Critical Praxis, Design and Reflection Literacy: A Lesson in Multimodality

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Abstract In this chapter, I explore a critical praxis grounded in social semiotics that is distinct from the traditions of critical literacy in a) its emphasis on the capacity to create and b) its explicit attention to the range of semiotic resources with which we communicate. Drawing on the concept of *design* put forward by The New London Group and on the concept of *reflection literacy* as described by Hasan, I put forward the tenets of such a praxis before illustrating the ideas using classroom data from a national SSHRC-funded study of multiliterate pedagogies. The examples powerfully demonstrate students' capacity to engage with and remake sophisticated meanings not only to achieve sanctioned curricular goals, but also for purposes they have charted independently.

Keywords Multimodality • Critical praxis • Multiliteracies • Mediation • Social semiotics • Reflection literacy

1 Introduction

A critical praxis expands learners' capacity to create. This central tenet is sometimes lost in educational literature on critical orientations to literacy/ies and learning, and in ensuing discussions regarding text analysis, reader positioning, and/or the realization and use of power. Yet research in this tradition shares an underlying interest in change, a change that is qualitatively different from either developing students' disciplinary knowledge or fostering civic engagement. In the field of critical literacy, it is change that can "…engage students in the analysis and reconstruction of social fields" (Luke 2000, p. 451); it is also change that serves an overtly political enterprise with "an explicit aim of the critique and transformation of dominant ideologies, cultures and economies, and institutions and political systems" (Luke 2012, p. 5). Significantly, though, while a critical literacy perspective

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emphasizes macro social concerns, the change for which it advocates can only occur in an instance of creating – in an unfolding conversation, the selection of a word or image for a text, and/or a reflection on experience.[1] It is change that begins when possibilities offered by a context are reimagined and/or reconstrued by an individual. Thus, the imagined social change of critical orientations to literacy/ies is necessarily a simultaneous change of a different sort, a change in an individual's capacity to create. That change in one's capacity requires expanding what Matthiessen (2009) has referred to as *personalized meaning potential,* the semiotic resources with which an individual makes meaning of their world (Potts and Moran 2013).

It is the capacity to create which centers this chapter, part of a larger project exploring recontextualization as a knowledge practice. Complementing other work in this volume that draws on systemic functional linguistics (SFL), I examine the potential for apprenticing students in the production of knowledge through a critical praxis grounded in social semiotics and in Hasan's (1996, 2005) concept of *reflection literacy* (see Sect. 3). I begin by identifying two challenges that knowledge societies create for the project of critique: the ongoing instabilities of globalizing societies and the changing nature of texts. Next, I evaluate how those challenges are addressed by the concept of design set out by the New London Group (1996) and more particularly by Kress (2000, 2010) before exploring the complementarity of design, practices of design and practices of reflection literacy for orchestrating a critical praxis. I follow this theoretical discussion with a practical classroom example that focuses on two lessons in multimodality conducted with ethnically and linguistically diverse elementary students. To close, I reflect on the Language Arts projects produced by two English as an additional language (EAL) students after these lessons, and consider practical questions of a critical praxis grounded in reflection literacy.

2   The Project of Critique

For much of their documented history, classroom practices of critical literacy have focused on the written word. In no small part, this is because writing holds a powerful place in social activity. As objects, written texts carry the accorded authority of religious and sacramental texts, legal precedents, and textbooks, all of which play a pivotal role in the ways that major social institutions exercise power and influence. From an historical perspective on literacy, the literate person, one who exercises mastery over powerful and privileged texts, accrues status because of their association with such works. Alternatively, writing can be viewed not as a possession of a social elite, but endemic to the functioning of everyday life (Barton and

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[1] Kress strongly prefers the term *multimodal ensemble* to *text* as it more accurately reflects the semiotic construction of contemporary communication. In this chapter, I have continued to use the term *text*, but not without reservations.

Hamilton 2000). Viewed this way, writing is a lens through which we can examine how people go about their lives, how they make meaning of their worlds, and how they simultaneously create resources and artifacts that carry meaning forward to be taken up by others. From this perspective as well, writing is a powerful positioning device and the capacity to critically examine how practices and texts replicate, reinforce and/or redistribute power is important to fulfilling the emancipatory aim of education.

