kept for four months. He was asked to provide protocols for his writing whenever he found it convenient and for whatever writing he did either for classes or for other reasons.

Doug's situated use of the protocol brought out its social nature and hidden dialogicality. Although he and I had infrequent personal contact, he often addressed me as he talked to his recorder while writing. At one point, for instance, his protocol included the following statement:

I would like to take the chance to thank you for letting me do this because it is kind of neat to get my thoughts out. . . . It is kind of neat to have someone to talk to like this. And after I am done with the experiment, I will keep doing this, I will keep talking in the recorder. Leave some sort of physical memory behind of me, but other than that it helps to get my voice out. It is something that I can't always talk about to other people.

Here Doug explicated the way in which a hidden dialogue can take place between participant and researcher. This statement and others in the protocol reveal that Doug was not simply providing a protocol, he was providing it *to* someone. Few of his statements were so explicit. Yet the addressivity of his protocol is evident in his routine statements directed to his listener. For instance, at one point he explained the dramatic structure of a story he had written that involved heightened anticipation followed by sudden disappointment. He then described a television program he had seen that had provided the dramatic structure he sought to adopt:

I don't know if you have ever seen the *Saturday Night Live*, Steve Martin plays a midget, well you don't know that. He and this lady are at a table eating, and they are describing each other to themselves, and as they say

something that the other person finds attractive or a plus in their personality, you hear this whistle go up like—I can't whistle, I am sorry.

Again, he explicitly addressed his listener, revealing that his account of process was a function of his conception of his listener: He assumed that the listener did not share the same viewing habits and therefore catered his explanation to meet his listener's presumed needs. Interestingly enough, Doug said on several occasions during interviews that he was a private person who did not reveal himself often, especially to people to whom he felt close (and with whom he therefore felt vulnerable). He could be more intimate with trusted "third party" listeners who would not use his confessions against him, much like the bartender who hears people's stories or the airplane companion whom one will never see again. In a follow-up interview Doug stated that our personal distance allowed him to reveal himself in unusually intimate ways, allowing his protocol to include the emotional turmoil behind much of his writing. Presumably, a different listenership—another teenage boy, for instance—would have elicited a different protocol.

Researchers have long documented reactivity between researcher and participant. Rosenthal (1966) catalogued the seemingly endless number of interpersonal effects between researcher and participant that can affect the emergence of data, including effects based on gender, race, perceived ethnicity, researcher biases and hypotheses, and other factors. Rosenthal studied interaction effects between researchers and participants in face-to-face encounters. Ericsson and Simon (1993) are aware of these effects and try to design data collection procedures to minimize or neutralize them. From a Vygotskian perspective, the goal should not be to neutralize these effects but to assume that they exist and then to identify and account for them in the data collection and analysis. Placing the researcher behind the participant, for instance, might prove to be a disconcerting experience for some participants in conjunction with some researchers. The result might not be a neutralized mediator, but a mediator that facilitates a hidden dialogue characterized by uncertainty, suspicion, or other feeling that could influence the shape of the data.

From a Vygotskian perspective the goal would be to explicate the intersubjectivity between researcher and participant in the greatest detail possible. It would be important to understand how and why the participant constructs the situation in the way he or she does in order to analyze and interpret why this particular account is rendered in this particular context. Protocol research conducted from a Vygotskian perspective would then need to take into account:

1. Both the researcher's and participant's sense of prolepsis for (a) themselves, (b) one another, (c) the setting, and (d) the task, and how those anticipated futures channel the performance of both.
2. The relationship between participant and researcher and how the participant's conception of the researcher provides the speech genre invoked, the content reported, the trust accorded to the listener, the rules for what it is appropriate

to say, the emotion involved in the report, and other factors of interpersonal communication.

3. Other contextual factors that might influence the participant's construction of meaning for the situation and resultant form of address.

THE INFLUENCE OF SPEAKING ON THINKING

My final area of consideration concerns IP's and Vygotsky's way of theoretically accounting for the role of the act of speaking on the thought processes being studied through the procedure of thinking aloud. I have already reviewed the way in which a Vygotskian perspective would assume that thinking aloud shapes thinking by providing it with a specific addressee. In this section I will consider other aspects of this problem. First, however, I will review the way in which IP researchers have accounted for the influence of speaking on thinking during data collection.

Stratman and Hamp-Lyons (1994) pose the problem from an IP perspective by asking, "Do subjects' verbalizations of thoughts during a task actually alter the cognitive processes required to carry out the task—in ways that either enhance or obstruct the cognitive processes subjects would use when not under the [think-aloud] condition?" (p. 89). This question concerning reactivity is of concern in IP-based studies because, if the process of providing a protocol changes the participant's thought processes, then the analysis will not produce what it claims to find. Ericsson and Simon (1979) argue that extensive testing reveals that "verbalization will not interfere with ongoing processes if the information stored in STM is encoded orally" (p. 16). They further argue that the process of verbalization has differential effects depending on the characteristics of the tasks being conducted and the instructions to verbalize: "When the instructional procedures conformed to our notion of Level 1 or Level 2 verbalization, the studies gave no evidence that verbalization changes the course or structure of the thought processes" (1993, p. 106).

Some cognitive theorists have pointed out the ways in which acts of composing result in the development of new ideas during ill-structured tasks in which "the problem itself is not usually fully defined beforehand. . . . Rather, the process of problem definition is in part carried out through the activity of text production as the writer organizes, reorganizes, and elaborates knowledge in the course of writing" (Bracewell & Breuleux, 1994, p. 56). Bracewell and Breuleux are attentive to the ways in which a cognitive model can account for changes in problem definition and, by implication, changes in consciousness.

Other IP theorists have found such changes to have deeper roots than are apparent from limited observation. Ericsson and Simon (1980) address the issue of sudden insights developed while engaged in problem-solving, a phenomenon that might undermine a conception of cognition grounded in the view that thinking is a function of memory retrieval. An insight, they argue, is not an epiphany. Rather, as Durkin (1937) argued, insights "can always be found to have developed gradually. The suddenness must be regarded as due to the concealment of the background.

It does not bring in a *new* kind of process” (p. 81; cited in Ericsson & Simon, p. 238, emphasis in original). In this view, what appears to be a spontaneous realization is instead the retrieval of prior knowledge that is brought to bear on a new problem. For Ericsson and Simon, then, apparent changes in consciousness are accountable for within IP theory, being reorganizations of information from memory into new schemata.

The different projects of IP and Vygotskian result in contrasting views of the role of speaking relative to the process of thinking. From an IP perspective the goal of research is to use verbal reports to generate models of cognitive processes. If they are to achieve this goal, they must regard mediating influences as potential sources of adulteration to the processes they are trying to infer and thus try to minimize them during data collection or account for them theoretically. Tangible mediators such as researchers and their prompts are identifiable and controllable through careful, theoretically-informed data collection procedures. Theorists account for a factor such as speech by asserting that it does not serve a mediating function but instead reveals the kind of information being heeded in STM.

From a Vygotskian perspective the goal of research is to understand development as it is culturally mediated. If they are to achieve this goal, they must identify and understand the ways in which cultural mediators such as speech channel cognitive change, including the speech that unfolds during the collection of a protocol. From this perspective the term *think-aloud* is incomplete. More accurately, the procedure describes a *think-and-mediate-aloud* data collection through which what is revealed is not quite an internal process, but a process that reflects the cultural practices that are appropriated through participation in speech-based interactions and that in turn act on their social context through speech-based interactions. As Cole (1996) notes, schemata are not simply internal cognitive structures; they mediate social practices as *cultural schemata*. This view is different from IP’s view of cognition being separate from the task environment and capable of being isolated from the effects of cultural mediation.

The assumption behind this Vygotskian view is that the mind is unbounded (Smagorinsky, 1995a; see Chapter 3); that is, psychological tools such as speech provide the means through which individuals appropriate the higher mental processes central to social transactions and also provide the means through which they act on their environments. These tools not only mediate the development of higher mental processes, *they are themselves a fundamental part of those processes*. The mind, in this conception, “extends beyond the skin” (Wertsch, 1991, p. 14); that is, the mind is socially distributed and inextricably linked to the tools of mediation (Salomon, 1993).

Thus, developments in consciousness cannot be considered as separate from the goal-directed, tool-mediated action through which the changes take place (Wertsch, 1985, 1991). To Vygotsky (1987), “thinking depends on speech, on the *means of thinking*, and on the child’s socio-cultural experience. . . . the development of the child’s thinking depends on his mastery of the social means of thinking, that is, on his

mastery of speech” (p. 120; emphasis in original). The production of a think-aloud protocol, therefore, potentially serves as a tool for an instrumental process of cognitive development rather than, to use a common metaphor, a window that allow researchers to peer into workings of the mind (e.g., Hayes & Flower, 1983).

In Chapter 7 of *Thinking and Speech*, Vygotsky (1987) articulates a notion of meaning in which it is constructed through the process of articulating inner speech to public speech through the mediation of linguistic tools. According to Vygotsky, “thought is never the direct equivalent of word meanings. Meaning mediates thought in its path to verbal expression. The path from thought to word is indirect and internally mediated” (p. 282). This statement represents a fundamental difference between Vygotsky’s view and the IP assumption that think-alouds accurately represents internal thought processes. Vygotsky instead argues that thinking achieves meaning on its way to articulation. The process of articulation enables the inchoate thinking of inner speech to be realized in conventional genres of expression in a set of signs that has a meaning-potential and thus potential for communication:

Even at the outset, then, thought and word are not cut from a single mold. In a certain sense, one can say that we find more opposition than agreement between them. The structure of speech is not a simple mirror image of the structure of thought. It cannot, therefore, be placed on thought like clothes off a rack. Speech does not merely serve as the expression of developed thought. Thought is restructured as it is transformed into speech. It is not expressed but completed in the word. Therefore, precisely because of their contrasting directions of movement, the development of the internal and external aspects of speech form a true unity. (p. 251)

Through this process of articulation, inner speech is restructured, transformed from “a predicative, idiomatic speech into the syntax of a differentiated speech which is comprehensible to others” (p. 280). In Vygotsky’s view the mind should not be conceived of as being organized in memory nodes, as postulated in IP theory: “Thought is always something whole, something with significantly greater extent and volume than the individual word. . . . *What is contained simultaneously in thought unfolds sequentially in speech.* Thought can be compared to a hovering cloud which gushes a shower of words” (p. 281; emphasis in original). Thinking only makes social sense after being transformed to the cultural artifact of the word, both to speaker and to addressees conversant with the codes in which the words are organized as more extended utterances.

Interest in the expressive functions of language has motivated much research on learning. Barnes (1992), in analyzing classroom discourse, argues strongly in favor of encouraging “exploratory talk” (p. 28) as a means of generating ideas, arguing that “the more [a learner] is enabled to think aloud, the more he can take responsibility for formulating explanatory hypotheses and evaluating them” (p. 29). Used as a means of learning, “speech and writing [can serve] as an instrument for reshaping experience, that is, as a means of learning” (p. 84).

Wells and Chang-Wells (1992) similarly argue in favor of “a conception of literacy as a mode of thinking that deliberately makes use of language, whether spoken or written, as an instrument for its own development” (p. 123). This view has also inspired a great deal of interest in *writing to learn* in which writing is viewed as a tool for exploring a subject (Applebee, 1981). In all of these approaches, speech and speech-based activities such as writing are assumed to serve as vehicles through which thinking is articulated, transformed into an artifactual form, and then available as a source of further reflection. The processes of rendering thinking into speech constitute more than memory retrieval and the revelation of inner cognitive processes. Rather, they enable thinking to reach a new level of possibility through articulation.

If a researcher adopts this assumption, collecting and analyzing protocols becomes highly problematic. If thinking becomes rearticulated through the process of speech, then the protocol is not simply representative of meaning, but an agent in the production of meaning. What is studied, to use Vygotsky’s (1987) metaphor, is the shower of speech and not the storm cloud of thinking. While one generates the other, they are not isomorphic. Both are dynamic, and both are continually in a process of “unfolding” (Vygotsky, 1987, p. 280). The analysis of rainfall can lead to inferences about the type of cloud that produced it but not to the construction of a model of how that specific cloud functions (J. Smagorinsky, personal communication²). And anyone undertaking a study of the relationship between clouds and rain needs to keep in mind the fact that *the process of raining changes the constitution of the cloud*.

The problem is much more complex when analyzing thinking and speech. Clouds, while having a history and existing within a context, do not have a consciousness or live within a culture; they have no memory, no volition, no tools, no setting with a cultural motive. The problems of analyzing the artifact of speech, under the assumption that there is a dialectic relation between thinking and speech, are virtually limitless given the range of variables potentially available to confound any interpretation.

Researchers who adopt this perspective must take into account:

1. The ways in which the tool-and-sign function of speech gives it a mediational role in data collection. As a mediator it serves as a means of articulation of thinking into the socially comprehensible form of speech. The formal features of speech are determined by the participant’s appropriated cultural practices and the contingencies that determine suitable genres for the situation.
2. The ways in which the process of providing a protocol will potentially prompt changes in consciousness through the expressive, exploratory, transformational process of articulation. Inferences made based on a protocol analysis thus need to account for the dynamic, unfolding natures of thinking and speech and their dialectic relations.

AN ALTERNATIVE THEORETICAL GROUNDING FOR PROTOCOL ANALYSIS

I have little but praise for Ericsson and Simon's monumental justification of protocol analysis, *Protocol analysis: Verbal reports as data* and the comprehensiveness and consistency of their argument. I readily acknowledge that my argument is considerably more speculative than theirs given their admirable diligence and thoroughness in justifying their approach and the paucity of data I have to draw on in framing my alternative perspective. Yet the studies I have conducted using both concurrent and retrospective protocol analysis and their methodological cousin, stimulated recall, have raised some doubts in me about their assumptions about the social nature of speech, enough to prompt me to search for alternative ways of theorizing how speech serves as a source of evidence about cognition. Hawking (1988), in discussing the generation of theories, points out that

any physical theory is always provisional, in the sense that it is only a hypothesis: you can never prove it. No matter how many times the results of experiments agree with some theory, you can never be sure that the next time the result will not contradict the theory. On the other hand, you can disprove a theory by finding even a single observation that disagrees with the predictions of the theory. (p. 10)

Through this chapter I have proposed an alternative way of thinking about protocol analysis based on the ways in which a Vygotskian perspective has helped me think about what is theoretically available through the method. A Vygotskian perspective suggests the need to analyze the *setting* in addition to the *protocol*. A protocol should not be analyzed only for what it allows a researcher to infer about the individual mind, but should be analyzed as a situated practice with antecedent cultural history and the potential to produce new thinking through the process of articulation.

From a practical standpoint, this task is not merely formidable but both impossible and problematic, as Vygotsky's own reports of his research and that of his most accomplished colleagues suggest. There is, after all, a lot of history, and it would not be possible to say with certainty which historical actions provided the significant channels for the action under study and which of the overlapping historical paths should be foregrounded. History can only be partially reconstructed, and so the cultural precedents for a protocol could only be sampled and inferred. This problem is central to any research conducted from a Vygotskian perspective. A second problem concerns the perspective adopted to tell that history. As many have pointed out, any historical account is a narrative told with bias and agenda (Loewen, 1996, 1999). Providing a historical context for a protocol is thus a subjective process. This problem is inherent in all methods claiming a Vygotskian basis.

From a practical standpoint, telling this history makes for extremely long research reports in which the background information potentially dwarfs the protocol data. If the research is ever to reach publication, then the researcher needs to

CHAPTER 9

reduce this accumulated history to its salient points. What is salient, of course, depends on what the researcher wants to demonstrate. One solution is for the researcher to acknowledge biases and agendas and qualify all claims in terms of personal contingencies. All of these moves—accounting for cultural background and researcher agendas—require adjustments in the genre of research reports, particularly in terms of reconsidering the conventional limit of 25-35 pages that many journals impose on their contributors (see Chapter 10). A Vygotskian perspective on protocol analysis, then, will require methodological adjustments, interpretive adjustments, and substantial changes in the genre of the research report.

From a Vygotskian perspective, however, these changes are all needed. Newman et al. (1980) emphasize that “*the individual is not the most useful unit of analysis*” in psychological research (p. 59; emphasis in original), arguing instead that activity within a social setting should be the focus of study. These relevant settings require some explication in order for data to make sense. The tools, constraints, and communities of practice that channel the emergence of the verbal report are among the factors of setting that are relevant to interpreting speech as data. Collecting the data or conducting the analysis without acknowledging the social context that helps shape their emergence ignores the contingencies that provide the setting and social, cultural, and historical significance of their production.

NOTES

- ¹ Both Bakhtin and people who draw on his work (e.g., Nystrand, 1997) characterize monologism in two opposing ways. On the one hand, they describe situations in which one person dominates a social group as monologic; these settings include classrooms where teachers lecture incessantly. And yet Bakhtin also dismisses the idea that any speech act, no matter how long or uninterrupted, is monologic, given that it emerges as a conversational turn in dialogue with previous utterance and in anticipation of subsequent response or extension. To me this latter perspective—that all speech is inherently dialogic because it is always part of an ongoing conversation (see Burke’s [1941] parlor discussion metaphor in Chapter 2)—more robustly captures Bakhtin’s view of the manner in which all speech is a turn in a larger conversation.
- ² Joseph Smagorinsky, in addition to being my father, was a pioneer in the development of the General Circulation Model as a tool for weather forecasting (see, e.g., Smagorinsky, 1963; http://en.wikipedia.org/wiki/Joseph_Smagorinsky). I wish to thank L. S. Vygotsky for providing the analogy between rain and speech, thus creating the rare occasion for my work to overlap with my dad’s.

THE METHOD SECTION IN SOCIAL SCIENCE RESEARCH REPORTS

In this chapter I shift my attention from the conduct of Vygotskian research to issues that arise in the reporting of research. I argue that greater attention to the Method section¹ would strengthen the account of the conduct of the research for the benefit of both authors and readers, and serve as the nexus for the other sections of the paper's organization and alignment with one another. APA-style research reports are written as arguments in which data are rendered into evidence in support of claims and justified as evidence by means of warrants (i.e., statements that clearly explain why examples serve to illustrate claims). The basis for each element of a well-documented, consistent, and coherent argument should be explicated in the Method section of the report.

The Method section has gotten much more complicated to write since Braddock, Lloyd-Jones, and Schoer (1963) attempted to move the field of composition research into a new and unprecedented era of stature by positioning the experimental study as the pinnacle of scientific inquiry in composition studies (see Chapter 5). The reporting of an experimental study's methods does not require extensive explication. In experimental research articles in writing research before the mid-1980s, most authors explained, or should have explained, the "treatment" they were contrasting with a control group, which often went undescribed.

Experimental researchers further reported how particular variables were controlled for in the design, explaining such features as "counterbalancing" to minimize the effects of interventions such as the topics included in writing prompts. These studies additionally reported the particular statistical tests applied to the data to produce the results: a chi-square test, a t-test, an analysis of variance, an analysis of covariance, a multivariate analysis of covariance, and others. The absence of such detail led Hillocks (1986) to reject most of the experimental studies conducted from 1963-1983 in his meta-analysis of composition research, confirming Braddock et al.'s (1963) conclusion that writing researchers were inadequately prepared to conduct the experimental studies that they felt carried the greatest weight and prestige.

The Method section of experimental research reports was fairly straightforward, requiring little theorization or explanation regarding the reporting of data, which the statistical tests presumably rendered into objective results rather than social constructions (see Chapter 3 for a dissenting view; cf. Latour & Woolgar, 1979,

who argue that even the most “scientific” of studies is subjectively conducted). The author had little explaining to do beyond outlining:

- the differences between the comparison groups (e.g., teaching sentence combining vs. teaching “traditional grammar” or more vaguely, vs. “the control group”);
- the nature of the data (e.g., identifying *primary traits* in student writing such as claims, evidence, and warrants in persuasive essays);
- the control of variables (e.g., ensuring that teacher effects, order effects, etc., do not obscure the true variables that produce differences);
- the data collection points (e.g., contrasting pre-instruction vs. post-instruction student writing samples);
- the sort of statistical tests run (e.g., using a t-test, an analysis of variance, or other test)

The students themselves were typically presented as generic, a condition later viewed as problematic given researchers’ tendency to study White middle class students and generalize from them to all populations (for a critique of such sample selections, see the contributors to Cole, Engeström, & Valdez, 1997).

When language and literacy researchers began to borrow from paradigms outside the experimental approach in the 1970s, methodological explication became more important. First, often the theories and methods invoked were from outside the general reader’s experience and so called for clear outlining, as Flower and Hayes (e.g., 1981) did when importing the investigative method of protocol analysis from cognitive psychology in order to study the recently-conceived idea of writing processes (see Chapter 9). Second, the assumption of researcher objectivity became tenuous, leading researchers to acknowledge and account for their social construction of their data (Smagorinsky, 1995a; see Chapter 3). Third, researchers influenced by Vygotsky and other social and cultural theorists began to give greater attention to the relational nature of research. They were called upon to explain more about the context of the investigation: the social and cultural experiences of the participants; the physical, social, and political setting of the research; the assumptions at work in the environment; the researcher’s relationships and interactions with the participants; and much more following from attention to teleological directions, proleptic and explicit means of mediation, and other factors following from the assumption that thinking and acting are socially, culturally, and historically shaped (see Chapter 9).

On the whole, then, it became incumbent on researchers to account for far more than they had previously provided in order to explain the conduct of their investigation. Increasing attention to the social complexity of research produced a greater need to relate method to results, presenting authors with new obligations as they wrote their articles. Meanwhile (and as still the case), many journals adhered to the page requirements of a previous era, requiring a host of new decisions for authors who needed to account for research methods and investigative context and who

THE METHOD SECTION IN SOCIAL SCIENCE

needed to explain complex data sets in sufficient detail to be persuasive, all the while keeping manuscripts to 25-35 pages. The Method section, then, has evolved to the point where in order for findings to be credible, the methods of collection, reduction, and analysis need to be highly explicit. Further, the methods employed need to be clearly aligned with the framing theory and the rendering of the data into findings.

THE METHOD SECTION

The “social turn” in literacy studies in the last two decades (see the contributors to Smagorinsky, 2006) suggests that people from different backgrounds (e.g., from different cultural groups, genders, socioeconomic classes, races, ethnicities, regions, political perspectives, religions, and other categories) will not necessarily act in the same way under the same conditions. Indeed, many have argued that particularity, rather than generalizability and replicability, is a worthy aim of research (e.g., Bloome & Bailey, 1993; Valsiner, 1998). I find the historical sense of replicability—in which results achieve validity when the same findings are produced by separate studies using the same research design with different populations—to rest on an increasingly fragile foundation given my belief in the situated nature of cognition. However, I do think that a reader ought to be able to replicate a study’s *design* based on how an author explains it. This latter requirement, on the need for methodological explication in research reports, is my primary focus in this chapter.

Greater attention to accounts of research method is valuable, both for the reader’s sake and the writer’s. As a reader, I simply need to know how data become findings in order to trust the author’s claims. But for a writer, the Method section plays a pivotal role in the production of a research article. It serves as the core from which radiate the content and organization of each of the other sections of an APA-style research report. I’ll next outline how the Method section functions for those writing from a social-cultural-historical perspective by reviewing issues that arise in the collection, reduction, and analysis of data; and in reporting the context of the investigation.

Data Collection

Describing data collection is probably the most straightforward part of accounting for method. The Data Collection subsection includes a description of the data sources and how the data were collected: through field notes, interviews, audio recordings of discussions, ancillary artifacts, samples of writing, and so on. But merely listing sources in a general way is typically insufficient. Chin (1994), for example, argues that simply announcing that data are comprised of “interviews” overlooks the fact that interviews may be conducted in many ways, obligating the

researcher to be explicit about who conducted the interviews; whether or not multiple interviewers were involved and if so, how consistency across interviewers and interviewees was achieved (e.g., relying on a uniform interview protocol or set of prompts, and providing the text of such scripts); and other factors that help to explicate the specific nature of the data collection. I use interviews here to illustrate the problem, as I did with protocol analysis in Chapter 9; virtually any qualitative research methods, especially those that rely on the analysis of speech, benefits from exegesis of this sort.

Limitations and cautions about the data collection procedures also merit attention. Although they are often included toward the end of the concluding Discussion section, they seem more fitting in the Method section. Interviews, to return to this example, are not benign, but rather involve interaction effects. Rosenthal (1966) identified a myriad of characteristics that can affect the relationship between a researcher and participant, in turn helping to shape the data that emerge during the collection process (as reviewed in Chapter 9). Making some effort to account for these phenomena helps to explain the social construction of data in studies involving researcher-participant interactions (see Chapter 3).

Further, the report of methods should be tied to the study's motivating theory in terms of data collection, reduction, and analysis. For instance, when I began to shift my use of protocol analysis from its information processing origins to a Vygotskian framework (see Chapter 9), I had to provide detail in the publications in which I reported the research (e.g., Smagorinsky, 1997a) to distinguish my approach from that of my information processing antecedents. My paradigmatic reorientation thus obligated me to account for my decisions in data collection so that they were aligned with my motivating theory. Even something as seemingly simple as describing data collection procedures, then, can be problematic. Authors need to balance the need to explain these phenomena in detail and the simultaneous needs to stay within page limits and not test readers' patience with excessive detail before they arrive at the Findings section.

Data Reduction

Data reduction is a critical part of research method, but gets scant attention in publications about the conduct of research. All researchers reduce their data; some to numbers, some to words, some to both. I've often heard graduate students talk about their "thousand pages of data," with which they are most impressed. The researcher's task is to take this amorphous mass of data and reduce it to something manageable, comprehensible, analyzable, and useful.

The pattern I've often seen in manuscripts I'm asked to review for journals is for the author to provide a general textbook account of data reduction. The author will claim to have read the data set, found provisional themes, and developed and refined codes, *without explicitly naming them*. Describing this generic process

based on methods textbook formulas does little to illuminate for readers how a researcher has reduced data from an inchoate corpus to a systematically organized set from which a subset can document representative trends. Researchers need to explain the principles by which they have either eliminated data or selected something representative. Simply announcing that something is representative of the larger corpus is not convincing.

During my co-editorship of *Research in the Teaching of English* with Michael W. Smith, at times we required an author to tabulate the whole data set in order to demonstrate the representativeness of what was claimed as illustrative. It often turned out that the samples presented were more representative of the author's preferred conclusion than what the data actually produced about the focus of the study. Such authors were hardly in the minority; impressionistic data reports often involve selectively chosen data designed more to confirm a researcher's preconceived thesis than to mine the data exhaustively to analyze them systematically.

In addition to explaining the reduction of data so that representative samples are available, researchers ought to attend to disconfirming or discrepant data—i.e., data that are unrepresentative of the corpus as a whole and that raise questions about available generalizations. Disconfirming data can be important for several reasons. First, they may contest neat interpretations of the trends and complicate conclusions available from the analysis. Second, disconfirming data may serve as a separate focus of analysis. If, within a research site, people perform anomalously, they often merit attention, particularly if they share traits as members of some sort of minority group relative to the whole (as might a few men in a classroom of women, the subset of novices in a larger group of experienced workers, a handful of immigrants in a predominantly native setting, and so on).

Attending to discrepant cases, then, may challenge norms practiced by the majority within a group, or serve as a separate focus of attention for a better understanding of what is *not* representative of the whole and how their discrepant experiences can be explained. Such an approach would be consistent with the Vygotskian imperative to account for mediated human development, particularly as variations from the norm result in deficit judgments accorded to those whose performances are anomalous relative to that of members of the dominant culture or population.

Presenting the reduction process in detail—not through general descriptions borrowed from methodology textbooks—seems to me to be critical in presenting persuasive research findings, particularly in the sort of qualitative approaches that tend to characterize Vygotskian studies. Part of this account ought to be a juxtaposition of representative data with a tabulated version of the full analysis as evidence that the data that provide the focus of the results do indeed faithfully distill the entire corpus.

Data Analysis

The process of data analysis tends to get superficial treatment in the majority of manuscripts that I review for journals. I will next outline considerations that I think are important in both conducting and explaining the means by which a reduced data set gets rendered into a persuasive, evidentiary set of findings. To do so I will include attention to my collaborative work with doctoral students, because my approach becomes an issue in the sections that follow. Collaborative analysis enables me to get assistance with my work and my students to get experience and course credit for working with me, and we share authorial credit in presentations and publications. I also often credit the participating teacher as a coauthor because my research relies more on description than on intervention, and so the teacher's construction of the curriculum and her teaching practices constitute a major part of the research design (Gallas, 2000; Smagorinsky, Augustine, & Gallas, 2006). When appropriate, I also include a student as coauthor, if the student can be located and wishes to make additional contributions to the research at the time of analysis and authoring (e.g., Smagorinsky, Daigle, O'Donnell-Allen, & Bynum, 2010).

Coding data as the embodiment of theory I believe strongly in the value of the process of coding data. Not everyone agrees with me on this point; at one doctoral defense that I chaired, a full professor on the student's committee stated unequivocally that all coding of data is "positivistic" because it names data segments in ways that can take on the status of certainty. Perhaps coding can be bound by beliefs of its truth value, but surely not in every case.

Rather than seeing coding as static and positivistic, I believe that coding makes the theoretical approach used to analyze the data manifest by applying code names to segments of text (typically, in my work, field notes, interview transcripts, discussion transcripts, and transcripts of people speaking as or soon after they work). In this conception coding makes the researcher's theoretical perspective on the data corpus explicit, without precluding other ways of looking at it. Also, by creating categories in sets and levels, a coding system embodies not only a theory but the principles within that theory and their relations to one another. In that sense, coding establishes the researcher's subjectivity in relation to the data and the framework through which data are interpreted. From this perspective the codes are not static or hegemonic, but rather serve to explicate the stance and interpretive approach that the researcher brings to the data. If anything, coding manifests not only theory but the researcher's acknowledged subjectivity, which refutes the complaint that coding is by nature positivistic.

To illustrate: My work assumes Wertsch's (1991) extension of Vygotsky (1987), which postulates that the appropriate unit of analysis for the study of the development of human consciousness is volitional, goal-directed, tool-mediated action in social, cultural, and historical context. Because I have interrogated this axiom and have accepted its explanatory power as a premise, I rely on its princi-

ples to provide the major categories that I typically employ during data analysis. I often look at the *tools* that mediate thinking, the *setting* in which those tools have gained currency and sanction, and the *goals* toward which people put them to use. These general categories, I have found, provide a framework through which to develop more finely-tuned codes that specifically account for the situated thinking of the people who participate in my research.

Those second-level codes vary depending on a variety of factors. The topic of the study, for example, will narrow down the possibilities for which settings are in play, which tools are employed, and which goals are at work in the participants' performances. For my purposes over the last decade, these topics include studies of early-career teachers developing concepts about how to teach secondary school English or elementary Language Arts; or studies of high school and university students constructing texts or talking about texts in ways that they find meaningful through their use of discussion, writing, and nonverbal media in their interpretive and representational work. I have summarized some of this work in previous chapters of this book.

The subcodes also vary depending on the specific problems that the participants are attempting to solve. One early-career teacher, for instance, might be struggling to find ways of teaching writing and come to rely on a formulaic approach such as the five-paragraph theme (Johnson, Smagorinsky, Thompson, & Fry, 2002), while another might be attempting a progressive pedagogy within a scripted curriculum (Smagorinsky, Gibson, Moore, Bickmore, & Cook, 2004). Or a group of students might be interpreting *Hamlet* through a graphic medium (Smagorinsky & O'Donnell-Allen, 1998) while another student might be designing a home interior for a class in interior design (Smagorinsky, Zoss, & Reed, 2006) or writing essays in academic, personal, and hybrid genres (Smagorinsky, Augustine, & O'Donnell-Allen, 2007).

The transcripts from these studies suggest the ways in which the three major categories of goal, tool, and setting involve subcategories specific to the problem-solving activity engaged in by the research participants. Whatever overlap occurs across the studies follows from commonalities in what emerges from the data, rather than *a priori* categories that I superimpose on the transcripts. The cultural tools employed by participants are a function of what they need to do to act on specific problems presented by their environments (Tulviste, 1989). And so while participants in a variety of studies might employ the tool of a narrative—to depict their emotions on masks representing their sense of identity (Zoss, Smagorinsky, & O'Donnell-Allen, 2007; see Chapter 8), to create pathways for negotiating the premises of a house (Smagorinsky, Cook, & Reed, 2005), to inform their interpretation of a poem (Smagorinsky, Cameron, & O'Donnell-Allen, 2007)—more unique codes come in relation to more specific tool use, such as the economical design of a horse ranch to allow for direct movement around the premises (Smagorinsky, Pettis, & Reed, 2004; see Chapter 8).

The development of these categories is not, from my theoretical perspective, a vehicle for producing a positivistic, static representation of reality. Rather, it is to align my analysis with my motivating theory in ways that make my own subjectivity in relation to the data clear and unambiguous. Doing so would not preclude someone else from approaching the data in a different way for different purposes, but rather delineates the ways in which the perspective that I take with my collaborator contributes to our construction of the situation. The degree to which we do so persuasively and credibly becomes apparent when our work goes through the review process and our peers judge how effectively we have argued from the data.

Collaborative coding and reliability When I wrote my dissertation (employing protocol analysis of writers before and after writing instruction to contrast the effects of different modes of instruction on writers' processes; see Smagorinsky, 1991b), my committee expected me to demonstrate the reliability and validity of my investigative method. I coded my data, then trained a second rater in my coding system and had her code 15% of my data with an agreement level of at least 80%². Traditionally, such a result confirms the reliability of the codes in that two independent raters arrive at roughly the same conclusions when putting the system into effect on a sample of the data corpus. Although this method has been questioned by poststructuralists such as Harding (1991) because of the tendency in the field to associate reliability with confirmed truth, it remains a standard measure in much social science research.

My approach to research within the sociocultural tradition of Vygotsky has led me to accept, however, neither the traditional notion that agreement equals reliability nor the poststructural view that agreement represents a chimera masquerading as truth. I employ a second coder, yet that coder, usually a doctoral student, works with me throughout the coding process as we labor through the data and discuss each data segment before agreeing on how to bracket and code it. In other words, we reach agreement on each code through collaborative discussion, rather than independent corroboration; and our initial coding is often a provisional system that gets refined as we continue our discussions, occasionally becoming further refined as the research report goes through the review process and feedback suggests the need to rethink categories.

Undoubtedly, there is an uneven relationship when I work with a graduate student because the data from most of the studies we do are from my collections, and I'm more or less in charge and more experienced with how to do this sort of thing. I also recognize the possibility that, because most of my students have been women, there are gender issues at work that could position me as a male reproducing the patriarchal hegemony that has traditionally led to inequities in research. How, some reviewers of my work have asked, can this work be collaborative when clearly the relationship is fundamentally and inevitably inequitable and hierarchical?

The answer has several facets. One advantage of working with good collaborators is that we have complementary areas of expertise. My work with Cindy O'Donnell-Allen³ (referenced throughout this book), for instance, took place in her high school English class. She understood the setting of the students' work far better than I did. In accounting for the context of the research, she took a leading role in terms of knowledge about the school, community, faculty traditions, curriculum, students, and other factors that affected the ultimate shape of the data. This knowledge was valuable both when considering the context of the students' schoolwork and in understanding how they produced texts and interpretations in the idiosetting of her classroom.

At times the students' expertise is more formal. Michelle Zoss, for instance, studied with me specifically because we shared an interest in the role of arts in English classes. Michelle herself is an accomplished artist with academic training in the technical aspects of art, art theory, and educational theories that inform art education. In our studies of students' construction of pictorial texts in both an Interior Design class (Smagorinsky et al., 2006) and in Cindy's English class (Smagorinsky, Zoss, & O'Donnell-Allen, 2005; Zoss, Smagorinsky, & O'Donnell-Allen, 2007) and later in her own independent research (Augustine & Zoss, 2006; Zoss, 2007; Zoss & Jones, 2008; Zoss & White, 2011), Michelle's considerably greater knowledge of art was instrumental in arriving at the interpretive lens through which we viewed the data and, as a consequence, in the determination of which terminology we used in coding the data within the general structure of identifying cultural tools, goals, and settings.

Collaborative coding thus provides a means through which levels of expertise may emerge through the process of discussion in relation to data. Outsiders should not automatically assume that there is a static, strictly hierarchical relationship between a professor and an accomplished doctoral student who has years of valuable teaching experience, is often involved in avocations that can inform research, and is reading and taking courses outside the professor's areas of expertise. Presumably, the professor has greater experience with the conduct of research that benefits and accelerates, and inevitably provides direction for, the student's *initial* learning and scholarly trajectory.

In contrast, when working independently, coders must employ a fixed coding system that the second rater either applies in accordance with the primary investigator's decisions or not. And given that any coding session that falls below 80% agreement can simply be called "training" before a higher rate of agreement is reached, the reification of this percentage cutoff is somewhat disingenuous. I regard the flexible and generative nature of the collaborative approach as having greater potential to produce an insightful reading of the data because each decision is the result of a serious and thoughtful discussion about what to call each and every data segment. Independent coding in contrast treats the system as a fixed entity, which denies its potential for negotiation as researchers work through data together.

The collaborative approach also provides abundant teaching opportunities. When discussing data or codes with a student, I often digress to explain how another research paradigm might consider the data (along with suggested readings); or we pause to conduct internet searches to clarify a point or fact; or we consult a source from my bookshelves; or I provide my knowledge of the personal histories, relationships, lineages, and trajectories of people I know in the field; or the student shares with me relevant teaching experiences or ideas from coursework and related readings; or we educate ourselves in the countless other ways that are possible when two people work together on a problem that they both find interesting and challenging. Because I consider my research shop to be a critical part of my teaching—as zones of proximal development in Moll's (1990) conception of ZPDs as social settings that shape particular kinds of learning possibilities—I view these sessions as central to the doctoral education of my students, and an experience that pays off given the foundation and initial support it provides them as they move into their own independent research.

Finally, working collaboratively with my students simply makes my work more enjoyable. It provides me with a smart, interesting, and motivated companion who can push me into new ways of thinking. I thus have an ongoing pipeline of vibrant, energetic, and contemporary thinkers and personalities to keep me from getting too stodgy or fixed in my ways as I grow older. The vitality that they bring to my office, and the good company that they provide as we work, are invaluable assets that keep my research enjoyable, fulfilling, and energizing. In this sense they contribute to a context for my work—a ZPD with an evolving motive, set of problems to consider, and new stimulating companions to refresh my viewpoint—that recon-textualizes my thinking in light of their perspectives and helps to redefine and reconfigure the purpose of my research.

THE CONTEXT OF THE INVESTIGATION

Vygotskian perspectives emphasize the subjectivities, attention to culture, and other relational and contextual factors that a researcher must take into account in order to situate research findings. It has thus become *de rigueur* for authors to include a section on the Context of the Investigation in their research reports. In many manuscripts, the Context section is included in the Method section, but I've begun breaking it out as a separate entity. Although context and method are related, contextual factors merit their own attention in research that emerges from Vygotskian theories of development that stress the fundamentally social nature of human frameworks for developing concepts and the need to understand the settings in which activity unfolds.

The context of any study is infinitely complex, so identifying the aspects of a setting that are relevant to the research can be a challenge (see Chapter 9). The most salient aspects of a setting's influence on its inhabitants may not be evident to a researcher who is not intimately familiar with all of the people and places

involved in the culture and its history. This problem suggests the importance to me of working closely with the teachers under study, involving them as collaborators in order not only to credit them for their work but to take advantage of their considerable *emic*, or insider's, knowledge of the setting, and to help invigorate and inform their teaching by adding this reflective element to their instruction. It further suggests the value of having teachers study their own classrooms, with or without outside collaborators, given that they know their context and students far better than any university researcher could.

An additional complication to accounting for context concerns the problem that what is germane may be highly confidential and not amenable to being reported, such as the personal histories of research participants with sensitive backgrounds. For instance, in a set of studies I did with John Coppock in his classroom—situated in an alternative school for recovering substance abusers (Smagorinsky & Coppock, 1994, 1995a, 1995b)—some of the students who volunteered to participate were in the federal witness protection program because they had testified against their drug dealers; their enrollment in the alternative school and recovery program was a condition of the terms of their agreement with prosecutors. Their experiences with drugs and alcohol were relevant to their scholastic work in the research, yet could not be included in the publications, as specified as part of our own agreement with the school administrators.

One peril of working in the Vygotskian tradition is its emphasis on a social-cultural-historical approach and the problem that accounting for all relevant social interaction grounded in cultural and historical antecedents is simply not possible. Paring it down to something manageable and relevant, without short-changing what matters, is a tremendously vexing job. As a school-based researcher, I often provide skeletal statistics about a school's size and demographics and profiles of the primary participants in the research. Yet what I include is inevitably inadequate in genuinely situating the study in its social context. A major culprit in this dilemma is the page limit of 25-35 pages provided by the typical academic journal; and yet even for those rare journals that allow free rein, reviewers often become impatient with lengthy accounts of context and urge reductions to allow for a quicker route to the findings. Findings, however, can only make sense when sufficiently contextualized, at least from the Vygotskian perspective I have appropriated.

I wrestle with this conundrum in every research report I write in both our initial preparation of the manuscript and the subsequent negotiations of the content of the Context section with a journal's reviewers and editors. This give-and-take with editors produces Context sections of different content and detail, even when settings overlap across studies. The ultimate shape of the Context section follows from what I am able to learn about and include and what an editor believes to be relevant to the report. These decisions are constrained by the page limits for both individual articles and the overall annual page maximum that a journal's sponsor allows its editors to produce.

And so the Context section, like much else about the publication process, is never entirely the product of the author's decisions. Rather, it is the result of a negotiated and at times collaborative process with editors and reviewers, all situated within the journal's historical mission and purview, the sponsoring organization's parameters for how much space is available for the journal as a whole, the economics of the publication business, and other factors that contribute to the ultimate shape and appearance of scholarship. In other words, any individual work of scholarship fits within a set of scholarly, economic, and idiosyncratic constraints that provide a motive and means of mediation for the direction and form that it takes.

THE EPICENTRIC ROLE OF THE METHOD SECTION

One of the most prevalent problems I find in manuscripts that I review for journal editors is a lack of alignment across the major sections of the paper (Introduction or Theoretical Framework, Method, Context, Findings or Results, Discussion). An author might invoke a framing theory but not explain how the method involves that theory; or might explain a method without referring back to it in the Findings section; or might pose research questions that are not addressed in the Findings section; or might explain findings yet provide a soapbox speech in the Discussion section that does not follow from the analysis. Or all of the above.

Authors often go awry when they either pose no research questions, or pose different questions at different points in the manuscript, or pose questions that are not answerable through the data, or pose answerable questions but present findings that appear unrelated to the questions. Studies stand the best chance of reaching publication, however, when an author poses a limited set of answerable questions, and then aligns the paper around them: making sure that they are theorized, that the method produces data that serve as evidence for claims, that the findings are presented in clear relation to the questions, and that the discussion follows from the analysis.

My experiences as a reviewer and member of dissertation committees suggest that achieving this degree of alignment is extraordinarily challenging for most authors. One way to promote such alignment is to use the Method section as the epicenter of the paper: the vehicle through which alignment can be, if not assured, at least systematically attempted. The linear final form of a completed APA-style research report is deceptive in terms of how the reports are actually written (Bracewell, 1992). I would never recommend writing the Theory section first, Method second, Context third, Findings fourth, and Discussion fifth. The process involves a lot more recursion in what gets written when (and inevitably, what gets written suggests that other areas need to get rewritten). I always write the Method section very early in the process because most of what I need to consider when writing it affects other parts of the paper.

The outline of the analytic approach—for me, usually the articulation of a coding system—establishes what I need to talk about elsewhere in the manuscript. If my codes reflect a social-cultural-historical orientation to the data, then I need to frame the study from this theoretical perspective. Ultimately, I need to ensure that if I claim this perspective, the language that I employ for naming my categories needs to be grounded in its terminology and constructs. For this reason, borrowed coding systems can be highly problematic because they were developed by someone else for, in all likelihood, other purposes and other data (see Bracewell & Breuleux, 1994, for a contrary perspective). Rather, codes need to be developed in a dialectic relation among the data, the theoretical framework, and whatever else a researcher brings to the analytic process.

Just as significantly, codes need to work in clear relation to the presentation of the findings so that the major sections of the manuscript are aligned. In most of my research, I both tabulate and explain my codes. Constructing the table involves more than just taking all the codes, putting them in a table, and including the frequency with which each occurred. Some means of organizing the codes is necessary in order for them to make theoretical sense. My major categories of goal, tool, and setting provide one convenient means of categorizing the codes initially. Still, I often find that some codes are redundant, some are so infrequent as to be irrelevant to the study's focus, and some are irrelevant to the research questions, and so must be eliminated or collapsed into the closest available robust category.

As a result, further data reduction is in order, forcing my collaborator and me to continue discussing which codes remain relevant to the study's focus, which are not, which need collapsing into single categories, and which need renaming; and to make other decisions that contribute to a clearly focused, well-documented study. This process in turn suggests how to organize and present the findings because of the focus it provides for the analysis. With the codes finally tabulated in a way that makes theoretical sense and provides a focus for the analysis, our effort to organize the Findings section in relation to both the research questions and the coding system becomes much more logical to us.