Despite the potential contribution that teaching critical analysis of written texts can make to the aforementioned goals, rapid changes in contemporary communication linked to evolving technologies, shifting patterns of globalization, and alterations in the distribution of political and economic power disrupt the historical function of critique. Critique is an instrument of change, and traditionally texts are unpacked in conjunction with efforts to destabilize unjust, ill-functioning and/or unbalanced social mechanisms that disproportionately benefit a select few. Crucially, critique has existed in a symbiotic relationship with a stable object – an institution, practice or other form of social organization – to which it responds. But in the face of constant change, it becomes increasingly difficult to find something solid to push back against: it is more difficult for 'critical' analysis to perform its historical task of destabilizing the stability of existing power (Kress 2000, p. 160).

How can we understand the challenges facing the traditional project of critique? Commentary on American university admission practices provides a useful illustration. Such practices are again under fire for provoking destructive levels of stress in high school students while failing to meaningfully distinguish between applicants (Bruni 2016). The public press is not alone in demanding change, and the report *Turning the Tide* (Harvard 2016), signed and endorsed by powerful and respected academics, is a self-reflective call for action which (a) condemns the existing emphasis on individual achievement over social good, (b) recognizes that lower income youths' contributions to family well-being are often overlooked, and (c) demands greater emphasis on ethical engagement. The report is a thoughtful piece that addresses many concerns raised by educators working with low-income immigrants and refugees. But how does it function as critique? What change does it seek? Nominally, it is a call for admittance practices to contribute to a more just, caring society. Practically, it argues for changes in admittance criteria. But would asking for evidence of ethical decision-making in daily life, emphasizing "meaningful, sustained community service," and giving preference to applicants whose recommendations contain target adjectives affect who gains admittance to elite educational institutions? Would it disrupt the advantages accorded legacy scholars and/or those with access to consultants, counselors and tutors to assist with admissions processes? Those with sufficient economic and social capital will adjust to new criteria, just as they have adjusted to previous changes: flexibility is one of the benefits afforded by capital.

That flexibility speaks to Kress' point that critique has more difficulty destabilizing existing power distributions in periods of continuous change. Targets for critique

are less easily identified and are constantly adapting in ways that benefit individuals already resourced for change. For educators, this raises questions on how we engage students in working with powerful texts. How can a critical praxis function in contemporary society such that our students are able to effect change in their own lives and the larger society? How might we explain to students the purpose and function of critically engaging with texts? While the emancipatory aim of critical praxis remains the same, the pedagogy requires rethinking: more than merely assisting students in gaining access to privileged discourses, a contemporary critical praxis must apprentice them in the communicative flexibility needed to confront the shifting face of power.

The second question regarding the project of critique relates to the focus on language. Language no longer carries a vastly disproportionate share of meaning in contemporary texts, and this holds true whether one examines the diagrams, schematics and charts in scholarly science journals, the prominence of images in Instagram, Snapchat and other social media texts, or the multimodal journalism of mainstream and 'new' new media (Kress and van Leeuwen 1996/2006). Visual literacy's inclusion in curriculum documents and assessments acknowledges this change, and teachers have long had students examine images in advertisements. But visuals are only one aspect of this redistribution of meaning: pedagogic tools for analyzing non-linguistic dimensions of texts are often rudimentary, and language still receives a disproportionate emphasis. In order to appreciate how meaning is rarefied in contemporary communication, critical analysis must extend beyond the written – or spoken – word. Importantly, it must begin with the premise that communication is multimodal and that language functions in conjunction with other modal resources to create meaning.

These are not small challenges, not for citizens concerned with social change and not for teachers who must prepare students for unknowable futures but who are evaluated on narrowly-focused accountability measures. Yet the project of critique is more important because it is difficult: it makes little sense to leave learners unsupported in confronting the challenges described above. Further, the traditional work of critical literacy, the practice(s) of adopting a critical perspective in the daily life of classroom literacy events, is not distinct from the work of understanding, interpreting and creating academic texts. To critique, one must learn how power functions in texts and discourse; to create, one must not only understand but also develop control over the semiotic resources in which genres and registers are realized (Janks 2000). Addressing the larger social aims that accompany critical perspectives – shared economic and social opportunities, common experiences of justice, the right to cultural, religious and artistic expression that neither impedes nor is impeded by those whose interests are different from our own – requires addressing the changing demands of contemporary communication, but it also requires understanding that success rests on expanding students' capacity as meaning-makers.