Further, the findings need to invoke the codes so that it's clear how the analysis has rendered data into findings. When a researcher only provides a general description of coding, readers never know how the findings were produced. But even when a method is clearly explained, an author often proceeds to report findings with no further mention of how the analysis produced them. Referring back to the analytic method while reporting findings ought to be a standard move in published research.

Referencing the method while reporting results remains a common practice for experimental researchers. An author might say in the Method section that comparative results were produced through the application of analysis of variance, and in the Findings section the author references those statistical tests when reporting specific findings. In one comparative study, for instance, Wu and Rubin (2000) report the following:

The first set of contrasts on the textual variables is the most extreme comparison. It compares Taiwanese students' writing in Chinese with U.S. students' writing in English. To control for spurious errors due to the number of dependent variables, we first conducted a MANCOVA. The multivariate nationality/language effect was significant (Wilks' Lambda = .453, $F(8, 68) = 10.27$, $p < .001$, $\text{Eta}^2 = .55$). There was no significant covariate effect for measured collectivism (Wilks' Lambda = .956, $F(8, 68) = .39$, $p = .92$, $\text{Eta}^2 = .04$), nor any significant effect of topic (Wilks' Lambda = .867, $F(8, 68) = 1.30$, $p = .26$, $\text{Eta}^2 = .13$). Nationality/language and topic did not interact (Wilks' Lambda = .899, $F(8, 68) = .96$, $p = .48$, $\text{Eta}^2 = .10$). (p. 164)

This sort of reporting illustrates the expectation for a statistically-driven study to refer to the analytic method—the particular tests run to study specific variables—when results of that analysis are presented.

Such procedures have not yet become standard in the reporting of the sort of qualitative research often produced in Vygotskian studies, and I strongly believe that the linkage between analytic method and findings produced ought to be. Doing so requires referencing the coding system or whatever other kind of method is employed to reduce data to a manageable form when rendering data into evidence for claims.

FINAL THOUGHTS

I see the Method section as having an impact in at least two ways. First, for the writer it can serve as the point of origin for the ways in which the other sections of the manuscript find their thrust and organization. A research method requires a theoretical perspective, and so the content of the opening framework for an article is suggested at least in part by the tenets behind the investigative method. Explicitly stated research questions need to be answerable through the methods employed in the research. Findings need to be specifically linked to method so that it is clear to readers how results have been rendered from data and how the theory that motivates the study is realized in the way that the data are analyzed and then organized for presentation.

In addition to providing the organizational principles for the author in constructing an evidence-based and warranted argument, a Method section is critical in readers' sense of trust in the claims of the study. As a reviewer I may find an opening theoretical gambit to be compelling, but if I can't reconstruct the author's means of collecting, reducing, and analyzing data, then I will have little faith that the construction of findings follows from responsible and consistent treatment of evidence, and will not likely recommend the paper for publication. Researchers put way too much time and effort into this enterprise for it only to be read by dissertation committee members or other groups of friends and colleagues. Paying attention to these issues has given my research a much better chance of finding a larger public audience.

THE METHOD SECTION IN SOCIAL SCIENCE

NOTES

- ¹ I capitalize Method when it refers to the major section of a report in which data collection, reduction, and analysis procedures are explained. I use the lower-case *m* when referring to the methods themselves. This same rule applies to the other sections of an APA-style research report: Introduction or Theoretical Framework, Context of the Investigation, Findings or Results, and Discussion.
- ² This second coder, Dorothea Anagnostopoulos, was at the time a master's degree student in the Chicago M.A.T. program. She has since completed her doctorate at Chicago and gone on to an outstanding career as a policy researcher at Michigan State University.
- ³ Cindy later completed her doctorate under my advisement at the University of Oklahoma and is now enjoying a successful career at Colorado State University.

AUTHOR'S AFTERWORD

In this book I have outlined what I see is available from the work of L. S. Vygotsky to inform 21st century literacy research. My effort is inevitably interpretive and subjective, and I thus make no claims to have provided a definitive or authoritative account of the Vygotskian framework I explicate. Because I know it with great familiarity, I have focused on my own literacy studies to illustrate the issues that I see at work, referencing other research as I see it fitting in with the framework that I see Vygotsky providing.

One reason that I have not referenced some work that claims a Vygotskian perspective is that I see far too many authors making insubstantial or “drive-by” references to the ZPD as sufficient for Vygotskian claims. As I have argued throughout this volume, I do not see a ZPD interpretation available unless the teaching and learning issues are broadened to include a social-cultural-historical grounding and perspective that takes into account issues of setting, telos, prolepsis, explicit mediation, goals, motive, intersubjectivity, and other factors that I have elaborated in these chapters.

Of course, others are sure to disagree, pointing to Vygotsky’s brief attention to the ZPD in *Mind in Society* and saying that he explicitly limited the ZPD to dyads and other small-setting instructional relationships. Yet readers must acknowledge that the chapters in *Mind in Society* are all taken out of their original contexts and assembled by the volume’s editors as an introductory set of essays. Among my goals with this book is to situate the ZPD in Vygotsky’s broader project to outline a comprehensive developmental psychology that takes into account the role of cultural labor in societally-situated, historically-grounded concept development. Picking and choosing facets such as the ZPD or “play” without attending to how they fit within his more comprehensive psychology strikes me as unwarranted and inattentive to what he was trying to accomplish as a Marxist developmental psychologist.

My own reading of Vygotsky is incomplete, and I continue to struggle with grasping his points even as I try to account for them in my own labor with data. As I have noted, I have acknowledged the need to update and revise his ideas, with the help of those who have read him extensively in order to suggest their own improvements, and with the help of my colleagues and students who have wrestled with his ideas along with me. Simply quoting Vygotsky to make a point is not tenable given the issues with which I opened this volume, and I expect that over time, as I continue to read both his oeuvre and the growing body of scholarship that draws on it in order to apply his principles to my own studies of literacy practices, I will join the field in continuing to reconsider his explication of a cultural psychology.

AUTHOR'S AFTERWORD

I should also note that any understanding I have of Vygotsky's theory has followed from my efforts to labor over data in conjunction with my reading of both Vygotsky and the scholarship that has been produced in his wake. I have related in this book how my thinking has changed over time as my own project has been mediated by his work in relation to my own. My own process of concept development has been, as Vygotsky would say, a twisting path as I have attempted to appropriate his specific points and update them as I both read the revisions of others and see the need to reformulate his ideas in relation to my analyses of data I have collected in U.S. regions and with diverse populations. I see this book as a provision effort to produce a text that represents my current understanding and expect that as I use it for continued reflection in light of new studies and other new developments, I will continue to refine and extend my thinking. I look forward to that challenge, and hope that others find this book useful in their own efforts to develop their own conceptual understandings in their own work.

With this book I have taken a long conversational turn, although I expect few to read it in one sitting. I thus anticipate that it provides readers with opportunities to put it in dialogue with other readings and experiences, and to engage it with their own responses, perhaps in the company of others. Through this ongoing conversation, based on the contributions of many scholars spanning decades and continents who apply and refract Vygotsky's framework through new populations and experiences, we advance our understanding of the issues he raised and help to revise and reconsider his ideas in order to account for socially, culturally, and historically mediated human development in its many and varied forms.

REFERENCES

- Adair, J. G., Sharpe, D., & Huynh, C. (1989). Hawthorne control procedures in educational experiments: A reconsideration of their use and effectiveness. *Review of Educational Research, 59*(2), 215–228.
- Addington, A. H. (2001). Talking about literature in university book club and seminar settings. *Research in the Teaching of English, 36*, 212–248.
- Alim, H. S. & Baugh, J. (Eds.) (2006). *Talkin Black talk: Language, education, and social change*. New York: Teachers College Press.
- Allington, R. L., & Woodside-Jiron, H. (1999). The politics of literacy teaching: How “research” shaped educational policy. *Educational Researcher, 28*(8), 4–13.
- Alvermann, D. (Ed.) (2010). *Adolescents' online literacies: Connecting classrooms, media, and paradigms*. New York: Peter Lang.
- American Association of University Women. (1995). *The AAUW Report: How schools shortchange girls*. New York: Marlowe.
- American Psychological Association. (2009). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.
- Anderson, J. (2005). *Mechanically inclined: Building grammar, usage, and style into writer's workshop*. Portland, ME: Stenhouse.
- Anderson, R. C., Hiebert, E. F., Wilkinson, I. A. G., & Scott, J. (1985). *Becoming a nation of readers*. Champaign, IL: National Academy of Education and Center for the Study of Reading.
- Anson, C. M., & Forsberg, L. L. (1990). Moving beyond the academic community: Transitional stages in professional writing. *Written Communication, 7*, 200–231.
- Apple, M. W. (1979). *Ideology and curriculum*. New York: Routledge & Kegan Paul.
- Apple, M. W. (1982). *Education and power*. Boston: Routledge & Kegan Paul.
- Applebee, A. N. (1974). *Tradition and reform in the teaching of English: A history*. Urbana, IL: National Council of Teachers of English.
- Applebee, A. N. (1981). *Writing in the secondary school: English and the content areas* (NCTE Research Report No. 21). Urbana, IL: National Council of Teachers of English.
- Applebee, A. N. (1984). *Contexts for learning to write: Studies of secondary school instruction*. Norwood, NJ: Ablex.
- Applebee, A. N. (1993). *Literature in the secondary school: Studies of curriculum and instruction in the United States* (NCTE Research Report No. 250). Urbana, IL: National Council of Teachers of English.
- Applebee, A. N., & Langer, J. A. (2011). A snapshot of writing in middle and high schools. *English Journal, 100*(6), 14–27.
- Atherton, J. S. (2011). *Learning and teaching: Constructivism in learning*. Retrieved March 19, 2011, from <http://www.learningandteaching.info/learning/constructivism.htm>
- Atkinson, Q. D. (2011). Phonemic diversity supports a serial founder effect model of language expansion from Africa. *Science, 332*(6027), 346–349.
- Augustine, S. M., & Zoss, M. (2006). Aesthetic flow experience in the teaching of pre-service Language Arts teachers. *English Education, 39*, 72–95.
- Bakhtin, M. M. (1981). *The dialogic imagination: Four essays by M. M. Bakhtin* (M. Holquist, Ed., C. Emerson & M. Holquist, Trans.). Austin, TX: University of Texas Press.
- Bakhtin, M. M. (1984). *Problems of Dostoevsky's poetics* (C. Emerson, Ed. & Trans.). Minneapolis, MN: University of Minnesota Press.

REFERENCES

- Bakhtin, M. M. (1986). *Speech genres and other late essays* (C. Emerson & M. Holquist, Eds., V. W. McGee, Trans.). Austin, TX: University of Texas Press.
- Bakhurst, D. (2007). Vygotsky's demons. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The Cambridge companion to Vygotsky* (pp. 50–76). New York: Cambridge University Press.
- Ballenger, C. (1999). *Teaching other people's children: Literacy and learning in a bilingual classroom*. New York: Teachers College Press.
- Ballenger, C. (2009). *Puzzling moments, teachable moments: Practicing teacher research in urban classrooms*. New York: Teachers College Press.
- Barnes, D. (1992). *From communication to curriculum* (2nd ed.). Portsmouth, NH: Heinemann.
- Barrett, S. E., Abdi, H., Murphy, G. L., & Gallagher, J. M. (1993). Theory-based correlations and their role in children's concepts. *Child Development*, *64*, 1595–1616.
- Barthes, R. (1981). Theory of the text. In R. Young (Ed.), *Untying the text* (pp. 31–47). Boston: Routledge & Kegan Paul.
- Bateson, G. (1972). *Steps to an ecology of mind: A revolutionary approach to man's understanding of himself*. New York: Ballantine.
- Bazerman, C. (1988). *Shaping written knowledge: The genre and activity of the experimental article in science*. Madison, WI: University of Wisconsin Press.
- Bazerman, C. (1994). Where is the classroom? In A. Freedman & P. Medway (Eds.), *Learning and teaching genre* (pp. 25–30). Portsmouth, NH: Heinemann.
- Bazerman, C. (Ed.). (2008). *Handbook of research on writing: History, society, school, individual, text*. New York: Erlbaum.
- Bazerman, C., & Paradis, J. G. (Eds.). (1991). *Textual dynamics of the professions: Historical and contemporary studies of writing in professional communities*. Madison, WI: University of Wisconsin Press. Retrieved December 30, 2008, from http://wac.colostate.edu/books/textual_dynamics/
- Beach, R., & Hynds, S. (1991). Research on response to literature. In R. Barr, M. L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. II, pp. 453–489). New York: Longman.
- Beaufort, A. (2006). Writing in the professions. In P. Smagorinsky (Ed.), *Research on composition: Multiple perspectives on two decades of change* (pp. 217–242). New York: Teachers College Press and the National Conference on Research in Language and Literacy.
- Beaufort, A. (2009). Preparing adolescents for the literacy demands of the 21st century workplace. In L. Christenbury, R. Bomer, & P. Smagorinsky (Eds.), *Handbook of adolescent literacy* (pp. 239–255). New York: Guilford.
- Behrens, J. T., & Smith, M. L. (1996). Data and data analysis. In D. C. Berliner & R. C. Calfee (Eds.), *The handbook of educational psychology* (pp. 945–989). New York: Macmillan.
- Bein, E. S., Vlasova, T. A., Levina, R. E., Morozova, N. G., & Shif, Zh. I. (1993). Afterword. In R. W. Rieber & A. S. Carton (Eds.) *The collected works of L. S. Vygotsky. Volume 2: The fundamentals of defectology (abnormal psychology and learning disabilities)* (J. E. Knox & C. B. Stevens, Trans.) (pp. 302–314). New York: Plenum.
- Belgarde, M. J., LoRé, R. K., & Meyer, R. (2009). American Indian adolescent literacy. In L. Christenbury, R. Bomer, & P. Smagorinsky (Eds.), *Handbook of adolescent literacy* (pp. 415–430). New York: Guilford.
- Berger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge*. New York: Doubleday.
- Bereiter, C., & Scardamalia, M. (1987). *The psychology of written composition*. Hillsdale, NJ: Erlbaum.
- Berkenkotter, C., & Huckin, T. (1995). *Genre knowledge in disciplinary communication: Cognition/culture/power*. Mahwah, NJ: Erlbaum.
- Bickmore, S. T., Smagorinsky, P., & O'Donnell-Allen, C. (2005). Tensions between traditions: The role of contexts in learning to teach. *English Education*, *38*, 23–52.

REFERENCES

- Black, R. W. (2008). *Adolescents and online fan fiction*. New York: Peter Lang.
- Black, R. W., & Steinkuehler, C. (2009). Literacy in virtual worlds. In L. Christenbury, R. Bomer, & P. Smagorinsky (Eds.), *Handbook of adolescent literacy* (pp. 271–286). New York: Guilford.
- Bleich, D. (1975). *Readings and feelings: An introduction to subjective criticism*. Urbana, IL: National Council of Teachers of English.
- Blonsky, M. (Editor) (1985). *On signs*. Baltimore: The Johns Hopkins University Press.
- Blonsky, P. P. (1921). *Essays in scientific psychology*. Moscow: State Publishing House.
- Bloom, B. S. (1954). The thought process of students in discussion. In S.J. French (Ed.), *Accent on teaching: Experiments in general education* (pp. 23–46). New York: Harper & Brothers.
- Bloom, B. S. (Ed.). (1956). *Taxonomy of educational objectives: The classification of educational goals* (Handbook I: Cognitive domain). New York: Longmans Green.
- Bloom, B. S. (1976). *Human characteristics and school learning*. New York: McGraw-Hill.
- Bloom, L. Z. (1980, March). *The composing processes of anxious and non-anxious writers: A naturalistic study*. Paper presented at the annual meeting of the conference on College Composition and Communication, Washington, DC.
- Bloome, D., & Bailey, F. (1992). Studying language through events, particularity, and intertextuality. In R. Beach, J. Green, M. Kamil, & T. Shanahan (Eds.), *Multiple disciplinary perspectives on literacy research* (pp. 181–210). Urbana, IL: National Conference on Research in English & National Council of Teachers of English.
- Bloome, D., & Egan-Robertson, A. (1993). The social construction of intertextuality in classroom reading and writing lessons. *Reading Research Quarterly*, 28, 304–333.
- Booth, W. (1974). *A rhetoric of fiction*. Chicago: University of Chicago Press.
- Boring, E. G. (1950). *A history of experimental psychology*. New York: Appleton, Century, Crofts.
- Bottomore, T., Harris, L., Kiernan, V. G., & Miliband, R. (Eds.). (1983). *A dictionary of Marxist thought*. Oxford, UK: Blackwell.
- Bourdieu, P. (1994). *Language and symbolic power*. Cambridge, MA: Harvard University Press.
- Bracewell, R. J. (1992). Metacognition in writing: Investigating the control of writing skills. In R. E. Young, J. R. Hayes, M. L. Matchett, M. McCaffrey, & C. Cochran (Eds.), *Reading empirical research studies: The rhetoric of research*. Mahwah, NJ: Erlbaum.
- Bracewell, R. J., & Breuleux, A. (1994). Substance and romance in analyzing think-aloud protocols. In P. Smagorinsky (Ed.), *Speaking about writing: Reflections on research methodology* (pp. 55–88). Thousand Oaks, CA: Sage.
- Braddock, R., Lloyd-Jones, R., & Schoer, L. (1963). *Research in written composition*. Champaign, IL: National Council of Teachers of English.
- Brand, A. G., & Powell, J. L. (1986). Emotions and the writing process. A description of apprentice writers. *Journal of Educational Research*, 79.
- Brodkey, L. (1992). Articulating poststructural theory in research on literacy. In R. Beach, J. L. Green, M. L. Kamil, & T. Shanahan (Eds.), *Multidisciplinary perspectives on literacy research* (pp. 293–318). Urbana, IL: National Conference on Research in English and National Council of Teachers of English.
- Brown, A. L., & Palincsar, A. S. (1989). Guided, cooperative learning and individual knowledge acquisition. In L. Resnick (Ed.), *Knowing, learning, and instruction: Essays in honor of Robert Glaser* (pp. 393–451). Hillsdale, NJ: Erlbaum.
- Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32–42.
- Bruner, J. (1986). *Actual minds, possible worlds*. Cambridge, MA: Harvard University Press.
- Burke, K. (1941). *The philosophy of literary form: Studies in symbolic action*. Baton Rouge, LA: Louisiana State University Press.

REFERENCES

- Castagno, A. E., & Brayboy, B. M. J. (2008). Culturally responsive schooling for Indigenous youth: A review of the literature. *Review of Educational Research, 78*, 941–993.
- Cazden, C. B. (1979). Peekaboo as an instructional model: Discourse development at home and at school. *Papers and Reports on Child Language Development, 17*, 1–19.
- Cazden, C. B. (1988). *Classroom discourse: The language of teaching and learning*. Portsmouth, NH: Heinemann.
- Cazden, C. B. (1996). Selective traditions: Readings of Vygotsky in writing pedagogy. In D. Hicks (Ed.), *Child discourse and social learning: An interdisciplinary perspective*. New York: Cambridge University Press.
- Cherland, M. R. (1994). *Private practices: Girls reading fiction and constructing identity*. London: Taylor & Francis.
- Cherryholmes, C. (1988). *Power and criticism: Poststructural investigations in education*. New York: Teachers College Press.
- Chin, E. (1994). Ethnographic interviews and writing research. In P. Smagorinsky (Ed.), *Speaking about writing: Reflections on research methodology* (pp. 247–272). Thousand Oaks, CA: Sage.
- Chin, E. (1994). Redefining “context” in research on writing. *Written Communication, 11*, 445–482.
- Christenbury, L. (Ed.). (1996). The great debate (again): Teaching grammar and usage. Special themed issue of *English Journal, 85*(7). Available at <http://www.ncte.org/journals/ej/issues/v85-7>
- Christenbury, L., Bomer, R., & Smagorinsky, P. (Eds.). (2009). *Handbook of adolescent literacy research*. New York: Guilford.
- Christoph, J. N., & Nystrand, M. (2001). Taking risks, negotiating relationships: One teacher’s transition toward a dialogic classroom. *Research in the Teaching of English, 36*, 249–286.
- Cibulka, J. G. (2009). *Meeting urgent national needs in P-12 education: Improving relevance, evidence, and performance in teacher preparation*. Washington, DC: National Council for Accreditation of Teacher Education. Retrieved July 5, 2009, from <http://www.ncate.org/documents/news/White%20paper%20final%206-15-09.pdf>
- Claparede, E. (1934). Genese de l’hypotheses (Genesis of the hypotheses). *Archives de psychologie, 24*, 1–155.
- Coe, R. M., & Freedman, A. (1998). Appendixes. In Genre theory: Australian and north American approaches. In M. L. Kennedy (Ed.), *Theorizing composition: A critical sourcebook of theory and scholarship in contemporary composition studies* (pp. 41–107). Westport, CT: Greenwood. Retrieved February 25, 2011, from <http://www2.cortland.edu/dotAsset/293028.pdf>
- Cohen, A. P. (1989). *The symbolic construction of community*. New York: Routledge.
- Cohen, D. K. (1989). Teaching practice: Plus que ça change.... In P. W. Jackson (Ed.), *Contributing to educational change: Perspectives on research and practice* (pp. 27–84). Berkeley, CA: McCutchan.
- Cole, M. (1985). The zone of proximal development: Where culture and cognition create each other. In J. V. Wertsch (Ed.), *Culture, communication, and cognition: Vygotskian perspectives* (pp. 146–161). New York: Cambridge University Press.
- Cole, M. (1992). Context, modularity, and the cultural constitution of development. In L. T. Winegar & J. Valsiner (Eds.), *Children’s development within social context, Volume 2: Research and methodology* (pp. 5–31). Hillsdale, NJ: Erlbaum.
- Cole, M. (1993, March/April). *Vygotsky and writing: Reflections from a distant discipline*. Paper presented at the annual convention of the conference on College Composition and Communication, San Diego. Retrieved February 13, 2011, from <http://www.eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED360627>
- Cole, M. (1996). *Cultural psychology: A once and future discipline*. Cambridge, MA: Harvard University Press.

REFERENCES

- Cole, M. (2005). Cross-cultural and historical perspectives on the developmental consequences of education. *Human Development, 48*, 195–216. Retrieved January 6, 2009, from <http://lhc.ucsd.edu/People/MCole/humdev.pdf>
- Cole, M., & Gajdamaschko, N. (2007). Vygotsky and culture. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The Cambridge companion to Vygotsky* (pp. 193–211). New York: Cambridge University Press.
- Cole, M., Engeström, Y., & Vasquez, O. (Eds.). (1997). *Mind, culture, and activity: Seminal papers from the laboratory of comparative human cognition*. New York: Cambridge University Press.
- Cole, M., Levitin, K., & Luria, A., (2006). *The autobiography of Alexander Luria. A dialogue with The Making of Mind*. Mahwah, NJ: Erlbaum.
- Compaine, B. M. (Ed.). (2001). *The digital divide: Facing a crisis or creating a myth?* Cambridge, MA: MIT Press.
- Comte, A. (1830–1842). *The course of positive philosophy* (H. Martineau, Trans.). New York: Calvin Blanchard. Retrieved February 7, 2011, <http://www.faculty.fairfield.edu/faculty/hodgson/Courses/so11/frameworks/fpintro.html>
- Connor, C. M., Morrison, F. J., Fishman, B. J., Ponitz, C. C., Glasney, S., Underwood, P. S., et al. (2009). The ISI classroom observation system: Examining the literacy instruction provided to individual students. *Educational Researcher, 38*, 85–99. Retrieved March 25, 2011, from <http://edr.sagepub.com/content/38/2/85.full>
- Cope, B., & Kalantzis, M. (Eds.). (2000). *Multiliteracies: Literacy learning and the design of social futures*. New York: Routledge.
- Coppock, J. W. (1999). *Multiple intelligences—N characters in search for a solution: An approach for a personal and social heuristic*. Unpublished doctoral dissertation, University of Oklahoma.
- Craik, F. I. M., & Lockhart, R. S. (1972). Levels of processing: A framework for memory research. *Journal of Verbal Learning and Verbal Behavior, 11*, 671–684.
- Croninger, R. G., & Valli, L. (2009). “Where is the action?” Challenges to studying the teaching of reading in elementary classrooms. *Educational Researcher, 38*, 100–108. Retrieved March 25, 2011 from <http://edr.sagepub.com/content/38/2/100.full>
- Csikszentmihalyi, M., & Larson, R. (1984). *Being adolescent: Conflict and growth in the teenage years*. New York: Basic Books.
- Csikszentmihalyi, M., Rathunde, K., & Whalen, S. (1993). *Talented teenagers: The roots of success and failure*. New York: Cambridge University Press.
- Cuban, L. (1993). *How teachers taught: Constancy and change in American classrooms, 1890–1990*. New York: Teachers College Press.
- Cushman, E., Barbier, S., Mazak, C., & Petrone, R. (2006). Family and community literacies. In P. Smagorinsky (Ed.), *Research on composition: Multiple perspectives on two decades of change* (pp. 187–216). New York: Teachers College Press and the National Conference on Research in Language and Literacy.
- Daiute, C. (2010). *Human development & political violence*. New York: Cambridge University Press.
- Daly, J., & Miller, M. (1975). The empirical development of an instrument to measure writing apprehension. *Research in the Teaching of English, 12*, 242–249.
- Daly, J. A., & Wilson, D. A. (1983). Writing apprehension, self-esteem, and personality. *Research in the Teaching of English, 17*, 327–341.
- D’Andrade, R. G. (1990). Some propositions about relations between culture and cognition. In J. Stigler, R. Shweder, & G. Herdt (Eds.), *Cultural psychology: Essays on comparative human development* (pp. 65–129). New York: Cambridge University Press.
- D’Andrade, R. G. (1995). *The development of cognitive anthropology*. New York: Cambridge University Press.

REFERENCES

- Daniels, H. (2007). Pedagogy. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The Cambridge companion to Vygotsky* (pp. 307–331). New York: Cambridge University Press.
- Daniels, H., Cole, M., & Wertsch, J. V. (Eds.). (2007). *The Cambridge companion to Vygotsky*. New York: Cambridge University Press.
- Dansereau, D., & Gregg, L. W. (1966). An information processing analysis of mental multiplication. *Psychonomic Science*, 6, 71–72.
- de Certeau, M. (1985). Practices of space. In M. Blonsky (Ed.), *On signs* (pp. 122–145). Baltimore: The Johns Hopkins University Press.
- Dean, D. M. (2000). Muddying boundaries: Mixing genres with five paragraphs. *English Journal*, 90(1), 53–56.
- del Rio, P., & Álvarez, A. (2007). Inside and outside the zone of proximal development: An eco-functional reading of Vygotsky. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The Cambridge companion to Vygotsky* (pp. 276–306). New York: Cambridge University Press.
- Delpit, L. (1995). *Other people's children: Cultural conflict in the classroom*. New York: New Press.
- Derrida, J. (1974/1967). *Of grammatology* (G. C. Spivak, Trans.). Baltimore: Johns Hopkins University Press.
- DeStigter, T. (1998). The Tesoros literacy project: An experiment in democratic communities. *Research in the Teaching of English*, 32, 10–42.
- DeStigter, T. (1999). Public displays of affection: Political community through critical empathy. *Research in the Teaching of English*, 33, 235–244.
- Dewey, J. (1900). *The school and society: Being three lectures* (2nd ed.). Chicago: University of Chicago Press.
- Dewey, J. (1902). *The child and the curriculum*. Chicago: University of Chicago Press.
- Dewey, J. (1916/1966). *Democracy and education. An introduction to the philosophy of education*. New York: Free Press.
- Dixon, J. (1975). *Growth through English: Set in the perspective of the seventies* (3rd ed.). Oxford, UK: Oxford University Press.
- Dobrin, D. (1994). Whither wisdom? In P. Smagorinsky (Ed.), *Speaking about writing: Reflections on research methodology* (pp. 275–289). Thousand Oaks, CA: Sage.
- Duke, N. K. (2000). 3.6 minutes per day: The scarcity of informational texts in first grade. *Reading Research Quarterly*, 35, 202–224.
- Duncker, K. (1945). On problem solving. *Psychological Monographs*, 58(Whole No. 270).
- Durkin, H. E. (1937). Trial-and-error, gradual analysis and sudden reorganization: An experimental study of problem solving. *Archives of Psychology*, 210.
- Durst, R. K. (1987). Review of G. Hillocks, *Research on written composition: New directions for teaching*. *Quarterly of the National Writing Project*, 8(3), 23–25.
- Durst, R. K. (1999). *Collision course: Conflict, negotiation, and learning in college composition*. Urbana, IL: National Council of Teachers of English.
- Dyson, A. H. (1990). Weaving possibilities: Rethinking metaphors for early literacy development. *Language Arts*, 81(2), 100–109.
- Dyson, A. H. (1999). Coach Bombay's kids learn to write: Children's appropriation of media material for school literacy. *Research in the Teaching of English*, 33, 367–402.
- Eco, U. (1985a). How culture conditions the colours we see. In M. Blonsky (Ed.), *On signs* (pp. 157–175). Baltimore: The Johns Hopkins University Press.
- Eco, U. (1985b). Producing signs. In M. Blonsky (Ed.), *On signs* (pp. 176–183). Baltimore: Johns Hopkins University Press.
- Ehrenworth, M., & Vinton, V. (2005). *The power of grammar: Unconventional approaches to the conventions of language*. Portsmouth, NH: Heinemann.
- Elbow, P. (1973). *Writing without teachers*. New York: Oxford University Press.

REFERENCES

- Ellis, V., Edwards, A., & Smagorinsky, P. (Eds.). (2010). *Cultural-historical perspectives on teacher education and development: Learning teaching*. New York: Routledge.
- Emig, J. (1977). Writing as a mode of learning. *College Composition and Communication*, 28, 122–128.
- Enciso, P. (1992). Creating the story world: A case study of a young reader's engagement strategies and stances. In J. Many & C. Cox (Eds.), *Reader stance and literary understanding: Exploring the theories, research, and practice* (pp. 75–102). Norwood, NJ: Ablex.
- Engeström, Y. (1987). *Learning by expanding: An activity-theoretical approach to developmental research*. Helsinki: Orienta-Konsultit.
- Engeström, Y. (1999). Activity theory and individual and social transformation. In Y. Engeström, R. Miettinen, & R.-L. Punamäki (Eds.), *Perspectives on activity theory* (pp. 19–38). New York: Cambridge University Press.
- Engeström, Y. (2007). Putting Vygotsky to work: The change laboratory as an application of double stimulation. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The Cambridge companion to Vygotsky* (pp. 363–382). New York: Cambridge University Press.
- Engeström, Y., & Miettinen, R. (1999). Introduction. In Y. Engeström, R. Miettinen, & R.-L. Punamäki (Eds.), *Perspectives on activity theory* (pp. 1–16). New York: Cambridge University Press.
- Ennis, R. H. (1989). Critical thinking and subject specificity: Clarification and needed research. *Educational Researcher*, 18(3), 4–10.
- Ericsson, K. A., & Newell, H. A. (1998). How to study thinking in everyday life: Contrasting think-aloud protocols with descriptions and explanations of thinking. *Mind, Culture, and Activity*, 5, 178–186.
- Ericsson, K. A., & Simon, H. A. (1978). *Retrospective verbal reports as data*. C.I.P. Working Paper No. 388.
- Ericsson, K. A., & Simon, H. A. (1979). *Thinking-aloud as data: Effects of verbalization*. C.I.P. Working Paper No. 397.
- Ericsson, K. A., & Simon, H. A. (1980). Verbal reports as data. *Psychological Review*, 87, 215–253.
- Ericsson, K. A., & Simon, H. (1984/1993). *Protocol analysis: Verbal reports as data*. Cambridge, MA: MIT Press.
- Ewing, E. T. (2001). Restoring teachers to their rights: Soviet education and the 1936 denunciation of pedology. *History of Education Quarterly*, 41, 471–493.
- Fahnestock, J., & Secor, M. (1991). The rhetoric of literary criticism. In C. Bazerman & J. Paradis (Eds.), *Textual dynamics of the professions: Historical and contemporary studies of writing in professional communities* (pp. 74–96). Madison, WI: University of Wisconsin Press. Retrieved February 25, 2011, from http://wac.colostate.edu/books/textual_dynamics/chapter3.pdf
- Fairclough, N. (1989). *Language and power*. London: Longmans.
- Fairclough, N. (1992). *Discourse and social power*. London: Polity Press.
- Fairclough, N. (2000). Multiliteracies and language: Orders of discourse and intertextuality. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 162–181). New York: Routledge.
- Farr, M. (1993). Essayist literacy and other verbal performances. *Written Communication*, 10, 4–38.
- Faust, M. (2000). Reconstructing familiar metaphors: John Dewey and Louise Rosenblatt on literary art as experience. *Research in the Teaching of English*, 35, 9–34.
- Fecho, B. (2001). “Why are you doing this?” Acknowledging and transcending threat in critical inquiry classrooms. *Research in the Teaching of English*, 36, 9–37.
- Fecho, B., Allen, J., Mazaros, C., & Inyega, H. (2006). Teacher research in writing classrooms. In P. Smagorinsky (Ed.), *Research on composition: Multiple perspectives on two decades of change* (pp. 108–140). New York: Teachers College Press and the National Conference on Research in Language and Literacy.

REFERENCES

- Feiman-Nemser, S. & Buchmann, M. (1985). Pitfalls of experience in teacher preparation. *Teachers College Record*, 87, 53–65.
- Feldman, J. (1959). *An analysis of predictive behavior in a two-choice situation*. Unpublished doctoral dissertation, Carnegie Institute of Technology.
- Finders, M. (1997). *Just girls: Hidden literacies and life in junior high*. New York: Teachers College Press.
- Fine, G. A. (1987). *With the boys*. Chicago: University of Chicago Press.
- Fine, M. (1991). *Framing dropouts: Notes on the politics of an urban high school*. Albany, NY: SUNY Press.
- Fine, S., & Fine, A. N. (2007). *War/Dance*. New York: THINKFilm. Available at <http://topdocumentaryfilms.com/war-dance/>
- Fish, S. (1980). *Is there a text in this class?* Cambridge, MA: Harvard University Press.
- Fitch, W. T. (2000). The evolution of speech: A comparative review. *Trends in Cognitive Sciences*, 4(7), 258–267. Retrieved February 25, 2011, from <http://www3.isrl.illinois.edu/~junwang4/langev/localcopy/pdf/fitch00speech.pdf>
- Flanagan, J. C. (1954). The critical incident technique. *Psychological Bulletin*, 51, 327–358.
- Floriani, A. (1993). Negotiating what counts: Roles and relationships, content and meaning, texts and contexts. *Linguistics and Education*, 5, 241–274.
- Flower, L. S., & Hayes, J. R. (1977). Problem-solving strategies and the writing process. *College English*, 39, 449–461.
- Flower, L. S., & Hayes, J. R. (1980a). Identifying the organization of writing processes. In L. W. Gregg & E. R. Steinberg (Eds.), *Cognitive processes in writing* (pp. 3–30). Hillsdale, NJ: Erlbaum.
- Flower, L. S., & Hayes, J. R. (1981). The pregnant pause: An inquiry into the nature of planning. *Research in the Teaching of English*, 15, 229–243.
- Flower, L. S., & Hayes, J. R. (1984). The representation of meaning in writing. *Written Communication*, 1, 120–160.
- Foucault, M. (1972). *The archaeology of knowledge and the discourse on language* (A. M. Sheridan Smith, Trans.). New York: Pantheon.
- Fox, R. F. (1980). Treatment of writing apprehension and its effects on composition. *Research in the Teaching of English*, 14, 39–49.
- Frake, C. O. (1983). Did literacy cause the great cognitive divide? *American Ethnologist*, 10, 368–371.
- Fránquiz, M. E., & Salazar, M. (2007). Ni de aquí, ni de allá: Latin@ youth crossing linguistic and cultural borders. *The Journal of Border Educational Research*, 6(1), 101–117.
- Freedman, S. W., Simons, E. R., Kalnin, J. S., Casareno, A., & The M-CLASS Teams. (1999). *Inside city schools: Investigating literacy in multicultural classrooms*. New York: Teachers College Press.
- Friedan, B. (1963). *The feminine mystique*. New York: W. W. Norton.
- Fu, D., & Graff, J. M. (2009). The literacies of new immigrant youth. In L. Christenbury, R. Bomer, & P. Smagorinsky (Eds.), *Handbook of adolescent literacy research* (pp. 400–414). New York: Guilford.
- Gall, M. D., & Rhody, T. (1987). Review of research on questioning techniques. In W. W. Wilen (Ed.), *Questions, questioning techniques, and effective teaching* (pp. 23–48). Washington, DC: National Education Association.
- Gallas, K. (1994). *The languages of learning: How children talk, write, dance, draw, and sing their understanding of the world*. New York: Teachers College Press.
- Gallas, K. (2000, November). *Teachers and research*. Invited address to the annual breakfast of the National Conference on Research in Language and Literacy at the fall convention of the National Council of Teachers of English, Milwaukee.
- Gallas, K. (2001). “Look, Karen, I’m running like Jello”: Imagination as a question, a topic, a tool for literacy research and learning. *Research in the Teaching of English*, 35, 457–492.

REFERENCES

- Gallas, K., & Smagorinsky, P. (2002). Approaching texts in school. *The Reading Teacher*, 56(1), 54–61.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Gates, H. L. (1988). *The signifying monkey: A theory of Afro-American literary criticism*. New York: Oxford University Press.
- Gee, J. (1990). *Social linguistics and literacies: Ideology in discourse*. New York: Falmer.
- Gee, J. (1992). *The social mind: Language, ideology, and social practice*. New York: Bergin & Garvey.
- Gee, J. P. (2003). *What video games have to teach us about learning and literacy*. New York: Palgrave Macmillan.
- Geertz, C. (1973). *The interpretation of culture*. New York: Basic Books.
- Gelman, S. A. (1999). *Dialogue on early childhood science, mathematics, and technology education: A context for learning: Concept development in preschool children*. American Association for the Advancement of Science. Retrieved April 17, 2011, from <http://www.project2061.org/publications/earlychild/online/context/gelman.htm>
- Gies, F., & Gies, J. (1994). *Cathedral, forge, and waterwheel: Technology and invention in the middle ages*. New York: HarperCollins.
- Goodlad, J. I. (1984). *A place called school: Prospects for the future*. New York: McGraw-Hill.
- Goodman, Y. M., & Goodman, K. S. (1990). Vygotsky in a whole-language perspective. In L. C. Moll (Ed.), *Vygotsky and education: Instructional implications and applications of sociohistorical psychology* (pp. 223–250). New York: Cambridge University Press.
- Graham, P., Hudson-Ross, S., Adkins, C., McWhorter, P., & McDuffie Stewart, J. (Eds.). (1999). *Teacher/mentor: A dialogue for collaborative learning*. New York: Teachers College Press.
- Graham, S., & Perin, D. (2007). *Writing next: Effective strategies to improve writing of adolescents in middle and high schools*. Washington, DC: Alliance for Excellent Education.
- Graves, D. H. (1983). *Writing: Teachers and children at work*. Portsmouth, NH: Heinemann.
- Gray, R. D., & Atkinson, Q. D. (2003). Language-tree divergence times support the Anatolian theory of Indo-European origin. *Nature*, 426, 435–439.
- Gredler, M., & Shields, C. (2004). Does no one read Vygotsky's words? Commentary on Glassman. *Educational Researcher*, 33(2), 21–25.
- Grigorenko, E., Mambino, E., & Preiss, D. (Eds.) (2011). *Handbook of writing: A mosaic of perspectives and views*. New York: Psychology Press.
- Grossman, P. L., Smagorinsky, P., & Valencia, S. (1999). Appropriating tools for teaching English: A theoretical framework for research on learning to teach. *American Journal of Education*, 108(1), 1–29.
- Grossman, P. L., & Stodolsky, S. S. (1994). Considerations of content and circumstances of secondary school teaching. In L. Darling-Hammond (Ed.), *Review of Research in Education*, (Vol. 20, pp. 179–222). Washington, DC: American Educational Research Association.
- Gutiérrez, K., & Stone, L. (2000). Synchronic and diachronic dimensions of social practice: An emerging methodology for cultural-historical perspectives on literacy learning. In C. D. Lee & P. Smagorinsky (Eds.), *Vygotskian perspectives on literacy research: Constructing meaning through collaborative inquiry* (pp. 150–164). New York: Cambridge University Press.
- Hanna, J. L. (1987). *To dance is human: A theory of nonverbal communication*. Chicago: University of Chicago Press.
- Harding, S. (1991). *Whose science? Whose knowledge? Thinking from women's lives*. Ithaca, NY: Cornell University Press.
- Harste, J. C., Woodward, V. A., & Burke, C. L. (1984). *Language stories and literacy lessons*. Portsmouth, NH: Heinemann.
- Hartman, D. K. (1992). Intertextuality and reading: Reconceptualizing the reader, the text, the author, and the context. *Linguistics and Education*, 4, 295–311.

REFERENCES

- Haussamen, B., Benjamin, A., Kolln, M., & Wheeler, R. S. (2003). *Grammar alive! A guide for teachers*. Urbana, IL: National Council of Teachers of English.
- Hawking, S. W. (1988). *A brief history of time: From the big bang to black holes*. New York: Bantam.
- Hayes, J. R., & Flower, L. S. (1983). Uncovering cognitive processes in writing: An introduction to protocol analysis. In P. Mosenthal, L. Tamor, & S. Walmsley (Eds.), *Research in writing: Principles and methods* (pp. 207–220). New York: Longman.
- Healey, J. F. (2005). *Race, ethnicity, gender, and class: The sociology of group conflict and change*. Newbury Park, CA: Pine Forge.
- Heath, S. B. (1983). *Ways with words: Language life, and work in communities and classrooms*. New York: Cambridge University Press.
- Heath, S. B. (1991). The sense of being literate: Historical and cross-cultural features. In R. Barr, M. L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research: Volume II* (pp. 3–25). New York: Longman.
- Hedegaard, M. (2007). The development of children's conceptual relation to the world with focus on concept in pre-school children's activity. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The Cambridge companion to Vygotsky* (pp. 246–275). New York: Cambridge University Press.
- Hendrix, G. (1947). A new clue to transfer of training. *Elementary School Journal*, 48, 197–208.
- Herrenkohl, L. R., & Wertsch, J. V. (1999). The use of cultural tools: Mastery and appropriation. In I. Sigel (Ed.), *Development of mental representation: Theories and applications* (pp. 421–442). Mahwah, NJ: Erlbaum.
- Hicks, D. (2002). *Reading lives: Working-class children and literacy learning*. New York: Teachers College Press.
- Hill, M. L. (2009). *Beats, rhymes, and classroom life: Hip-hop pedagogy and the politics of identity*. New York: Teachers College Press.
- Hillocks, G. (1986). *Research on written composition: New directions for teaching*. Washington, DC: National Conference on Research in English/ERIC Clearinghouse on Reading and Communications skills.
- Hillocks, G. (1995). *Teaching writing as reflective practice*. New York: Teachers College Press.
- Hillocks, G. (2002). *The testing trap: How state writing assessments control learning*. New York: Teachers College Press.
- Hillocks, G. (2009). Some practices and approaches are clearly better than others and we had better not ignore the differences. *English Journal*, 98(6), 23–29. Retrieved March 24, 2011, from <http://brn227.brown.wmich.edu/mcee/Hillocks.pdf>
- Hirsch, E. D. (1987). *Cultural literacy: What every American needs to know*. Boston: Houghton Mifflin.
- Hitler, A. (1925). *Mein kampf*. Retrieved February 7, 2011, from <http://www.crusader.net/texts/mk/>
- Holland, D., & Lachicotte, W. (2007). Vygotsky, mead, and the new sociocultural studies of identity. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The Cambridge companion to Vygotsky* (pp. 101–135). New York: Cambridge University Press.
- Holquist, M. (1981). Glossary. In M. Holquist (Ed.), *The dialogic imagination: Four essays by M. M. Bakhtin* (C. Emerson & M. Holquist, Trans., pp. 423–434). Austin, TX: University of Texas Press.
- Holladay, S. A. (1981, November). *Writing anxiety: What research tells us*. Paper presented at the Annual Meeting of the National Council of Teachers of English, Boston. ED216393.
- Honig, S. (2010). What do children write in science? A study of the genre set in a primary science classroom. *Written Communication*, 27, 87–119.
- Hull, G. A., & Nelson, M. E. (2005). Locating the semiotic power of multimodality. *Written Communication*, 22, 224–261.
- Hull, G. A., & Rose, M. (1990). "This wooden shack place": The logic of an unconventional reading". *College Composition and Communication*, 41, 287–298.