3   Concepts for Pedagogy

How might a critical praxis grounded in social semiotics address such challenges? To start, social semiotics begins with the understanding that language and other resources (i.e. gesture, color, vocal quality) take on meaning through use in communication, and that these meanings are reshaped and remade in each instance of exchange (Halliday 1978; Kress 2010). It is the social that is primary – it is in the social realm that meaning is made. It is also the social world that places constraints on the resources and meaning potential available to an individual in any given circumstance, constraints that are explicitly and/or implicitly imposed by the particular ways in which power is exercised in the moment and in the larger culture. The limits that educational settings place on students' use of their plurilingual resources and the extent to which learners' internalize 'rules' on when and how those resources can be used is one example of how learners' meaning potential is frequently constrained by the exercise of institutional power. So social semiotics, with its attention to "how people regulate the use of semiotic resources" (van Leeuwen 2005, p. xi), is a form of inquiry well-suited to the project of critical praxis for it provides a means of reflecting on the dynamics of the meaning-making process.

But for this particular chapter, I limit myself to two concepts associated with social semiotic theories of meaning-making, *design* and *reflection literacy*, which informed the lessons I describe in Sect. 5. I address each in turn in this section.

3.1   Design

The concept of design has informed social semiotic theories of multimodality almost from their onset and is foregrounded in the work of the New London Group (1996) on multiliterate pedagogies. In what they term a programmatic manifesto, one which has had substantial impact on literacies theory in the English-speaking world, *multiliteracies* is used to denote not only print literacies but also literacies of the multiplying channels and media of contemporary communication; it is also used to signify not just the expansion of modes but also the cultural and linguistic diversity now equally characteristic of mundane and privileged registers. Within this perspective, design is both the process and product of meaning-making: it is the resources and patterns on which the user draws and the semiotic activity in which those patterns are employed. And in each instance of use, meaning is transformed at the same time it is reproduced.

Resources and Patterns *Design* is an overarching concept that encompasses meanings realized in texts *and* the meaning-making process. Put simply, designs are the resources and patterns available for creating texts. They are socially constructed and include the larger patterns of genres and registers that exist within and beyond the classroom. They also encompass social practices for sharing ideas, providing feedback and amending an answer. However, as will be seen in the discussion of

reflection literacy (Sect. 3.2), designs also exist within smaller units of meaning making. Examining designs in a classroom might include looking at how the choice of tense, aspect and/or modality alters the meaning being communicated, how the placement of an object on a page affects how it is understood, and how the first words one utters in a discussion shape what the listener subsequently understands. Discussing designs with learners involves sensitizing them to available resources and their affordances, including the plurilingual resources learners bring to the classroom. Crucially, the emphasis is on meaning: designs are explained in terms of their meaning potential.

The concept of design emphasizes transformation and this is central to understanding how critical praxis grounded in social semiotics might work. In the tradition of critique, effort is required to introduce change into a stable system; with design, effort is made to create temporary stability within a ceaselessly shifting context (Kress 2000). Each text's creator selects from the available designs to craft their own, unique meaning. The resulting text 'fixes' meaning at a moment in time and becomes a stable reference that others may take up and redesign in their own communication (Kress 2010). In other words, the text adds newly remade designs to the flow of meaning, and has the potential to alter the trajectory of the flow by acting as a reference point. This focus on creating a future, in contrast to critique's traditional focus on altering a past, inexorably concentrates students' attention on assembly and production. Existing texts are examined not so much for critique as for understanding the resources they provide.

3.2   Designing and Reflection Literacy

Designing is the 'doing' of design. A critical praxis recognizes that designing – or semiotic activity – is simultaneously an instance of meaning-making and the crafting of a semiotic context. This statement, which again draws on the concept of design put forward by the New London Group (1996) and Kress (2000, 2010) but also Halliday's longstanding work on social semiotics (1978) and in educational linguistics (1988/2007), requires some unpacking. As Hasan (2004) has pointed out, our interactions are a continuous semiotic flow that mediates our understanding of the world. The context for these interactions is itself a set of semiotic options, a space that offers a range of materials and designs that are selected from and drawn upon in interaction. When educators create lessons and units, they are designing contexts for future interactions: they are orchestrating designs or available meanings which they and their students can draw upon in their work in the classroom. In turn, the work within those contexts will be further acts of design. Thus, planning for critical praxis is (at a minimum) a threefold act of meaning: it entails the meanings that the teacher is making for themselves while planning; it is the assembling of available designs as a context for future interactions; and it requires envisioning how available designs might be orchestrated and/or taken up in interaction with and among students in a future context.