REFERENCES

- Human Events. (2005). *Ten most harmful books of the 19th and 20th centuries*. Washington, DC: Author. Retrieved February 7, 2011, from <http://www.humanevents.com/article.php?id=7591>
- Hundeide, K. (1985). The tacit background of children's judgments. In J. V. Wertsch (Ed.), *Culture, communication, and cognition: Vygotskian perspectives* (pp. 306–322). New York: Cambridge University Press.
- Hymes, D. (1974). *Foundations in sociolinguistics: An ethnographic approach*. Philadelphia: University of Pennsylvania Press.
- Immordino-Yang, M. H., & Damasio, A. R. (2007). We feel, therefore we learn: The relevance of affective and social neuroscience to education. *Mind, Brain, and Education*, 1(1), 3–10.
- Jacobs, D. T., & Jacobs-Spencer, J. (2001). *Teaching virtues: Building character across the curriculum*. Lanham, MD: Scarecrow Press.
- James, W. (1890). *The principles of psychology*. New York: Holt.
- Jaynes, J. (1976). *The origin of consciousness in the breakdown of the bicameral mind*. Boston: Houghton Mifflin.
- John Dewey Project on Progressive Education. (2002). *A brief overview of progressive education*. Retrieved March 16, 2008, from <http://www.uvm.edu/~dewey/articles/proged.html>
- Johnson, T. S., Smagorinsky, P., Thompson, L., & Fry, P. G. (2003). Learning to teach the five-paragraph theme. *Research in the Teaching of English*, 38, 136–176.
- John-Steiner, V. P. (1987). *Notebooks of the mind: Explorations in thinking*. New York: Harper & Row.
- John-Steiner, V. P. (1995). Cognitive pluralism: A sociocultural approach. *Mind, Culture, and Activity*, 2(1), 2–10.
- John-Steiner, V. P., & Meehan, T. M. (2000). Creativity and collaboration in knowledge construction. In C. D. Lee & P. Smagorinsky (Eds.), *Vygotskian perspectives on literacy development: Constructing meaning through collaborative inquiry* (pp. 31–50). New York: Cambridge University Press.
- Kalantzis, M., & Cope, B. (2000). Changing the role of schools. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 121–148). New York: Routledge.
- Kamberelis, G. (1999). Genre development and learning: Children writing stories, science reports, and poems. *Research in the Teaching of English*, 33, 403–460.
- Keynes, J. M. (1936). *General theory of employment, interest and money*. New York: Harcourt, Brace and Company. Retrieved February 7, 2011, from <http://www.marxists.org/reference/subject/economics/keynes/general-theory/>
- Killgallon, D., & Killgallon, J. (2006). *Grammar for middle school: A sentence-composing approach—A student worktext*. Portsmouth, NH: Heinemann.
- Kilpatrick, W. H. (1918). The project method. *Teachers College Record*, 19, 319–335.
- Kindlon, D., & Thompson, M. G. (2000). *Raising Cain: Protecting the emotional life of boys*. New York: Random House.
- Kinneavy, J. L. (1971). *A theory of discourse*. Englewood Cliffs, NJ: Prentice-Hall.
- Kinsey, A. C., et al. (1948). *Sexual behavior in the human male*. Philadelphia & Bloomington, IN: W.B. Saunders & Indiana University Press. Retrieved February 7, 2011, from <http://www.kinseyinstitute.org/research/ak-data.html>
- Kinsey, A. C., et al. (1953). *Sexual behavior in the human female*. Philadelphia & Bloomington, IN: W.B. Saunders & Indiana University Press. Retrieved February 7, 2011, from <http://www.kinseyinstitute.org/research/ak-data.html>
- Kintgen, E. R., Kroll, B. M., & Rose, M. (Eds.) (1988). *Perspectives on literacy*. Carbondale, IL: Southern Illinois University Press.
- Kirkland, D. (2010). 4 colored girls who considered social networking when suicide wasn't enuf: Exploring the literate lives of young Black women in online social communities. In D. Alvermann

REFERENCES

- (Ed.), *Adolescents' online literacies: Connecting classrooms, media, and paradigms* (pp. 71–90). New York: Peter Lang.
- Kochman, T. (1981). *Black and White styles in conflict*. Chicago: University of Chicago Press.
- Kotik-Friedgut, B., & Friedgut, T. H. (2008). A man of his country and his time: Jewish influences on Lev Semionovich Vygotsky's world view. *History of Psychology, 11*(1), 15–39.
- Kott, R. E. (2011, January-February). The origins of writing. *University of Chicago Magazine*. Retrieved February 11, 2011, from http://magazine.uchicago.edu/1102/features/the_origins_of_writing.shtml
- Kozulin, A. (1986). Vygotsky in context. In L. S. Vygotsky (Ed.), *Thought and language* (pp. xi–lvi, A. Kozulin, Ed. & Trans.). Cambridge, MA: MIT Press.
- Kozulin, A., & Gindis, B. (2007). Sociocultural theory and education of children with special needs: From defectology to remedial pedagogy. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The Cambridge companion to Vygotsky* (pp. 332–362). New York: Cambridge University Press.
- Kress, G. (1990). *Linguistic process and sociocultural change*. New York: Oxford University Press.
- Kress, G. (2000a). Design and transformation: New theories of meaning. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 153–161). New York: Routledge.
- Kress, G. (2000b). Multimodality. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 182–202). New York: Routledge.
- Kress, G. (2003, May). *Reading images: Multimodality, representation and new media*. Paper presented at the International Institute for Information Design Conference, Expert Forum for Knowledge Presentation: Preparing for the Future of Knowledge Presentation, Chicago. Retrieved February 26, 2011, from <http://www.knowledgepresentation.org/BuildingTheFuture/Kress2/Kress2.html>
- Kress, G., & van Leeuwen, T. (2001). *Multimodal discourse: The modes and media of contemporary communication*. London: Arnold.
- Kristeva, J. (1984). *Revolution in poetic language* (M. Waller, Trans.). New York: Columbia University Press.
- Laboratory of Comparative Human Cognition. (1978). Cognition as a residual category in anthropology. *Annual Review of Anthropology, 7*, 51–69. Retrieved February 11, 2011, from <http://lchc.ucsd.edu/Pubs/Cognition%20as%20a%20residual%20category%20in%20anthropology%202155687.pdf>
- Langer, J. A., & Applebee, A. N. (1987). *How writing shapes thinking: A study of teaching and learning* (NCTE Research Report No. 22). Urbana, IL: National Council of Teachers of English.
- Lashley, K. S. (1923). The behavioristic interpretation of Consciousness II. *Psychological Review, 30*, 329–353.
- Latour, B., & Woolgar, S. (1979). *Laboratory life: The social construction of scientific facts*. Thousand Oaks, CA: Sage.
- Lave, J. (1988). *Cognition in practice*. New York: Cambridge University Press.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York: Cambridge University Press.
- Lave, J., Murtaugh, M., & de la Rocha, O. (1984). The dialectic of arithmetic in grocery shopping. In B. Rogoff & J. Lave (Eds.), *Everyday cognition: Its development in social context* (pp. 67–94). Cambridge, MA: Harvard University Press.
- Lee, B. (1985). Intellectual origins of Vygotsky's semiotic analysis. In J. V. Wertsch (Ed.), *Culture, communication, and cognition: Vygotskian perspectives* (pp. 66–93). New York: Cambridge University Press.
- Lee, C. D. (1993). *Signifying as a scaffold for literary interpretation: The pedagogical implications of an African American discourse genre* (NCTE Research Report No. 26). Urbana, IL: National Council of Teachers of English.

REFERENCES

- Lee, C. D. (2000). Signifying in the zone of proximal development. In C. D. Lee & P. Smagorinsky (Eds.), *Vygotskian perspectives on literacy development: Constructing meaning through collaborative inquiry* (pp. 191–225). New York: Cambridge University Press.
- Lee, C. D. (2007). *The role of culture in academic literacies: Conducting our blooming in the midst of the whirlwind*. New York: Teachers College Press.
- Leki, I., Cumming, A., & Silva, T. (2006). Second language composition teaching and learning. In P. Smagorinsky (Ed.), *Research on composition: Multiple perspectives on two decades of change* (pp. 141–169). New York: Teachers College Press and the National Conference on Research in Language and Literacy.
- Lensmire, T. J. (1994). *When children write: Critical re-visions of the writing workshop*. New York: Teachers College Press.
- Leont'ev, A. N. (1978). *Activity, consciousness, and personality*. Englewood Cliffs, NJ: Prentice-Hall.
- Leont'ev, A. N. (1981). *Problems of the development of mind*. Moscow: Progress Publishers.
- Li, G. (2005). *Culturally contested pedagogy: Battles of literacy and schooling between mainstream teachers and Asian immigrant parents*. Albany, NY: SUNY Press.
- Lickona, T. (1991). *Educating for character: How our schools can teach respect and responsibility*. New York: Bantam.
- Lindblom, K. (Ed.). (2011). Beyond grammar: The richness of English language. Special themed issue of *English Journal*, 100(4). Available at <http://www.ncte.org/journals/ej/issues/v100-4>
- Loewen, J. W. (1996). *Lies my teacher told me: Everything your American history textbook got wrong*. New York: Touchstone.
- Loewen, J. W. (1999). *Lies across America: What our historic sites get wrong*. New York: The New Press.
- Lortie, D. C. (1975). *Schoolteacher: A sociological study*. Chicago: University of Chicago Press.
- Lotman, Y. (1974). The sign mechanism of culture. *Semiotica*, 12, 301–305.
- Lotman, Y. (1977). *The structure of the artistic text* (G. Lenhoff & R. Vroon, Trans.) (Michigan Slavic Contributions 7). Ann Arbor, MI: University of Michigan, Department of Slavic Languages and Literatures.
- Lott, J. G. (1996, March). *High schools are from Mars, colleges from Greece: Why we exist eons apart*. Paper presented at the annual meeting of the conference on College Composition and Communication, Milwaukee. ED 402 613.
- Luke, A. (1988). *Literacy, textbooks, and ideology: Postwar literacy instruction and the mythology of Dick and Jane*. New York: Falmer.
- Luke, C. (Ed.). (1996). *Feminisms and pedagogies of everyday life*. Albany, NY: State University of New York Press.
- Luria, A. R. (1928). The problem of the cultural development of the child. *Journal of Genetic Psychology*, 35, 493–506.
- Luria, A. R. (1932). *The nature of human conflicts*. New York: Liveright.
- Luria, A. R. (1976). *Cognitive development: Its cultural and social foundations* (M. Cole, Ed., M. Lopez-Morillas & L. Solotaroff, Trans.). Cambridge: Harvard University Press.
- Luria, A. R. (1978). The development of writing in the child. In M. Cole (Ed.), *The selected writings of A. R. Luria* (pp. 145–194). White Plains, NY: Sharpe.
- Luria, A. R. (1979). *The making of mind: A personal account of Soviet psychology*. Cambridge, MA: Harvard University Press.
- Majors, Y. J., Kim, J., & Ansari, S. (2009). Beyond hip-hop: A cultural context view of literacy. In L. Christenbury, R. Bomer, & P. Smagorinsky (Eds.), *Handbook of adolescent literacy* (pp. 343–359). New York: Guilford.
- Mandler, J. M. (2007). On the origins of the conceptual system. *American Psychologist*, 62, 741–751.

REFERENCES

- Marshall, J. D., Smagorinsky, P., & Smith, M. W. (1995). *The language of interpretation: Patterns of discourse in discussions of literature* (NCTE Research Report No. 27). Urbana, IL: National Council of Teachers of English.
- Marshall, J., & Smith, J. (1997). Teaching as we're taught: The university's role in the education of English teachers. *English Education*, 29, 246–268.
- Martin, J. (1993). Genre and literacy: Modeling context in educational linguistics. *Annual Review of Applied Linguistics*, 13, 141–172.
- Martínez-Roldán, C. M., & Smagorinsky, P. (2011). Computer-mediated learning and young Latino/a students' developing expertise. In P. Portes & S. Salas, *Vygotsky in 21st Century society: Advances in cultural historical theory and praxis with non-dominant communities* (pp. 162–179). New York: Peter Lang.
- Marx, K. (1867). *Das kapital* (S. Moore & E. Aveling, Trans., F. Engels, Ed.). Moscow: Progress Publishers. Retrieved February 7, 2011, from <http://www.marxists.org/archive/marx/works/1867-c1/>
- Marx, K., & Engels, F. (1848/1969). *The communist manifesto* (S. Moore, Trans.). Moscow: Progress Publishers. Retrieved February 7, 2011, from <http://www.marxists.org/archive/marx/works/download/pdf/Manifesto.pdf>
- Mayhew, A. C., & Edwards, K. C. (1966). *The Dewey school*. New York: Atheneum.
- MacArthur, C. A., Graham, S., & Fitzgerald, J. (Eds.). (2006). *Handbook of writing research*. New York: Guilford.
- McCann, T. M., Johannessen, L. R., & Ricca, B. P. (2005). *Supporting beginning English teachers: Research and implications for teacher induction*. Urbana, IL: National Council of Teachers of English.
- McCarthy, S. J., & Raphael, T. E. (1992). Alternative perspectives of reading/writing connections. In J. W. Irwin & M. Doyle (Eds.), *Reading/writing connections: Learning from research* (pp. 2–30). Newark, DE: International Reading Association.
- McCarthy, L. P., & Gerring, J. P. (1994). Revising psychiatry's charter document DSM-IV. *Written Communication*, 11(2), 147–192.
- McCarty, T. L., & Lomawaima, K. T. (2006). *To remain an Indian: Lessons in democracy from a century of Native American education*. New York: Teachers College Press.
- McCloskey, D. N. (1985). *The rhetoric of economics*. Madison, WI: University of Wisconsin Press.
- McCullough, D. (2001). *John Adams*. New York: Simon & Schuster.
- McLaren, P. (1992). Literacy research and the postmodern turn: Cautions from the margins. In R. Beach, J. L. Green, M. L. Kamil, & T. Shanahan (Eds.), *Multidisciplinary perspectives on literacy research* (pp. 319–339). Urbana, IL: National Conference on Research in English and National Council of Teachers of English.
- Mehan, H. (1979). *Learning lessons: Social organization in the classroom*. Cambridge, MA: Harvard University Press.
- Merriam-Webster. (1994–1996). *Merriam-Webster's collegiate dictionary, electronic edition* (Version 1.5). Springfield, MA: Author.
- Meshcheryakov, B. (2007). Terminology in L. S. Vygotsky's writing. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The Cambridge companion to Vygotsky* (pp.). New York: Cambridge University Press.
- Michaels, S., & Sohmer, R. (2000). Narratives and inscriptions: Cultural tools, power and powerful sense-making. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 267–288). New York: Routledge.
- Mikhailov, F. T. (2006). Problems of the method of cultural-historical psychology. *Journal of Russian and East European Psychology*, 44(1), 21–54. (S. D. Shenfield, Trans.). Retrieved March 19, 2011, from <http://lhc.ucsd.edu/mca/Paper/MikhailovProblemsofMethod.pdf>
- Miller, C. R. (1984). Genre as social action. *Quarterly Journal of Speech*, 70, 151–167.

REFERENCES

- Moll, L. C. (1990). Introduction. In L. C. Moll (Ed.), *Vygotsky and education: Instructional implications and applications of sociohistorical psychology* (pp. 1–27). New York: Cambridge University Press.
- Moll, L. C. (2000). Inspired by Vygotsky: Ethnographic experiments in education. In C. Lee & P. Smagorinsky (Eds.), *Vygotskian perspectives on literacy research* (pp. 256–268). New York: Cambridge University Press.
- Moll, L. C., & Greenberg, J. B. (1990). Creating zones of possibilities: Combining social contexts for instruction. In L. C. Moll (Ed.), *Vygotsky and education: Instructional implications and applications of sociohistorical psychology* (pp. 319–348). New York: Cambridge University Press.
- Moll, L. C., & Whitmore, K. F. (1993). Vygotsky in educational settings: Moving from individual transmission to social transaction. In E. Forman, N. Minick, & A. Stone (Eds.), *Contexts for learning: Sociocultural dynamics in children's development* (pp. 19–42). New York: Oxford University Press.
- Montessori, M. (1912). *The Montessori method: Scientific pedagogy as applied to child education in "The Children's Houses" with additions and revisions by the author* (A. E. George, Trans.). Cambridge, MA: Robert Bentley.
- National Council of Teachers of English. (2008). *The NCTE definition of 21st century literacies*. Retrieved February 26, 2011, from <http://www.ncte.org/positions/statements/21stcentdefinition>
- National Humanities Center. (n. d.). "You know, we are different nations and have different ways": European Americans and Native Americans view each other, 1700–1775. *National Humanities Center Resource Toolbox—Becoming American: The British Atlantic Colonies, 1690–1763*. Retrieved March 12, 2011, from <http://nationalhumanitiescenter.org/pds/becomingamer/peoples/text3/indianscolonists.pdf>
- Native Village. (n. d.). *Native Village European invasion library*. Retrieved March 12, 2011, from <http://www.nativevillage.org/Libraries/European%20Invasion.htm>
- New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 66, 60–92. Retrieved February 26, 2011, from http://wwwstatic.kern.org/filer/blogWrite44ManilaWebsite/paul/articles/A_Pedagogy_of_Multiliteracies_Designing_Social_Futures.htm
- Newell, A., & Simon, H. A. (1972). *Human problem solving*. Englewood Cliffs, NJ: Prentice-Hall.
- Newell, G. E., Tallman, L., & Letcher, M. (2009). A longitudinal study of consequential transitions in the teaching of literature. *Research in the Teaching of English*, 44, 89–126.
- Newkirk, T. (1987). Review of Research on written composition: New directions for teaching. *Teachers College Record*, 81, 155–157.
- Newman, D., Griffin, P., & Cole, M. (1989). *The construction zone: Working for cognitive change in school*. New York: Cambridge University Press.
- Nietzsche, F. (1886). *Beyond good and evil* (H. Zimmern, Trans.). Retrieved February 7, 2011, from <http://www.marxists.org/reference/archive/nietzsche/1886/beyond-good-evil/index.htm>
- Nisbett, R. E., & Wilson, W. T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, 84, 231–259.
- Noddings, N. (1992). *The challenge to care in schools: An alternative approach to education*. New York: Teachers College Press.
- Nystrand, M. (1986). *The structure of written communication: Studies in reciprocity between writers and readers*. Orlando, FL: Academic.
- Nystrand, M. (1997). *Opening dialogue: Understanding the dynamics of language and learning in the English classroom*. New York: Teachers College Press.
- Nystrand, M., Greene, S., & Wiemelt, J. (1993). Where did composition studies come from? An intellectual history. *Written Communication*, 10, 267–333.

REFERENCES

- Obama, B. (2011, January). *State of the union*. Available at http://www.huffingtonpost.com/2011/01/25/obama-state-of-the-union-_1_n_813478.html
- O'Donnell-Allen, C., & Smagorinsky, P. (1999). Revising Ophelia: Rethinking questions of gender and power in school. *English Journal*, 88(3), 35–42.
- Odell, L. & Goswami, D. (Eds.). (1985). *Writing in nonacademic settings*. New York: Guilford.
- Olson, D. R. (1977). From utterance to text: The bias of language in speech and writing. *Harvard Educational Review*, 47, 257–281.
- Olson, G. A., Metzger, E., & Ashton-Jones, E. (Eds.). (1989). *Advanced placement English: Theory, politics, and pedagogy*. Portsmouth, NH: Heinemann.
- Orfield, G., Losen, D., Wald, J., & Swanson, C., (2004). *Losing our future: How minority youth are being left behind by the graduation rate crisis*. Cambridge, MA: The Civil Rights Project at Harvard University. Contributors: Advocates for Children of New York, The Civil Society Institute. Retrieved January 29, 2011, from http://www.urban.org/UploadedPDF/410936_LosingOurFuture.pdf
- Osgood, C. (1953). *Method and theory of experimental psychology*. New York: Oxford University Press.
- Palka, J. (2010). The development of Maya writing. In C. Wood (Ed.), *Visible language: Inventions of writing in the ancient Middle East and beyond* (pp. 225–230). Chicago: The Oriental Institute of the University of Chicago. Retrieved February 11, 2011, from <http://oi.uchicago.edu/pdf/oimp32.pdf>
- Pea, R. D. (1993). Practices of distributed intelligence and designs for education. In G. Salomon (Ed.), *Distributed cognitions: Psychological and educational considerations* (pp. 47–87). New York: Cambridge University Press.
- Peirce, C. S. (1931–1958). *Collected papers of Charles Sanders Peirce* (Vols. 1–6, C. Hartshorne & P. Weiss, Eds., Vols. 7–8, A. W. Burks, Ed.). Cambridge, MA: Harvard University Press.
- Perla, R. J., & Carifio, J. (2006, May 14). Review of H. Frankfurt (2005). In *On bullshit*. Princeton, NJ: Princeton University Press. Retrieved November 8, 2006, from <http://edrev.asu.edu/reviews/rev491.htm>
- Peterson, R. A. (1997). *Creating country music: Fabricating authenticity*. Chicago: University of Chicago Press.
- Philips, S. U. (1972). Participant structures and communicative competence: Warm Springs children in community and classroom. In C. B. Cazden, V. P. John, & D. Hymes (Eds.), *Functions of language in the classroom* (pp. 370–394). New York: Teachers College Press.
- Philips, S. U. (1983). *The invisible culture: Communication in classroom and community on the Warm Springs Indian Reservation*. Long Grove, IL: Waveland.
- Pianta, R. C., & Hamre, B. K. (2009). Conceptualization, measurement, and improvement of classroom processes: Standardized observation can leverage capacity. *Educational Researcher*, 38, 109–119. Retrieved March 25, 2011, from <http://edr.sagepub.com/content/38/2/109.full>
- Portes, P., & Smagorinsky, P. (2010). Static structures, changing demographics: Educating for shifting populations in stable schools. *English Education*, 42, 236–248.
- Powers, W., Cook, J., & Meyer, R. (1979). The effect of compulsory writing on writing apprehension. *Research in the Teaching of English*, 13, 225–230.
- Prior, P. A. (1998). *Writing/disciplinary: A sociohistoric account of literate activity in the academy*. Mahwah, NJ: Erlbaum.
- Probst, R. E. (1988). *Response and analysis: Teaching literature in junior and senior high school*. Portsmouth, NH: Heinemann.
- Rabinowitz, P. J. (1987). *Before reading: Narrative conventions and the politics of interpretation*. Ithaca, NY: Cornell University Press. Retrieved January 30, 2009, from <http://www.ohiostatepress.org/index.htm?/books/complete%20pdfs/rabinowitz%20before/rabinowitz%20before.htm>

REFERENCES

- Rabinowitz, P., & Smith, M. W. (1997). *Authorizing readers: Resistance and respect in the teaching of literature*. New York: Teachers College Press.
- Reay, B. (1991). The context and meaning of popular literacy: Some evidence from nineteenth-century rural England. *Past and Present*, 131(1), 89–129.
- Reid, L. (Ed.). (2006). Contexts for teaching grammar. Special themed issue of *English Journal*, 95(5). Available at <http://www.ncte.org/journals/ej/issues/v95-5>
- Resnick, D. P., & Resnick, L. B. (1988). The nature of literacy: A historical explanation. *Harvard Educational Review*, 47, 370–385.
- Rheingold, H. L., & Cook, K. V. (1975). The contents of boys' and girls' rooms as an index of parents' behavior. *Child Development*, 46, 459–463. Retrieved April 18, 2006, from <http://www.jstor.org/view/00093920/ap030175/03a00210/0>
- Ricoeur, P. (1983). *Time and narrative* (Vol. 1, K. McLaughlin & D. Pellauer, Trans.). Chicago: University of Chicago Press.
- Rodina, K. A. (2006, June). *Vygotsky's social constructionist view on disability: A methodology for inclusive education*. Paper presented at the European Learning Styles Information Network (ELSIN) 11th Annual Conference, Oslo. Retrieved March 19, 2011, from <http://lhc.ucsd.edu/mca/Paper/VygotskyDisabilityEJSNE2007.pdf>
- Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*. New York: Oxford University Press.
- Rogoff, B. (2003). *The cultural nature of human development*. New York: Oxford University Press.
- Rogoff, B., & Lave, J. (Eds.). (1984). *Everyday cognition: Its development in social context*. Cambridge, MA: Harvard University Press.
- Rommertveit, R. (1974). *On message structure: A framework for the study of language and communication*. New York: Wiley.
- Rose, M. (Ed.). (1984). *Writer's block: The cognitive dimension*. Carbondale, IL: Southern Illinois University Press.
- Rosenblatt, L. M. (1978). *The reader, the text, the poem: The transactional theory of the literary work*. Carbondale, IL: Southern Illinois University Press.
- Rosenthal, R. (1966). *Experimenter effects in behavioral research*. New York: Appleton-Century-Crofts.
- Rosenwasser, D., & Stephen, J. (1997). *Writing analytically*. Fort Worth, TX: Harcourt Brace & Company.
- Roth, W.-M. (2007). Emotion at work: A contribution to third-generation cultural-historical activity theory. *Mind, Culture, and Activity*, 14(1–2), 40–63.
- Roth, W.-M. (2009). Realizing Vygotsky's program concerning language and thought: Tracking knowing (ideas, conceptions, beliefs) in real time. *Language and Education*, 23, 295–311.
- Roth, W.-M. (2010). Vygotsky's dynamic conception of the thinking-speaking relationship. *Pedagogies: An International Journal*, 5, 49–60.
- Roth, W.-M., & Lee, Y.-J. (2007). Vygotsky's neglected legacy: Cultural-historical activity theory. *Review of Educational Research*, 77, 186–232.
- Roth, W.-M., & Radford, L. (2011). *A cultural historical perspective on mathematics teaching and learning*. Boston: Sense Publishers.
- Rowan, B., & Correnti, R. (2009). Studying reading instruction with teacher logs: Lessons from the study of instructional improvement. *Educational Researcher*, 38, 120–131. Retrieved March 25, 2011, from <http://edr.sagepub.com/content/38/2/120.full>
- Rubin, J. Z., Provenzano, F. J., & Luria, Z. (1974). The eye of the beholder: Parents' views on sex of newborns. *American Journal of Orthopsychiatry*, 44, 512–519.
- Ruger, H. A. (1910). The psychology of efficiency. *Archives of Psychology*, 15.