This leaves the question, "What, exactly, will students be asked to do?" What does designing for a critical praxis grounded in social semiotics require of teachers and students? Such a critical praxis has already been described as sharing critical literacy's interest in ideologies, institutions, and economic and political systems, but different in that it foregrounds learners' personalized meaning potential and emphasizes the future trajectory of designs. But what does that mean for classrooms and how is it accomplished?

Here is where Hasan's concept of reflection literacy becomes invaluable. For Hasan, the purpose of pedagogic action is to engage learners in the production of knowledge (Hasan 1996, 2005; Williams in press). Consistent with the work of the New London Group, this is not an invocation of individual originality or personal voice, but a claim to the right of all citizens to participate in the continuing evolution of the larger social order. Such participation requires contributing to collective knowledge, offering and evaluating evidence linked to a range of alternative perspectives, and engaging in public decision-making. In other words, it involves participating in the design of texts, and developing the studied reflexivity to assess available designs and their potential for reassembling meaning. The attention to detail implied by the concept of design compliments Hasan's (2011) call for the ability:

> …to interrogate the wording and meaning of any utterance – why these words, what meanings are ascribed to them, how do they differ from the use of the word elsewhere, what do they achieve by the way they are used, contributing to whose loss and to whose benefit? (p. 229).

Hasan argues that one's capacity for engagement in social transformation expands through understanding how lexicogrammatical resources are patterned and used to create, alter and maintain contexts. The corollary is that in a world where meaning is increasingly distributed across a range of semiotic resources and modalities, such understanding must be extended to the patterns and systems of those resources as well (Early et al. 2015; Kress 2000; van Leeuwen 2005). Thus, if designing is a practice of selecting from available designs – the blueprints, materials, and patterns of use, if you will – to create new meaning, reflection literacy is the capacity to critique how designs serve their users' interests. Together, they provide a powerful foundation for a critical praxis.

3.3   Application to Pedagogy

A critical praxis that builds on the concepts of design and reflection literacy leads to subtle but important shifts in the day-to-day planning and organizing of teaching. It is important to see these as shifts and not radical changes, and readers are likely to recognize similarities with their own practices. Yet attention to the integral relationship between semiotic resources and the production of knowledge, to the designs and processes of designing meaning, requires small but crucial transformations to praxis.

One shift is how a critical semiotic praxis alters criteria for selecting materials and resources – the available designs – for lessons and units. A critical praxis, whether or not it is grounded in social semiotics, engages students with the world as it presented to them, often through critique of curricular documents and textbooks. However, design requires the understanding and capacity to put semiotic resources to use. Before that capacity can be developed, learners must first *recognize* the resources available to them. *Recognition*, as Bezemer and Kress (2016) argue, is "the task of making what is currently unnoticeable noticeable, what is inaudible audible and what is invisible visible" (p. 5). Thus materials in a critical semiotic praxis are selected to support students in *recognizing* a resource. In Sects. 5.1 and 5.2, I describe how these decisions were made for the multimodality lessons, but it is important to note that the lessons also helped us as educators identify resources that students possessed but of which we were previously unaware. In a critical praxis grounded in social semiotics, there is no presumption of mutual recognition. There is always the potential for each to learn from the other.

It is also important to highlight the similarities and differences between our attempts at a critical semiotic praxis and other pedagogies situated within social semiotics. The pedagogy put forward by the New London Group recognizes the need for overt instruction, but is more ambiguous in addressing systems of semiotic resources (Cope and Kalantzis 2009; New London Group 1996). In contrast, the genre pedagogies associated with the Sydney School of systemic functional linguistics (SFL), primarily though not exclusively focused on textual organization, pay close attention to how linguistic resources are deployed. These genre pedagogies share a common process that moves from text deconstruction to independent construction, and aim to draw students' attention to the features of text types (Martin 2009; Rose and Martin 2012). However, such pedagogies address production of relatively stable texts for which the goal is clearly defined. They do not apprentice students "to independently critique relationships between norms of knowledge and norms of discourse through a deep understanding of the function of language in knowledge reproduction and production" (Williams in press). Nor do such pedagogies support students in establishing independent purpose(s) for their communication or in evaluating and assessing designs (linguistic and otherwise) that can further their goals. In adopting a critical praxis grounded in social semiotics, choices of materials and resources need to support learners in developing a critical stance to the relations between designs and meaning, an essential attribute of *reflection literacy*. Without this critical stance, the pedagogic practices risk failing to foster the flexibility required in contemporary communication.