REFERENCES

- Russell, D. (1997). Rethinking genre in school and society: An activity theory analysis. *Written Communication, 14*, 504–554.
- Russo, J., Johnson, E., & Stephens, D. (1989). The validity of verbal protocols. *Memory & Cognition, 17*, 759–769.
- Salomon, G. (1993). Editor's introduction. In G. Salomon (Ed.), *Distributed cognitions: Psychological and educational considerations* (pp. xi–xxi). New York: Cambridge University Press.
- Sarason, S. B. (1972). *The creation of settings and the future societies*. San Francisco: Jossey-Bass.
- Saxe, G. B. (1994). Studying cognitive development in sociocultural context: The development of a practice-based approach. *Mind, Culture, and Activity, 1*(3), 135–157.
- Schaafsma, D., Vinz, R. (2011). *Narrative inquiry: Approaches to language and literacy research*. New York: Teachers College.
- Schmandt-Besserat, D. (2011, February). *How writing came about*. Keynote address presented at the Writing Research Across Borders II, George Mason University, Washington, DC/Northern Virginia.
- Schultz, J. J., Florio, S., & Erickson, F. (1982). Where's the floor? Aspects of the cultural organization of social relationships in communication at home and in school. In P. Gilmore & A. A. Glatthorn (Eds.), *Children in and out of school: Ethnography and education* (pp. 88–123). Washington, DC: Center for Applied Linguistics.
- Schuster, E. H. (2003). *Breaking the rules: Liberating writers through innovative grammar instruction*. Portsmouth, NH: Heinemann.
- Scribner, S., & Cole, M. (1981). *The psychology of literacy*. Cambridge, MA: Harvard University Press.
- Searle, D. (1984). Scaffolding: Who's building whose building? *Language Arts, 61*, 480–483.
- Shaughnessy, E. L. (2010). The beginnings of writing in China. In C. Wood (Ed.), *Visible language: Inventions of writing in the ancient Middle East and beyond* (pp. 215–224). Chicago: The Oriental Institute of the University of Chicago. Retrieved February 11, 2011, from <http://oi.uchicago.edu/pdf/oimp32.pdf>
- Shmeleva, I. A. (2002). Developmental psychology: History, theory and practice from the Russian perspective. *Cross-Cultural Psychology Bulletin, 36*(1), 13–26. Retrieved June 19, 2008, from [http://www.iaccp.org/bulletin/PDF/web02\(1\).pdf](http://www.iaccp.org/bulletin/PDF/web02(1).pdf)
- Siegel, M. G. (1984). *Reading as signification*. Unpublished doctoral dissertation, Indiana University, Bloomington, IN.
- Simon, H. A. (1980). Cognitive science: The newest science of the artificial. *Cognitive Science, 4*, 33–46.
- Skinner, B. F. (1957). *Verbal behavior*. London: Methuen.
- Smagorinsky, J. (1963). General circulation experiments with the primitive equations. I. The basic experiment. *Monthly Weather Review, 91*, 99–164.
- Smagorinsky, P. (1987). Graves revisited: A look at the methods and conclusions of the New Hampshire study. *Written Communication, 4*, 331–342.
- Smagorinsky, P. (1989). The reliability and validity of protocol analysis. *Written Communication, 6*, 463–479.
- Smagorinsky, P. (1991a). *Expressions: Multiple intelligences in the English class*. Urbana, IL: National Council of Teachers of English.
- Smagorinsky, P. (1991b). The writer's knowledge and the writing process: A protocol analysis. *Research in the Teaching of English, 25*, 339–364.
- Smagorinsky, P. (1994). Think-aloud protocol analysis: Beyond the black box. In P. Smagorinsky (Ed.), *Speaking about writing: Reflections on research methodology* (pp. 3–19). Thousand Oaks, CA: Sage Publications.
- Smagorinsky, P. (1995a). The social construction of data: Methodological problems of investigating learning in the zone of proximal development. *Review of Educational Research, 65*, 191–212.

REFERENCES

- Smagorinsky, P. (1995b). Constructing meaning in the disciplines: Reconceptualizing writing across the curriculum as composing across the curriculum. *American Journal of Education*, 103, 160–184.
- Smagorinsky, P. (1997a). Personal growth in social context: A high school senior's search for meaning in and through writing. *Written Communication*, 14, 63–105.
- Smagorinsky, P. (1997b). Artistic composing as representational process. *Journal of Applied Developmental Psychology*, 18, 87–105.
- Smagorinsky, P. (1998). Thinking and speech and protocol analysis. *Mind, Culture, and Activity*, 5, 157–177.
- Smagorinsky, P. (1999a). Time to teach. *English Education*, 32, 50–73.
- Smagorinsky, P. (1999b). The world is a stage: Dramatic enactment as response to literature. In B. J. Wagner (Ed.), *Building moral communities through drama* (pp. 19–38). Stamford, CT: Ablex.
- Smagorinsky, P. (2001a). If meaning is constructed, what is it made from? Toward a cultural theory of reading. *Review of Educational Research*, 71, 133–169.
- Smagorinsky, P. (2001b). Rethinking protocol analysis from a cultural perspective. In M. McGroarty (Ed.), *Annual Review of Applied Linguistics* (Vol. 21, pp. 233–245). New York: Cambridge University Press.
- Smagorinsky, P. (2002). Growth through English revisited. *English Journal*, 91(6), 23–29.
- Smagorinsky, P. (Ed.). (2006). *Research on composition: Multiple perspectives on two decades of change*. New York: Teachers College Press and the National Conference on Research in Language and Literacy.
- Smagorinsky, P. (2007a). Vygotsky and the social dynamics of classrooms. *English Journal*, 97(2), 61–66.
- Smagorinsky, P. (2007b). A thick description of thick description: Review of K. Tobin & J. Kincheloe (Eds.), *Doing educational research: A handbook*. *Educational Researcher*, 36(4), 199–200, 202.
- Smagorinsky, P. (2008a). *Teaching English by design: How to create and carry out instructional units*. Portsmouth, NH: Heinemann.
- Smagorinsky, P. (2008b). The method section as conceptual epicenter in constructing social science research reports. *Written Communication*, 25, 389–411.
- Smagorinsky, P. (2008c, September). *The construction of setting in learning to teach*. Paper presented at the triennial meeting of the International Society for Cultural and Activity Research, San Diego.
- Smagorinsky, P. (2009a). Is it time to abandon the idea of “best practices” in the teaching of English? *English Journal*, 98(5).
- Smagorinsky, P. (2009b). The cultural practice of reading and the standardized assessment of reading instruction: When incommensurate worlds collide. *Educational Researcher*, 38(7), 522–527.
- Smagorinsky, P. (2009c). The architecture of textuality: A semiotic view of composing in and out of school. In R. Beard, D. Myhill, M. Nystrand, & J. Riley (Eds.), *Handbook of writing development* (pp. 363–373). Thousand Oaks, CA: Sage.
- Smagorinsky, P. (2010). A Vygotskian analysis of the construction of setting in learning to teach. In V. Ellis, A. Edwards, & P. Smagorinsky (Eds.), *Cultural-historical perspectives on teacher education and development: Learning teaching* (pp. 13–29). New York: Routledge.
- Smagorinsky, P. (2011a). Vygotsky's stage theory: The psychology of art and the actor under the direction of perezhivanie. *Mind, Culture, and Activity*.
- Smagorinsky, P. (2011b). Confessions of a mad professor: An autoethnographic consideration of neuroatypicality, extranormativity, and education. *Teachers College Record*, 113(8).
- Smagorinsky, P., Anglin, J. L., & O'Donnell-Allen, C. (in press). Identity, meaning, and engagement with school: A Native American student's composition of a life map in a senior English class. *Journal of American Indian Education*.
- Smagorinsky, P., Augustine, S. M., & Gallas, K. (2006). Rethinking rhizomes in writing about research. *The Teacher Educator*, 42, 87–105.

REFERENCES

- Smagorinsky, P., Augustine, S. M., & O'Donnell-Allen, C. (2007). Experiences with personal, academic, and hybrid writing: A study of two high school seniors. *English in Australia, 42*(3), 55–73.
- Smagorinsky, P., Cameron, T., & O'Donnell-Allen, C. (2007). Achtung maybe: A case study of the role of personal connection and art in the literary engagement of students with attentional difficulties. *Reading & Writing Quarterly*.
- Smagorinsky, P., Cook, L. S., & Johnson, T. S. (2003). The twisting path of concept development in learning to teach. *Teachers College Record, 105*, 1399–1436.
- Smagorinsky, P., Cook, L. S., Jackson, A. Y., Moore, C., & Fry, P. G. (2004). Tensions in learning to teach: Accommodation and the development of a teaching identity. *Journal of Teacher Education, 55*, 8–24.
- Smagorinsky, P., Cook, L. S., & Reed, P. (2005). The construction of meaning and identity in the composition and reading of an architectural text. *Reading Research Quarterly, 40*, 70–88.
- Smagorinsky, P., & Coppock, J. (1994). Cultural tools and the classroom context: An exploration of an alternative response to literature. *Written Communication, 11*, 283–310.
- Smagorinsky, P., & Coppock, J. (1995a). The reader, the text, the context: An exploration of a choreographed response to literature. *Journal of Reading Behavior, 27*, 271–298.
- Smagorinsky, P., & Coppock, J. (1995b). Reading through the lines: An exploration of drama as a response to literature. *Reading & Writing Quarterly, 11*, 369–391.
- Smagorinsky, P., & Daigle, E. A. (2011). The role of affect in students' writing for school. In E. Grigorenko, E. Mambrino, & D. Preiss (Eds.), *Handbook of writing: A mosaic of perspectives and views*. New York: Psychology Press.
- Smagorinsky, P., Daigle, E. A., O'Donnell-Allen, C., & Bynum, S. (2010). Bullshit in academic writing: A protocol analysis of a high school senior's process of interpreting Much Ado About Nothing. *Research in the Teaching of English, 44*, 368–405.
- Smagorinsky, P., & Fly, P. K. (1993). The social environment of the classroom: A Vygotskian perspective on small group process. *Communication Education, 42*(2), 159–171.
- Smagorinsky, P., Gibson, N., Moore, C., Bickmore, S., & Cook, L. S. (2004). Praxis shock: Making the transition from a student-centered university program to the corporate climate of schools. *English Education, 36*, 214–245.
- Smagorinsky, P., Johannessen, L. R., Kahn, E., & McCann, T. (2010). *The dynamics of writing instruction: A structured process approach for middle and high school*. Portsmouth, NH: Heinemann.
- Smagorinsky, P., Lakly, A., & Johnson, T. S. (2002). Acquiescence, accommodation, and resistance in learning to teach within a prescribed curriculum. *English Education, 34*, 187–213.
- Smagorinsky, P., & O'Donnell-Allen, C. (1998a). The depth and dynamics of context: Tracing the sources and channels of engagement and disengagement in students' response to literature. *Journal of Literacy Research, 30*, 515–559.
- Smagorinsky, P., & O'Donnell-Allen, C. (1998b). Reading as mediated and mediating action: Composing meaning for literature through multimedia interpretive texts. *Reading Research Quarterly, 33*, 198–226.
- Smagorinsky, P., & O'Donnell-Allen, C. (2000). Idiocultural diversity in small groups: The role of the relational framework in collaborative learning. In C. D. Lee & P. Smagorinsky (Eds.), *Vygotskian perspectives on literacy research: Constructing meaning through collaborative inquiry* (pp. 165–190). New York: Cambridge University Press.
- Smagorinsky, P., Pettis, V., & Reed, P. (2004). High school students' compositions of ranch designs: Implications for academic and personal achievement. *Written Communication, 21*, 386–418.
- Smagorinsky, P., & Smith, M. W. (1992). The nature of knowledge in composition and literary understanding: The question of specificity. *Review of Educational Research, 62*, 279–305.
- Smagorinsky, P., & Smith, M. W. (1999). Editors' introduction. *Research in the Teaching of English, 33*, 5–9.

REFERENCES

- Smagorinsky, P., & Taxel, J. (2005). *The discourse of character education: Culture wars in the classroom*. Mahwah, NJ: Erlbaum.
- Smagorinsky, P., & Whiting, M. E. (1995). *How English teachers get taught: Methods of teaching the methods class*. Urbana, IL: Conference on English Education and the National Council of Teachers of English.
- Smagorinsky, P., Wilson, A. A., & Moore, C. (2011). Teaching grammar and writing: A beginning teacher's dilemma. *English Education, 43*, 263–293.
- Smagorinsky, P., Zoss, M., & O'Donnell-Allen, C. (2005). Mask-making as identity project in a high school English class: A case study. *English in Education, 39*, 58–73.
- Smagorinsky, P., Zoss, M., & Reed, P. (2006). Residential interior design as complex composition: A case study of a high school senior's composing process. *Written Communication, 23*, 295–330.
- Smith, M. W. (1984). *Reducing writing apprehension*. Urbana, IL: National Council of Teachers of English.
- Smith, M. W., & Wilhelm, J. D. (2007). *Getting it right: Fresh approaches to teaching grammar, usage, and correctness*. New York: Scholastic.
- Smith, M. W., & Wilhelm, J. D. (2009). Boys and literacy: Complexity and multiplicity. In L. Christenbury, R. Bomer, & P. Smagorinsky (Eds.), *Handbook of adolescent literacy* (pp. 360–371). New York: Guilford.
- Smitherman, G. (2000). *Talkin that talk: Language, culture, and education in African America*. New York: Routledge.
- Spears, A. K. (1998). African-American language use: Ideology and so-called obscenity. In S. S. Mufwene, J. R. Rickford, G. Bailey, & J. Baugh (Eds.), *African American English: Structure, history, and usage* (pp. 226–250). New York: Routledge.
- Stanislavsky, K. (2007). *An actor's work on a role* (J. Benedetti, Trans.). New York: Routledge.
- Stotsky, S. (1999). *Losing our language: How multicultural classroom instruction is undermining our children's ability to read, write, and reason*. New York: Free Press.
- Stratman, J. (1990). The emergence of legal composition as a field of inquiry: Evaluating the prospects. *Review of Educational Research, 60*, 153–235.
- Stratman, J. F., & Hamp-Lyons, L. (1994). Reactivity in concurrent think aloud protocols: Issues for research. In P. Smagorinsky (Ed.), *Speaking about writing: Reflections on research methodology* (pp. 89–112). Thousand Oaks, CA: Sage.
- Strauss, V. (2011). *School district field-tests 52 (yes, 52) new tests on kids*. Retrieved April 23, 2011, from http://www.washingtonpost.com/blogs/answer-sheet/post/school-district-field-tests-52-yes-52-new-tests-on-kids/2011/04/20/AFFbGXFE_blog.html#pagebreak
- Street, B. V. (1984). *Literacy in theory and practice*. New York: Cambridge University Press.
- Suhor, C. (1984). Towards a semiotics-based curriculum. *Journal of Curriculum Studies, 16*, 247–257.
- Swanson-Owens, D., & Newell, G. E. (1994). Using intervention protocols to study the effects of instructional scaffolding on writing and learning. In P. Smagorinsky (Ed.), *Speaking about writing: Reflections on research methodology* (pp. 141–162). Thousand Oaks, CA: Sage.
- Taxel, J. (1981). The outsiders of the American revolution: The selective tradition in children's fiction. *Interchange, 12*, 206–228.
- Taylor, C. (1985a). *Human agency and language: Philosophical papers I*. New York: Cambridge University Press.
- Taylor, C. (1985b). *Philosophy and the human sciences: Philosophical papers II*. New York: Cambridge University Press.
- Tobin, J. L., & Dobard, R. G. (1999). *Hidden in plain view: A secret story of quilts and the Underground Railroad*. New York: Doubleday.
- Tobin, K., & Kincheloe, J. (Eds.). (2006). *Doing educational research: A handbook*. Rotterdam: Sense Publishers.

REFERENCES

- Topping, D. H., & Hoffman, S. J. (2006). *Getting grammar: 150 new ways to teach an old subject*. Portsmouth, NH: Heinemann.
- Toulmin, S. (1969). *The uses of argument*. New York: Cambridge University Press.
- Tremmel, R. (2001). Seeking a balanced discipline: Writing teacher education in first-year composition and English education. *English Education, 34*, 6–30.
- Troia, G. A., Shankland, R. K., & Heintz, A. (Eds.) (2010). *Putting writing research into practice: Applications for teacher professional development*. New York: Guilford.
- Tulviste, P. (1991). *The cultural-historical development of verbal thinking*. Commack, NY: Nova Science.
- Tyler, R. (1949). *Basic principles of curriculum and instruction*. Chicago: University of Chicago Press.
- Tyson, L. (1999). *Critical theory today: A user-friendly guide*. New York: Garland Press.
- Valenzuela, A. (1999). *Subtractive schooling: U.S.-Mexican youth and the politics of caring*. Albany, NY: SUNY Press.
- Valsiner, J. (1998). *The guided mind: A sociogenetic approach to personality*. Cambridge, MA: Harvard University Press.
- Van der Veer, R. (1987). Review of Thought and Language by Lev S. Vygotsky (newly revised, translated, and edited by Alex Kozulin). Cambridge, MA: The M.I.T. Press, 1986. *The Journal of Mind and Behavior, 8*(1), 175–177.
- Van der Veer, R. (1992). Review of L. S. Vygotsky, *Pensiero a linguaggio*, annotated translation by Luciano Mecacci. *Journal of the History of the Behavioral Sciences, 28*, 83–84.
- Van der Veer, R. (1997). Translator's foreword and acknowledgements. In L. S. Vygotsky (Ed.), *Collected works* (Vol. 3: Problems of the theory and history of psychology, pp. v–vi, R. W. Rieber & J. Wollock, Eds., R. van der Veer, Trans.). New York: Plenum.
- Van der Veer, R., & Valsiner, J. (1991). *Understanding Vygotsky. A quest for synthesis*. Oxford: Basil Blackwell.
- Vygotsky, L. S. (1934). *Myshlenie i rech': Psikhologicheskie issledovaniya [Thinking and Speech: Psychological investigations]*. Moscow & Leningrad: Gosudarstvennoe Sotsial'no-Ekonomicheskio Izdatel'stvo.
- Vygotsky, L. S. (1934/1987). Thinking and speech. In L. S. Vygotsky (Ed.), *Collected works* (Vol. 1, pp. 39–285, R. Rieber & A. Carton, Eds., N. Minick, Trans.). New York: Plenum.
- Vygotsky, L. S. (1962). *Thought and language*. Cambridge, MA: MIT Press.
- Vygotsky, L. S. (1971/1925). *The psychology of art* (Scripta Technica, Inc., Trans.). Cambridge, MA: M.I.T. Press. Partially available at <http://www.marxists.org/archive/vygotsky/works/1925/index.htm>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds.). Cambridge, MA: Harvard University Press.
- Vygotsky, L. S. (1986). *Thought and language* (A. Kozulin, Ed. & Trans.). Cambridge, MA: MIT Press.
- Vygotsky, L. S. (1987). Thinking and speech. In L. S. Vygotsky (Ed.), *Collected works* (Vol. 1, pp. 39–285, R. Rieber & A. Carton, Eds., N. Minick, Trans.). New York: Plenum.
- Vygotsky, L. S. (1993). *The collected works of L. S. Vygotsky. Volume 2: The fundamentals of defectology (abnormal psychology and learning disabilities)* (R. W. Rieber & A. S. Carton, Eds., J. E. Knox & C. B. Stevens, Trans.). New York: Plenum.
- Vygotsky, L. S. (1994). The problem of the environment. In R. Van der Veer & J. Valsiner (Eds.), *The Vygotsky reader* (pp. 338–354, T. Prout, Trans.). Cambridge, MA: Blackwell. (Original work published in *Osnovy Pedologii*, pp. 58–78, Leningrad: Izdanie Instituta, 1935). Retrieved January 26, 2010, from <http://www.marxists.org/archive/vygotsky/works/reader/>
- Vygotsky, L. S. (1997a). *Educational psychology* (R. Silverman, Trans.). Boca Raton, FL: St. Lucie Press.

REFERENCES

- Vygotsky, L. S. (1997b). Prehistory of the development of written language. In L. S. *The collected works of L. S. Vygotsky (Vol. 4: The history of the development of higher mental functions)* (R. Rieber, Ed., M. J. Hall, Trans., pp. 131–148). New York: Plenum.
- Vygotsky, L. S. (1998a). The problem of age. In R. Rieber (Ed.), *The collected works of L. S. Vygotsky. Volume 5: Child psychology* (M. J. Hall, Trans., pp. 187–206). New York: Plenum.
- Vygotsky, L. S. (1998b). *The collected works of L. S. Vygotsky. Volume 5: Child psychology* (R. Rieber, Ed., M. J. Hall, Trans., pp. 187–206). New York: Plenum.
- Vygotsky, L. S. (1999). The teaching about emotions. Historical-psychological studies. In *The collected works of L. S. Vygotsky (Vol. 6: Scientific Legacy)* (R. Rieber, Ed., M. J. Hall, Trans., pp. 71–235). New York: Plenum.
- Vygotsky, L. S., & Luria, A. R. (1993). *Studies on the history of behavior: Ape, primitive, and child* (V. I. Golod & J. E. Knox, Eds. & Trans.). Hillsdale, NJ: Erlbaum.
- Walkerline, V. (1986). *Surveillance, subjectivity and struggle: Lessons from pedagogic and domestic practice*. Minneapolis, MN: University of Minnesota Press.
- Watson, J. B. (1920). Is thinking merely the action of language mechanisms? *British Journal of Psychology*, *11*, 87–104.
- Weaver, C. (1996). *Teaching grammar in context*. Portsmouth, NH: Heinemann.
- Weaver, C., & Bush, J. (2008). *Grammar to enrich and enhance writing*. Portsmouth, NH: Heinemann.
- Wells, G. (1986). *The meaning makers: Children learning language and using language to learn*. Portsmouth, NH: Heinemann.
- Wells, G. (1999). *Dialogic inquiry: Towards a sociocultural practice and theory of education*. New York: Cambridge University Press.
- Wells, G., & Chang-Wells, G. L. (1992). *Constructing knowledge together: Classrooms as centers of inquiry and literacy*. Portsmouth, NH: Heinemann.
- Wertsch, J. V. (1981). *The concept of activity in Soviet psychology* (J. V. Wertsch, Ed. & Trans.). Armonk, NY: Sharpe.
- Wertsch, J. V. (1985). *Vygotsky and the social formation of mind*. Cambridge, MA: Harvard University Press.
- Wertsch, J. V. (1991). *Voices of the mind: A sociocultural approach to mediated action*. Cambridge, MA: Harvard University Press.
- Wertsch, J. V. (1994). The primacy of mediated action in sociocultural studies. *Mind, Culture, and Activity*, *1*(4), 202–208.
- Wertsch, J. V. (1998). *Mind as action*. New York: Oxford University Press.
- Wertsch, J. V. (1999). Revising Russian history. *Written Communication*, *16*, 267–295.
- Wertsch, J. V. (2000). Vygotsky's two minds on the nature of meaning. In C. D. Lee & P. Smagorinsky (Eds.), *Vygotskian perspectives on literacy research: Constructing meaning through collaborative inquiry* (pp. 19–30). New York: Cambridge University Press.
- Wertsch, J. V. (2007). Mediation. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The Cambridge companion to Vygotsky* (pp. 178–192). New York: Cambridge University Press.
- Wesley, K. (2000). The ill effects of the five paragraph theme. *English Journal*, *90*(1), 57–60.
- Whitin, P. (1996). *Stretching stories, stretching minds: Responding visually to literature*. Portsmouth, NH: Heinemann.
- Wideen, M., Mayer-Smith, J., & Moon, B. (1998). A critical analysis of the research on learning to teach: Making the case for an ecological perspective on inquiry. *Review of Educational Research*, *68*, 130–178.
- Wiggins, G. P. (1993). *Assessing student performance*. San Francisco: Jossey-Bass Publishers.
- Wilhelm, J. D., Baker, T., & Dube, J. (2001). *Strategic reading: Guiding students to lifelong literacy*. Portsmouth, NH: Heinemann. Partly available at <http://www.myread.org/scaffolding.htm>
- Williams, R. (1977). *Marxism and literature*. New York: Oxford University Press.

REFERENCES

- Wimsatt, W. K., & Beardsley, M. C. (1946). The intentional fallacy. *Sewanee Review*, 54, 468–488.
- Witte, S. (1992). Context, text, intertext: Toward a constructivist semiotic of writing. *Written Communication*, 9, 237–308.
- Wong, E. D. (1995). Challenges confronting the researcher/teacher: Conflicts of purpose and conduct. *Educational Researcher*, 24(3), 22–28.
- Wood, D. J., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychiatry and Psychology*, 17(2), 89–100.
- Woods, C. (Ed.). (2010a). *Visible language: Inventions of writing in the ancient Middle East and beyond*. Chicago: The Oriental Institute of the University of Chicago. Retrieved February 11, 2011, from <http://oi.uchicago.edu/pdf/oimp32.pdf>
- Woods, C. (2010b). Introduction: Visible language: The earliest writing systems. In C. Wood (Ed.), *Visible language: Inventions of writing in the ancient Middle East and beyond* (pp. 15–27). Chicago: The Oriental Institute of the University of Chicago. Retrieved February 11, 2011, from <http://oi.uchicago.edu/pdf/oimp32.pdf>
- Wu, S.-Y., & Rubin, D. L. (2000). Evaluating the impact of collectivism and individualism on argumentative writing by Chinese and North American college students. *Research in the Teaching of English*, 35, 148–178.
- XMCA Discussion Listserv. (2000, April). *Sense and meaning thread*. Available at http://www.communication.ucsd.edu/MCA/Mail/xmcamail.2000_04.dir/index.html
- Yaroshevsky, M. (1989). *Lev Vygotsky* (S. Syrovatin, Trans.). Moscow: Progress Publishers.
- Young, V. A., & Tsemo, B. H. (Eds.). (2011). *From bourgeois to boogie: Black middle-class performances*. Detroit, MI: Wayne State University Press.
- Zedong, M. (1966). *Quotations from Chairman Mao Zedong*. Retrieved February 7, 2011, from <http://art-bin.com/art/omaotoc.html>
- Zeichner, K. M., & Tabachnik, B. R. (1981). Are the effects of teacher education “washed out” by school experience? *Journal of Teacher Education*, 32(3), 7–11.
- Zinchenko, V. (1995). Cultural-historical psychology and the psychological theory of activity: Retrospect and prospect. In J. V. Wertsch, P. del Río, & A. Alvarez (Eds.), *Sociocultural studies of mind* (pp. 37–55). New York: Cambridge University Press.
- Zinchenko, V. (2007). Thought and word: The approaches of L. S. Vygotsky and G. G. Shpet. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The Cambridge companion to Vygotsky* (pp. 212–245). New York: Cambridge University Press.
- Zoss, M. (2007). *Integrating visual and language arts: A case study of a teacher composing a curriculum*. Unpublished doctoral dissertation, The University of Georgia.
- Zoss, M., & Jones, S. (2008). Enhancing literary reading through visual and language arts practice. In A. Soter, M. Faust, & T. Rogers (Eds.), *Interpretive play: Extending literate thinking using literary theories and young adult literature* (pp. 191–210). Norwood, MA: Christopher Gordon.
- Zoss, M., Smagorinsky, P., & O'Donnell-Allen, C. (2007). Mask-making as representational process: The situated composition of an identity project in a senior English class. *International Journal of Education & the Arts*, 8(10). Retrieved from <http://www.ijea.org/v8n10/v8n10.pdf>
- Zoss, M., & White, A. M. (2011). Finding ‘my kind of teaching’: How a drama project became a teacher’s expressive teaching moment. *English in Education*, 45, 161-175.

GLOSSARY

When I was writing this book during the spring semester of 2011, and concurrently teaching a doctoral seminary on Vygotsky (see the Acknowledgements for class members), I would send chapters to the class as I completed them. As part of their feedback, they suggested that I include a glossary of key terms that they could consult for easy reference, rather than flipping back to previous sections in order to refresh and reinforce their grasp of terminology and related concepts. Most of the terms that follow came from their suggestions for what to include in the glossary. I should note that many of these terms are open to debate, and that I do not present these definitions as authoritative or definitive. Rather, I define them as I understand them and use them in this book.

Acculturation refers to the process through which one appropriates facets of culture, and the subsequent fact of this appropriation. Often one's acculturation to a particular set of practices normalizes them so that any other way of doing something seems odd, wrong, or deficient. Action according to one's acculturation may work well in one setting yet be disastrous in another. One may be acculturated, for example, to drive on the left side of the road in the U.S., a practice that would produce chaos in the U.K. As this example shows, one's manner and type of acculturation have serious consequences with how one engages with the world, and suggests the complexity of cross-cultural communication and other forms of engagement with those who have learned to view and act in the world according to particular cultural values and practices, particularly those different from one's own.

Affect refers to the emotional dimension of human development and how it contributes to cognition, personality, and other aspects of human growth. Affect is viewed as synergetic with other aspects of *mind* rather than as a discrete part of a person's makeup and behavior. One's traumatic experiences, for example, typically frame how one thinks and how one's body responds to new situations that are similar in some way to those that produced the original trauma.

Affordances refer to those aspects of a setting or of a person's appropriate of ways of thinking within settings that channel action in particular ways, thus supporting particular patterns of performance. Genre knowledge, for instance, may afford the production of texts that meet the expectations of those within a chosen discourse community with whom the author hopes to communicate, such that readers are in tune with its textual codes. A person who writes a report of a laboratory experiment should know that fabricating the results is inappropriate in this context, even though knowledge of creative writing techniques would serve as an affordance among writers of fiction.

GLOSSARY

Apprenticeship of observation refers to the experience of attending school (or presumably the experience of participating in any other social practice) and what people learn about the conduct of education from having been a student. Often one's apprenticeship of observation produces a schematic expectation for how schooling should be carried out, thus serving to reproduce educational patterns across generations. For example, people whose classroom experiences position teachers in authoritative roles may become acculturated learn to believe that all teaching should be authoritarian in nature, and in spite of alternatives that they come across, revert to this approach when they become teachers themselves.

Appropriation accounts for the process through which a person adopts and modifies an idea, cultural tool, worldview, or other historical, cultural, or social means of engaging with people and their social environments. This term, as opposed to other terms that have been used to account for an individual's adaptation of cultural signs and tools (e.g., **assimilation**, **internalization**, **interiorization**), avoids dualism between mind and matter. Instead, it assumes that the mind is socially distributed by means of mediational tools, and not encased within the skull. That is, because thinking is mediated by cultural tools that achieve value through historical, cultural, and social practice, thinking is a joint activity, rather than a solitary, isolated act. Appropriation accounts for how people incorporate and reconstruct

aspects of a setting into their thinking, without suggesting a wall of separation between person and context. This term negates the implications of internalization and interiorization, which suggest a more direct out-to-in process that is out of step with the view that mind and matter are interrelated.

Concepts are units of thought that ascribe meaning to the world by providing generalizations that impose a discursive order on the world. A true concept is internally consistent such that all elements grouped within it follow the same principles. People develop concepts in what Vygotsky calls a *twisting path* that does not proceed in a neat, linear fashion. Rather, one's route toward the development of a concept becomes detoured, rerouted, and otherwise thrown off course as new examples are considered for inclusion within the concept, and as one generates sufficiently extensive related knowledge to make consistent judgments. For example, when I first moved to Georgia, I believed that my yard was inhabited by Baltimore Oriole birds—a bird I had come to know growing up in Virginia—because I saw a slender, orange-breasted bird on the grounds. As I learned more about Baltimore Orioles, I began to doubt whether these birds fit this category, because the birds I observed were ground-and-shrub oriented while Baltimore Orioles feed and nest higher off the ground. I determined eventually that the birds in my yard were Eastern (or rufous-sided) towhees, based on my reading about their appearance and feeding and nesting habits. According to Vygotsky, my original grouping represented a **pseudconcept** because I had considered all slender,

orange-breasted birds to be Baltimore Orioles. Had my grouping been even less consistent, I would have formed a **complex**, which might have been the case had I included robins in this group because they have reddish breasts, yet are more plump than slender and their breasts are more red than orange, even though like towhees, they are ground-level feeders. My development of a concept of Eastern towhees, then, required a process of differentiation that eliminated birds from inclusion in this generalization as I learned of their discrepant traits and developed a more unified process of identifying the birds and making sense of their role in my yard ecology. The development of a consistently unified conception enabled me better to anticipate future events, which I understand to be a crucial aspect of developing a strong concept. For example, looking for the birds at the ground-level, rather than in mid-air, better enabled me to observe towhees and understand their habits. I also anticipated that I could promote towhee habitat by planting heavy shrubs in which they could seek shelter. Planting heavy shrubs in contrast would not have supported Baltimore orioles, thus leading my anticipation of a future outcome to be thwarted had housing Baltimore orioles been my goal.

Constraint refers to those aspects of a social setting that limit what is available to accomplish. Constraints are often enabling as well as limiting by allowing people to focus on achieving particular goals without undue distraction. For example, in writing this book, I have chosen to position it as a social science argument. The decision to work within this genre limits my options by suggesting that I should not fabricate examples, as I might if I were writing a satire. The constraint is positive if limiting my choices enables me to focus on making claims that I can support with data-grounded examples that I in turn render into evidence by means of argumentative *warrants*, i.e., statements that explain how the data illustrate the claim and thus serve an evidentiary role. The constraint might have negative consequences, at least initially, if by working within the argumentative tradition of social science research, I felt that I had lost my authentic writing voice, a problem for many novices who are beginning to learn formal academic genres.

Culture refers to human interactions that are grounded in recurring patterns among people over time. Cultures may be large, as in whole nations or religious groups; or small, as in the **idiocultures** that may develop within particular small groups in classrooms. What matters is that cultures engage people in recurring social practices that move them toward a reasonably shared understanding of both immediate situations and the goals toward which they collectively work.

Context refers to the setting of human development. The term's origins in the notion of *weaving* suggests an interplay between the context and whatever is part of it. Context and individuals within it are thus not separated, but rather are interrelated by means of mediated action. For example, an office worker is part of a broader context that suggests appropriate ways of dressing, speaking, acting,

GLOSSARY

producing, conforming, responding, and otherwise fitting in culturally. From a literacy standpoint, the context channels how texts such as business memos are written and consumed. Those who write these memos either serve to reinforce these values by participating in these practices faithfully, or could conceivably alter them by accompanying particular sorts of texts with novel accoutrements, such as the inclusion of flowers, that might in turn contribute to the shape and overall practices of the setting.

Cultural schema refers to the ways in which a conception is shaped by culture. The term **schema**, or **schemata** in the plural form, originated in the information processing paradigm to describe “cognitive maps” that help to structure perceptions into knowledge networks. A schema enables one to recognize a new situation and know immediately how to act within it. If I enter a new restaurant, for instance, I look for features that suggest to me that I should either wait to be seated by a host or hostess or find my own table. I can also anticipate the unfolding of events to include being greeted at the table by a waiter or waitress who provides a menu and asks if I want a drink or appetizer, who returns to take my order, who brings items in a particular order (appetizer, soup or salad, main course, dessert or coffee), and who eventually presents me with a check that I pay for at the table or at the cash register. The idea that schemata are **cultural** emerges from the fact that the knowledge network has been appropriated through prior cultural practice, and might require modification depending on cultural factors of new settings. If, for instance, I have never eaten in an Ethiopian restaurant, I would need to adjust my schematic understanding of serving practices to account for the fact that there is no silverware provided and that I must eat my food with my fingers.

Decontextualization of meditational means is the phrase that Wertsch (1985) uses to describe the process of abstraction from the immediate context of learning to an “ideal” version of a concept that can then be reapplied to new situation. The term “decontextualization” has since been questioned because it suggests that a state of no-context is possible; its critics have argued that even the state of abstraction exists in some sort of context.

Dialogism refers to the way in which all human communication is part of an ongoing dialogue. This dialogue is historically deep, with each human utterance of any length serving as a conversational turn that responds to a prior expression and anticipates further response. These utterances might be as short as a single word or a whole novel. The dialogicality need not be explicit, but may involve **hidden dialogism**, i.e., addressed to people who are not merely not present, but possibly not known to the speaker. For example, M. M. Bakhtin died in 1975, shortly after my college graduation, and I never heard of him during his lifetime. Yet by invoking his concept of dialogism, I am extending the conversation through which he introduced the term. Further, people who have heard of dialogism but not Bakhtin are

similarly taking part in his conversation; and people who have never heard of either dialogism or Bakhtin are engaging with dialogic exchanges with every speech act. As a result of the inherently dialogical role of speech or other communication, all communicative action involves **addressivity**, i.e., it is addressed to someone, whether that person is present or not, or whether people are aware that they are being addressed.

Evocation refers to the images that one associates with textual signs. As proposed by Rosenblatt (1978), readers of literature respond to these images, rather than to the text itself. The notion of the evocation suggests that readers who cannot generate images in relation to textual signs will have difficulty formulating any sort of meaning for their reading, and that engaging learners with opportunities to construct images in relation to their reading will contribute to the meaning that they construct from reading texts. For example, in one study I report in Chapter 6, two students interpreted a violent throat culture extraction by a doctor from a diphtheria patient by choreographing a dance in which the doctor and patient ended in a gentle embrace to depict what the students understood to be the emotional, rather than literal, message of the story. Their evocations, rather than the literal action of the text, provided the students with the basis for their meaningful engagement with the story.

Funds of knowledge refer to shared knowledge and resources that enable marginalized groups to act collectively and thus more effectively in relation to the broader society. This collective action often involves the sharing of knowledge or resources to produce a greater impact than any individual could achieve alone. For instance, those who share funds of knowledge might share information about job openings, the availability of goods, and other advantages so that the collective is strengthened by the gains of individuals within it.

Higher mental functions refer to culturally-specific ways of thinking that are appropriated from cultural practice. Higher mental functions are distinct from lower, or biological functions that rely solely on bodily maturation. Higher mental functions may be developed through engagement with a culture of any size. In small groups, such as a particular basketball program, participants may appropriate a particular conception of how to play the game, including whether action should be initiated by dribbling the ball or by moving without the ball and passing it rather than dribbling it. National cultures may emphasize the precepts of broad dispositions such as capitalistic or socialistic views of the economy. Religious cultures may promote particular understandings of history, science, and social relationships. All higher mental functions are directed toward some sort of teleological end, i.e., a sense of optimal future or outcome, that is best realized through a related set of higher mental functions that are promoted through cultural tools that act as mediational means toward what is believed to be a presumably desired endpoint.

GLOSSARY

Historical refers to the precedents through which cultural and social values have been developed over time, particularly those involved in the establishment of guiding conventions. The historical conduct of schools, for instance, emphasizes that authority is located in teachers and texts, that students play a receptive role in the flow of knowledge, that middle class values concerning appropriate social behavior predominate, and so on. These historical precedents in turn set the stage for emerging action that tends to rely on and perpetuate historical processes. Historical precedents enable continuity in cultural practice, for better or worse, depending on one's perspective.

Intercontext is a term that accounts for the ways in which social practices in similar types of settings tend to get reproduced over time. The intercontext of a social setting sets the stage for rituals regarding turn-taking, social roles, the location of authority, and other factors that contribute to the practices that constitute the action of settings of particular types. For example, the intercontext of art classes in school tends to rely on informality, creativity, conversational relationships between students and teachers and among students, opportunities for provisional composing that may be discarded, and other aspects of an exploratory approach to production. These values may not obtain in other types of classes where the intercontext suggests that a more formal, restrained, and conformity-oriented set of practices may be extant and primed for reproduction.

Interevocation refers to the ways in which readers of texts generate images that form the basis for their response, and the ways in which each image is potentially evocative of additional chains of images that contribute to the construction of meaning in relation to a text. The phenomena of **intertext** and **intercontext** respectively refer to the juxtapositions of texts and contexts, both of which may be subjected to readerly constructions yet which are largely not of the reader's making, although they are amenable to the reader's construction. Interevocations in contrast rely on a reader's generation of images from prior experiences and the reader's reconstructions of these imagaic texts in relation to the evocations generated in response to texts.

Intersubjectivity refers to the degree to which different people share a construction of the setting and understanding of the basis for how the setting is interpreted by others. The notion of intersubjectivity is particularly important in understanding cross-cultural communication in which different interpretations of the same material and ideas are at work. For example, teachers who view the classroom as an authoritarian site, and students for whom active, vocal participation is a norm for formal settings, often construct student behavior differently. To students who believe that they are expected to participate, spontaneous expression may be considered appropriate, yet to an authoritarian teacher such contributions may be viewed as disruptive. Educators disagree on the degree to which it is a solely the

student's obligation to understand the teacher's construction, and thus achieve intersubjectivity, or whether teachers have a reciprocal obligation to understand and adjust to how students construct classroom norms and help to produce intersubjectivity on their end of the relationship.

Intertext refers to the manner in which texts share characteristics that enable people to understand them through a recognition of their family of formal traits and social purposes. Intertextuality is sometimes described as the juxtaposition of texts, although this account lacks the richness of what is available by considering each text as part of a textual chain that enables a recognition of codes and scripts, which in turn contributes to an approach to reading and writing strategically and knowledgeably within the expectations of the genre that the intertextuality provides.

Mediation refers to the manner in which thinking relies on a medium in order to be carried out. That is, thoughts do not think themselves or exist in a vacuum. Rather, thinking requires a tool such as speech or other **mediational means** in order to take shape and thus produce cogitation. The means of thinking are appropriated through cultural practice. For instance, children growing up in a particular community of faith may appropriate a way of viewing the world, and means for thinking about life, through participation in the speech of those who surround them. Speech thus mediates the appropriation of a cultural worldview endemic to the faith community as one grasps its concepts. Speech (potentially along with other cultural tools) in turn mediates one's private thinking and the thinking expressed publicly. Without a mediational tool such as speech, thinking would have no means of being carried out. Mediation is thus a central dimension of cognition in relation to social practices.

Meta-experience refers to the manner in which people experience their experiences. The same experience, e.g., encountering a barking dog, may be experienced differently by two children in different ways. One might experience the experience as traumatic and in turn develop a lifelong fear of all dogs. Another might be entertained by the dog's barking and thereafter have a high comfort level with dogs in general. Meta-experience in this conception may correspond to *perezhivanie*, a Russian term that some tie only to trauma yet in this conception refers to the manner in which experience is experienced and applied to the frameworks that form the basis for the emotional construction of and action in new settings.