A further shift in planning and organization relates to the range of designs made available to students through the selection of texts and materials. For two important reasons, a critical praxis grounded in social semiotics engages students with the world as offered beyond the classroom; that is, it engages students with designs – patterns in texts, registers and/or genres – other than what is offered in textbooks and formal curricula. First, the pace with which digitization continues to contribute to the transformation of communication exacerbates the lag between the development of sanctioned curriculum materials and the patterns of knowledge produc-

tion beyond school. This requires rethinking how non-curricular designs might be incorporated into classroom practice so that students engage in the participatory practices of contemporary knowledge work.

But there is also another longstanding reason for going beyond textbooks and formal curricula. Subject or disciplinary knowledge is remade for pedagogic purposes: it is selected, sequenced and recombined to create the discourses we recognize as school. This recontextualization is an essential and inevitable dimension of educational processes, for young children cannot "do" science (for example) as a particle physicist can. But these processes of recontextualization embed knowledge in a set of regulatory relations that sanction what is problematized and what is assumed, how voices are foregrounded and/or ellipsed, how knowledge claims are positioned and warranted, and who can question whom (Bernstein 1990; Hasan 1996). Disciplinary knowledge is distanced from its site of production and the careful hedging and uncertainty that is typical of scientific literature is remade into fact-like assertions about the world. Equally if not more important, the bases on which complex notions of justice, of community and of social value are negotiated and regularized, and the voices of less powerful communities obscured. Speaking from the South African context, Zipin et al. (2015) argue for attention to the *"who/what/ when"* of curriculum selection and for "dialogue and activity in which learners engage wider social worlds in intellectual-*cum*-ethical ways" (p. 33). The careful curation of non-curricular designs cracks open the sometimes seamless knowledge of textbooks and school materials, allowing reflection on the moral as well as intellectual relations of designs and meaning.

That particular form of reflection, one that attends to the function of language and other semiotic resources in the re/production of knowledge, requires a language for design, a metalanguage for shared reflection and inquiry. Hasan and the New London Group assign significant weight to a functioning metalanguage for a conceptual language enables individuals to step back from specific examples and classify the patterns they observe. However, classification is not the goal and the mere presence of metalanguage in classroom interaction and activities is not a marker of individuals' expanded meaning potential (Schleppegrell 2013). Rather, metalanguage affords learners the capacity to analyze the *functions* of designs/patterns of semiotic resources: it enables students to explain how patterns of semiotic resources and patterns of meaning are related. Students cannot engage in the reflection practices for which Hasan and the New London Group advocate without a conceptual metalanguage for design.

Attention (a) to recognition of the range of available designs and (b) to the metalanguage required for reflection literacy are subtle but nonetheless significant features in planning and organizing a critical praxis grounded in social semiotics. In the remainder of this chapter, I offer an example of praxis, one that was co-planned with a teacher with whom I have a longstanding research relationship.

4 The Design Context

> Every design process unfolds within a unique situation: a complex and dynamic reality. A designer always acts in response to that reality…the real nature of design is to work within limited time and resources to do the best that is possible (Nelson and Stolterman 2012, p. 99).

What follows is an illustration of a critical praxis grounded in social semiotics. It takes the form of two lessons in multimodality that were incorporated into a Grade 6–7 Language Arts unit. In the strictest sense, it is not an application of the ideas and concepts I have discussed for these were evolving when the lessons were taught (see Sect. 5). However, the lessons were informed by the theories set out above, and were one test of their classroom utility. I begin this illustration by describing the multiple layers of the lessons' context – academic research project, classroom and teaching unit – because design is by definition a practice at the intersection of pragmatic limits and theoretical possibilities, and because context contributes to the available designs. I then set out the lessons' priorities before describing the materials created for the lessons, key moments in the lessons' orchestration, and two exemplars of student work created in the week following the lessons. From there, I reflect on the lessons' contribution to students' personalized meaning potential and the implications for continued research.

4.1 The Research Project

The lessons described in this chapter were developed within the context of *The Multiliteracy Project* (see http://multiliteracies.ca), a Canadian research initiative that examined how contemporary conceptions of literacies have impacted pedagogic practice. The seven-year collaboration funded by the Social Sciences and Humanities Research Council of Canada (SSHRC) brought together major research universities, school districts, a professional teachers' organization, and non-profit organizations, all of who conceived of literacy as a social practice. Recognizing that practices are unambiguously linked to particular historical, cultural and political settings in which they are situated, the collaboration focused on the shifting literacies of globalized, technologically-mediated societies, including but by no means limited to (a) the continued place of traditional print literacies, (b) the demands of digitalized, richly multimodal texts and textual practices, and (c) the promise and challenge of classroom diversity. Most importantly, the project explored how the theorized benefits of a multiliteracies pedagogy translated into classroom learning practices.