Mind refers to the sum of actions that produce thought. Many psychologies posit that mind is locked within the skull, but a Vygotskian perspective views mind as distributed socially by means of mediational tools. It is further fundamentally integrated with emotions and the neurological system, breaking down the separation of cognition and affect and viewing them as central, related processes of thinking. My writing of this passage, for instance, is not solely the working of my brain. It

GLOSSARY

involves my use of a computer as a tool not only for producing letters and words but for organizing my production of them through the computer's arrangement and my mastery of key locations, its various functions including spelling and grammatical monitors, and other features. My use of speech is not original, but dialogically derived from the social language of social science research writing, indicating the historically and culturally distributed nature of my choices of words and phrasings. My neurologically-induced headache occasionally fractures the continuity of my thinking so that I have to write with greater care and the expectation of revising. My feelings of sympathy for cultural groups who, like my Jewish and Irish Catholic ancestors, experience deadly forms of social ostracism and marginalization informs my expression of the potential for a Vygotskian perspective to produce a more equitable world. Mind is thus not simply a cranial vehicle for cogitation comparable to a computer, but a distributed entity oriented to meaningful, mediated engagement with the world.

Motive refers to the sense of purpose that implies a code of suitable conduct in a setting. The motive of a setting thus refers to the overall purpose of action within it, even if that motive might be disputed by some within the setting. A setting's motive may be disputed or simply elided by those whose **goals**—those more local forward-directed plans of individuals or subsets of people—suggest a different course of action and social future. For example, the overall motive of a school might involve the attainment of status through students' achievement of high scores on standardized tests, an outcome that suggests particular means of instruction geared toward test preparation. Individuals within the setting might have contrary goals, such as the encouragement of open-ended thinking, speaking, and writing that comprise a process of developing tools to promote a reflective disposition. Yet the overall center of a setting's gravity moves it toward the overall motive, whether it is explicitly stated or implicit in how action is mediated. It is important to understand that throughout a Vygotskian perspective, the channeling of action toward a motive, or teleological end, is not fatalistic, but rather sets the stage for probabilities to unfold.

Multiliteracies and **New Literacy Studies** emphasize digital forms of literacy that both include and go beyond the print medium. This work has a political edge in that it views literacy as an instrument for advancement in a rapidly changing, technology-driven economy. In this environment, cross-national communication becomes increasingly important, and the digital modes through which communication is achieved become a center of attention. The multiliteracies and New Literacies Studies movements are grounded in a semiotic perspective on text construction and consumption that emphasizes how all arrangements of signs constitute texts, regardless of mode.

Multimodality emerges from social semiotics and emphasizes the manner in which different textual modes provide particular sign configurations whose conventions must be read according to unique strategies. Multimodality is concerned with the ways in which particular modes—a classical Greek sculpture, a postmodern architectural construction, a Victorian poem, and any other—cue particular ways of attending and reading. It further emphasizes how different social settings refine which codes are salient and how to read them. The reader’s task is to grasp the text producer’s use of codes to convey an intended meaning and arrive at a reading that conforms to what its author has inscribed in it. Applying inappropriate rules of codification, in this conception, can lead to misreadings and misunderstandings and can work against one’s fruitful participation in cultural practices.

Ontogenesis refers to the process of an individual organism’s growth from infancy through its various stages of maturity. It includes both biological aspects of growth, such as increasing size, coordination, and the capacity for abstraction; and culturally-mediated growth toward higher mental functions.

Phylogenesis refers to the evolutionary development of a whole species. Humanity’s phylogenesis, for instance, is believed to have emerged from primates and employed tools such as speech to mediate their development toward a being that engages in organized social practices that serve to enable survival in relation to new social and natural developments.

Prolepsis refers to forms of mediation that are implicit or difficult to trace. These mediational means help to shape the social trajectories of individuals and groups toward desired outcomes, without having the explicit appearance of formal rules or other traceable means. For example, teachers often create proleptic means of mediation for their colleagues by suggesting the appropriateness and inappropriateness of particular forms of instruction. Activity-oriented teaching might be termed “just playing games” in staffroom exchanges such that substituting activities for lectures would be discouraged, not by the imposition of formal rules but by the assertion of values.

Semiotics refers to the function of **signs**, i.e., human constructions that represent something, in human communication. In Vygotsky’s formulation, words and their meanings were the focus of a semiotic analysis. Word meaning across the lifespan indicates one’s concept development and, because one’s concepts tend to reflect broader cultural conceptions, implies the concepts that provide the motive for the mediating environment. Revised accounts of Vygotsky include other sign systems in a semiotic conception so that any human construction that arranges signs into coherent patterns may be considered to be an artifact of mediated action and potentially a tool for the generation of ideas. The value on the suppression of the individual was evident in Soviet architecture and landscaping, for instance, with most

GLOSSARY

buildings and their grounds being designed and constructed in entirely utilitarian, unornamented structures that visitors from nations with different values often find ugly, because the buildings and grounds appear to express so little about a dynamic human spirit.

Settings refer to the manner in which individuals construct what surrounds them. A setting is distinct from an **arena**, about which there is less disagreement. Most people, for instance, would agree that a building in which teachers instruct students is a “school,” making school the arena for teaching and learning. How that arena is constructed—as a home base, as a prison, as a war zone, as a place of stimulation, and so on—determines how it acts as a setting for anyone who engages with it. Any setting may have subsettings, or **idiosettings**, whose construction has unique characteristics relative to the broader setting. Within the setting of school, for instance, a department, particular classroom, pocket of student-centered teachers, or other constructed environment may serve as an idiosetting.

Social refers to immediate human interactions and how they mediated thinking. Social influences, while grounded in history and culture, are more local and personal and constitute the relational setting in which human development occurs. The social environment of a newsroom at a newspaper, for instance, would involve whatever idiosyncratic social patterns emerge from the interactions of the individuals who are present. These social patterns do have a historical dimension in that the setting is designed to promote the reporting of news, which provides a motive that makes mud wrestling inappropriate during working hours. They also have a cultural dimension in that there are established ways in which news reports are constructed that provide the template for the production of new news stories. The social environment provides whatever permutations any local setting provides on the cultural and historical purpose of gathering in news rooms and publishing news reports.

Spontaneous concepts refers to the sorts of concepts developed in everyday life, without the benefit of formal instruction through which principles may be abstracted for application to related types of action. Spontaneous concepts are thus grounded in local, situated practice, rather than being accompanied by the development of rules, as typically happens in academic settings where **scientific** or **academic concepts** tend to be learned. Spontaneous concepts have less potential for application to new settings because the knowledge is grounded in the conditions of initial learning. If, for example, I were to live in a desert-like arid environment, I might learn from local practice that native plants have long tap roots, leaves that collect water, and other means of self-sustenance that negate the need for watering. If I were always to live in such environments, my local knowledge, or spontaneous concepts, would be sufficient. Yet if I were to move to a new region where plants had not evolved to become acclimated to droughts, and apply the principle of not watering, my plants might die.

Spontaneous concepts are thus more limiting than scientific concepts because they do not provide principles for reapplication in new settings.

Telos refers to the sense of optimal outcome that a culture provides for its participants, without doing so deterministically. It suggests not only a direction, but a means for getting there through the mediational means it provides. Of course, the culture itself is not an organism but a collection of like-minded people, and the people are the ones who establish and reproduce across generations a sense of where a culture is headed and how to get there. Cultures that come in conflict often do so through conflicting teleological understandings. The U.S.-Soviet Union “Cold War” of the second half of the 20th century, for instance, centered on different teleological understandings, with the U.S. pursuing the ends of a capitalist culture and the Soviets implementing, at least initially, Marx’s outline of a communist culture. Each relied on a different sense of telos and means for promoting social action toward that end. Twenty-first century religious conflicts, as well as religion-based wars throughout history, serve as additional illustrations of how telos, while serving as an organizing feature of a culture, may bring it into conflict with others.

Tools refer to the means by which people act on their environment. The hammer and sickle, for instance, were inscribed in the Soviet flag along with a star on a red field. The hammer stood for Soviet industrial workers (the proletariat) and the sickle represented farmers (the peasants). The red star represented the Communist Party, and the red background represented beauty. The flag itself thus served as a **sign**, and the hammer and sickle indicated the material **tools** upon which the Soviet society was built. The notion of tool was adapted from this notion of labor to describe any means by which the mediation of thinking and acting on the environment may take place. While a hammer may enable pounding of material to change its form or drive it forward, a **psychological tool** such as speech could also affect the social environment (which could in turn affect the physical environment) by producing ideas that have an impact on other people and both natural and humanly constructed environments. Speech in turn may be refined into particular ways of using speech to affect others. Arguments are made in order to persuade, stories may be told in order to enlighten or produce other effects, and so on. The fundamental role of a tool, whether material or psychological, is to produce an effect on the environment.

Transmediation refers to the manner in which ideas may be considered across sign systems, and so is fundamentally a semiotic concept. If I were to put this book to music and choreograph my ideas, for example, I would be engaging in an act of transmediation through at least two additional sign systems. The world of the arts provides many examples of transmediation, such as Renaissance paintings of Biblical scenes, or the realization of postmodernism in architecture, literature, music, and other forms.

GLOSSARY

Unit of analysis refers to the smallest measure by which any phenomenon may be investigated while still revealing properties of the whole. Presumably, one drop from an ocean contains all of the elements of the whole ocean and thus may be considered a unit of analysis for the biologist. In social sciences, units of analysis are often less clear than they are in the natural sciences. For Vygotsky, the word provided a unit of analysis for studying concept development, which he considered to be the central act of human consciousness. Studying concept development of individuals further enabled him to make inferences about the cultural practices through which individuals develop their concepts. Leont'ev revised Vygotsky's use of the **sign** of words and their meanings to **activity**. This shift to goal-directed, tool-mediated action is now accepted by many who work in Vygotsky's tradition yet seek further implications for the foundation that he established.

Peter Smagorinsky holds the rank of Distinguished Research Professor of English Education in the Department of Language and Literacy Education in the College of Education at The University of Georgia. He taught high school English in the Chicago area from 1976-1990 while earning his M.A.T (1977) and Ph.D. (1989) from the University of Chicago. At The University of Georgia, he has been recognized as a university Graduate School Outstanding Mentor and a College of Education Distinguished Research Mentor. He was co-editor of *Research in the Teaching of English* from 1996-2003, has served as trustee and chair of the Research Foundation of the National Council of Teachers of English (NCTE), is past president of the National Conference on Research in Language and Literacy, is past co-chair of NCTE's Assembly for Research, is past chair of NCTE's Standing Committee on Research, and was the founding chair of the NCTE Research Forum. He is the winner of the 1999 Raymond B. Cattell Early Career Award for Programmatic Research presented by the American Educational Research Association to recognize the scholar who has conducted the most distinguished program of cumulative educational research in any field of educational inquiry within the first decade following receipt of his or her doctoral degree. He has won Article of the Year recognition for *English Journal* (English Journal Writing Award, 1989; Edwin M. Hopkins English Journal Award, 2000) and *English Education* (Janet Emig Award, 2003), and the Steve Cahir Award for Research in Writing, presented by the Writing SIG of the American Educational Research Association (1991). Other recent awards include The University of Georgia College of Education Russell Yeany Research Award (2008), National Research Conference Edward B. Fry Book Award (2009), and the 2008 Association of Teacher Educators Distinguished Research Award; and a total of five awards from the American Educational Research Association (for service to *Educational Researcher* and *Review of Educational Research*) and Sage Publications (for service to *Written Communication*) for outstanding contributions as a manuscript reviewer. He has had 24 books published by Cambridge University Press, Corwin, Dale Seymour, Erlbaum, Guilford, Heinemann, Merrill/Prentice-Hall, National Council of Teachers of English Publications, Routledge, Sage, and Sense; was the primary instructional writer for Perfection Learning's *Writing with Power* textbook series; and has published in a variety of journals, including *American Journal of Education*, *Communication Education*, *Educational Researcher*, *Journal of Literacy Research*, *Journal of Teacher Education*, *Mind, Culture, and Activity*, *Reading Research Quarterly*, *Research in the Teaching of English*, *Review of Educational Research*, *Teachers College Record*, *The Elementary School Journal*, *Written Communication*, and many others. His research has been funded by the U.S. Office of Educational Research and Improvement, the Spencer Foundation, and the Research Foundation of the National Council of Teachers of English.

INDEX

A

- Academic bullshitting, 159n5, 180
- Acculturation, 127, 134, 176, 287
- Activity theory, xi, xxviii, xxx, xxxvii, xxxviii, 3
- Addressivity, 235–237, 291
- Affordance, 20, 47, 57, 142, 219, 287
- Agency, 32, 47, 51, 56, 93, 130, 191, 197
- Apprenticeship of observation, 80–82, 84–92, 177, 288
- Appropriation, xxxviii, 3, 4, 7, 14, 18, 19, 22, 26–40, 42, 45–47, 49, 50, 52, 53, 55, 57, 58, 60, 61, 63–65, 67–69, 71, 73, 101, 105, 108, 115, 116, 119, 120, 124, 128, 130, 133, 138, 139, 141, 158, 164, 166, 167, 169, 174, 181, 184, 193–195, 209, 213, 215, 224, 226, 227, 232, 233, 238, 240, 242, 250, 255, 262, 287–293, 295
- Arena, 19, 25, 35, 296
- Articulation, xvi, xix, xxix, 13, 31, 137–144, 146, 149, 157, 172, 173, 180, 181, 201, 202, 230, 236, 241–243, 257
- Artifacts, 4, 13, 21, 29, 31, 38, 48, 56, 57, 60, 126, 130, 139, 146, 172, 173, 178, 219, 231, 232, 236, 241, 242, 247, 295
- Autonomous view of literacy, 101–102

B

- Best practice, 108, 112
- Bloom's taxonomy of educational objectives, 103
- Body biography, 144–146, 149, 155, 156

C

- Catharsis, 40
- CHAT. See Cultural-historical activity theory
- Character education, 24, 25, 159n5
- Collaborative coding, 252, 253
- Communicative competence, 99, 173, 174, 179, 198
- Community literacy, 113, 114
- Concepts, xvii, xxvi, xxxiii, xxxv, xxxvi, xxxvii, xxxviii, xxxix, 3, 19, 49, 75, 99, 123, 163, 191, 224, 250
- Conditional response, 133, 137
- Constraint, 20, 47, 57, 62, 87, 141, 142, 189, 211, 244, 256, 289
- Construction zone, 51, 56, 226
- Cultural schema, 37–40, 44, 131, 240, 290
- Cultural-historical activity theory (CHAT), xi, xxviii, 3
- Culture, xvii, xxii, xxxvi, xxxvii, 5, 22, 54, 75, 106, 123, 162, 192, 224, 249

D

- Defectology, 9, 18n3, 142
- Designative tradition, 13, 172, 173
- Dialogism, 22–26, 114, 178, 236, 290–291

E

- Egocentric speech, 138, 228, 235–237
- Emotion, xix, xx, 16, 30, 32, 37, 40–42, 48n6, 99, 100, 103, 126, 129, 138, 146, 149–153, 155, 181–184, 186–188, 193, 199, 200, 204–207, 212, 217, 238, 239, 251, 287, 291, 293
- Emplotment, 134, 150–153, 191

INDEX

- Enlightenment, The, 13, 64, 85, 109, 153, 172
- Evocation, 101, 131, 132, 134, 138, 141–143, 149, 150, 152, 153, 157, 159, 166, 213, 291, 292
- Exploratory speech, 32, 85, 86, 171, 181, 241
- Expressive tradition, 172, 173, 201
- Extranormative, 11, 36, 65
- F**
- Final draft speech, 32, 85
- Five-paragraph theme, xxxiv, 88, 89, 95, 176–178, 251
- Funds of knowledge, 114, 291
- G**
- Gender dysphoria, 27
- Genre theory, 178, 179
- Goal congruence, 63, 64, 69
- Goals, xi, xviii, xxxv, xxxvii, xxxviii, xxxix, 3, 4, 19, 21, 22, 26, 29, 33, 45, 47, 49, 52, 56, 57, 59–64, 68, 69, 80, 82, 85, 89, 106–108, 116, 120, 123, 126, 130, 132, 155–158, 162, 164, 170, 172, 173, 183–185, 194, 200, 203–204, 207–209, 211, 212, 218, 226, 227, 230–232, 236, 238, 240, 250, 251, 253, 257, 261, 289, 294, 298
- Grammar, xxx, xxxiii, 43, 81, 82, 162, 169, 173–176, 246
- H**
- Hawthorne effect, 49, 74
- Heterogeneity principle, 39
- Heteroglossia, 22, 25, 114
- Hidden dialogicality, 24, 132, 235–237, 290
- Higher mental functions, 11, 14, 54, 58, 178, 193, 195, 235, 291, 295
- I**
- Idioculture, 22, 126, 153, 156, 232, 289
- Idiosetting, 22, 253, 296
- Information processing (IP), xxviii, xxxiv, xxxvi, xxxvii, 38, 163, 180, 225–230, 233, 234, 239–241, 248, 290
- Inner speech, xix, 14, 137, 138, 168, 169, 173, 179, 235, 241
- Intercontext, 101, 102, 104–106, 127, 137, 153, 159, 292
- Interevocation, 101–104, 124, 127, 131, 149, 150, 152, 153, 159, 205, 214, 215, 292
- Intersubjectivity, 5, 39, 61, 73, 179, 184, 232, 233, 238, 261, 292–293
- Intertext, 25, 26, 101, 102, 104, 105, 114, 115, 127, 128, 137, 141, 143, 149–153, 159, 292, 293
- L**
- Laboratory of Comparative Human Cognition, xxxvi, 6, 162
- M**
- Meaning, xix, xxv, xxvi, 13, 21, 55, 83, 99, 123, 164, 192, 225, 251
- Mediation, xxxvii, xxxviii, 3–5, 11, 13, 14, 16–21, 23, 26, 28, 29, 31–33, 37–42, 49, 50, 54–56, 58, 59, 61, 63, 64, 66–70, 73, 94, 118, 130, 131, 138–142, 157, 158, 165, 166, 168, 172, 173, 176, 179, 180, 183, 187–189, 191–200, 202, 206, 207, 213, 214, 219, 226, 227, 231, 232, 234, 240–242, 246, 256, 261, 288, 291, 293, 295, 297
- Meta-experience, 41, 47, 132, 142, 166, 182, 184, 191, 219, 293
- Method section, 245–259
- Meuroatypical, 36, 65
- Mind, xvii, xxi, xxix, 4, 6, 7, 13–16, 19, 33, 37–42, 49, 50, 53, 54, 57–59, 68, 87, 100, 109, 115, 117, 131, 137, 138, 140, 158, 164, 166, 177, 181, 183–188, 189n4, 193, 202, 204, 227, 228, 230, 231,

- 240–243, 261, 287, 288, 293–294, 297, 299
- Mind, Culture, and Activity, xxii, xxxvi, 6
- Motive of the setting, 21, 22, 26, 294
- Multiliteracies, 99, 117, 118, 193, 196–197, 219, 294
- Multimodality, 117, 193, 195–196, 295
- Multiple intelligences, 117, 142, 194–195
- N**
- National Council for Accreditation of Teacher Education (NCATE), 93, 94
- Neurotypical, 36, 65
- New literacies studies, 32, 196–197, 294
- P**
- Perezhivanie, 41, 47, 48n6, 132, 183, 293
- Play, 5, 7, 17, 19, 31, 39, 42, 46, 51, 54, 56, 65, 102, 104, 115, 133, 141, 142, 144–146, 148, 149, 151, 153, 157, 159, 163, 165–167, 171, 179, 182, 192, 193, 202, 218, 223, 226, 233, 237, 247, 251, 261, 291, 292, 295
- Problem isomorph, 62, 63, 67, 69, 83, 87, 132, 137
- Progressive education, 76
- Prolepsis, 26–29, 130, 158, 235, 238, 261, 295
- Protocol analysis, xxxiv, xxxvi, 48, 163, 164, 181, 182, 184, 223, 225–230, 232, 234, 242–244, 246, 248, 252
- R**
- Reactivity, 227, 234, 238, 239
- Reliability, 109, 252
- Romanticism, xxxiv, 85, 172
- S**
- Scaffolding, 53, 56, 123, 169, 170, 193
- Second language writing, 111
- Semiotics, 32, 116, 117, 124, 135, 194, 195, 295
- Sense, xix, xx, xxiii, xxiv, xxix, xxxiii, xxxvii, 15, 21, 23–26, 28, 29, 32, 33, 35, 36, 38–41, 43–46, 59, 64–70, 73, 99, 111, 118, 121n1, 123, 126, 127, 130–132, 137–144, 146, 149, 156, 157, 162, 163, 168–172, 174, 178, 180, 182–184, 186, 195, 200, 204, 208, 209, 211, 212, 218, 219, 224, 231, 233, 236–238, 241, 243, 244, 247, 250, 251, 254, 255, 257, 258, 289, 291, 294, 297, 299
- Setting, xviii, xxxix, 5, 19, 54, 75, 101, 127, 163, 191, 227, 246
- Sign, xviii, xxi, xxx, 4, 19, 49, 85, 99, 124, 161, 191, 225
- Smysl, 137, 138
- Speech genre, 31–32, 36, 59, 85, 116, 128, 131, 236, 238
- Standardized tests, 36, 44, 46, 52, 63, 67, 83, 87, 99, 136, 157, 158, 173, 175, 294
- Sumerian classroom, 75, 76
- T**
- Teacher research, 107, 113
- Telos, 26–28, 35, 50, 64–70, 73, 163, 167, 261, 297
- Text, xxii, xxiii, xxiv, xxvi, xxxiii, 3, 23, 62, 75, 100, 123, 161, 191, 226, 248
- Tool, xviii, xxvi, xxxv, xxxvii, xxxviii, 3, 19, 49, 85, 99, 124, 161, 191, 223, 250
- Translation, xi, xxii–xxiv, xxviii, xxxix, x1n2, 3, 5–8, 12, 17, 18n6, 48n6, 51, 115, 138, 159n6, 164
- Transmediation, 193, 297

INDEX

Twenty-first century literacies, 99,
193, 219, 261

U

Unit of analysis, xxxv, xxxvii,
xxxviii, 23, 50, 55, 60–61, 116,
192–194, 200, 218, 231, 232, 244,
250, 298

Utterance, xiii, xxvii, 23–27, 61,
139, 172, 193, 227, 228, 232, 236,
241, 244n1, 290

W

Word meaning, xxvi, 17, 23, 55, 61,
116, 119, 172, 194, 198, 200, 218,
231, 232, 241, 295

Workplace literacy, 99

Z

Znachenie, 137, 138

Zone of proximal development, xxx,
3, 49–74, 158, 254