The Vancouver School Board, the second largest school district in the Province of British Columbia, was a major collaborator in the research. The Board has a history of innovation in English language education, of prioritizing social justice issues, and of participating in leading edge research in social and emotional learning. In researching multiliterate, multilingual pedagogies against a background of changing

educational demands, that history was a major contribution to the project. The teachers involved in this work were master teachers, experienced mentors and leaders who were recognized by their peers and school leadership as making a difference in learners' lives. Very few, however, were familiar with SFL and/or social semiotics.

Preliminary case studies of teachers' praxis identified a number of strengths that cut across student age groups, language histories and socioeconomic profiles. At the same time, classroom practices failed to capitalize on the meaning potential of students' home languages in furthering academic achievement, despite teachers explicitly communicating the value they attached to students' linguistic and cultural heritage and despite students' involvement in authoring a range of identity texts. In addition, although students produced sophisticated texts, there was a notable lack of metalanguage for discussing semiotic resources. Both issues became priorities for the lessons in multimodality.

4.2   The School

Sir Matthew Begbie Elementary, located on the east side of Vancouver, had several teachers participating in *The Multiliteracy Project*. Begbie is and was a school sitting at a nexus of urban communities that range from the poorest in Canada to those facing rapid gentrification and rising home prices. At the time of this research, the vast majority of students came from working class families and parents were frequently employees at small factories, cooks in sushi restaurants, clerks in shops and businesses, and equipment operators.

MJ Moran, who teaches at Matthew Begbie, is someone with whom I have researched and collaborated for an extended period of time. MJ, as she is known to students, had taught a Grade 6–7 combined class for several years. The students whom she taught Grade 6 remained in her class for Grade 7, which allowed MJ to create a dynamic of apprenticeship and mentoring across and within grade levels. Of the 27 students who participated in the lessons in multimodality, more than 70% had a home language other than English and the language groups included Cantonese, Vietnamese, Spanish and Tagalog. Three students had designations for special learning needs other than English as a Second Language (ESL).[2] Because the neighborhood was relatively stable, I knew several of the students' older and/or younger siblings through my work in the school over the years, and some children had been research subjects in earlier years.

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[2] At the time, the Province of British Columbia used the designation English as a Second Language (ESL) to identify students for whom schools received additional funding.

4.3   The Teaching Unit

The lessons in multimodality were taught toward the end of a Language Arts unit on the novel *Zack* by William Bell (1999). MJ designed the unit as a novel study, the second which students had undertaken that year. (For a description of the selected novel and how it was taught, see Moran n.d.-a, n.d.-b). For the purpose of this chapter, the most important point is how MJ adapted the familiar classroom activity "read-write-draw." In each lesson, MJ would read aloud a chapter of the novel. Then at periodic intervals throughout each chapter, she would stop reading and guide students through a sequence of talk-draw-talk-write. Each sequence began with a one-minute discussion among three students, triads that worked together for 1 month and which were "intentionally organized to support all learners" (Moran n.d.-c). Particularly in early lessons, MJ modeled reflective questions in a think-aloud of her own reading process. This strategy helped to scaffold students' reflections on what they had heard, in wondering about what had and might happen, in identifying connections with their own lives, and in interrogating emotional responses to events in the story. Crucially, the questions opened possibilities for discussion instead of assessing comprehension, although they also provided MJ with vital information on students' progress. (Note: Moran's web-based account of her practice includes videos of the students' interactions as well as extensive examples of their work, *Multiliteracy Project.*)

After 1 min of discussion, students were told, "Draw!" At that point, they had 2 min to represent their developing ideas in an image. This was followed by a second one-minute conversation to "Talk about it" (Moran n.d.-b), after which students had 3 min to write. Again, students had relative freedom in their choice of topics, with one important restriction: they were not to rewrite the story but to write what they were thinking and/or where the discussions had taken them.

The students progressed through the novel in this fashion for nearly 6 weeks. Because the study of literature in elementary classrooms is intended to foster a love of reading as well as instigate discussion of the human condition, the pacing of chapters was relatively leisurely. However, the discussions were intense. There were no graded assignments, but students were often asked to reflect on their learning. At the end of the novel, students were given 1 week to create a project that responded to the prompt; "Show what you know" and projects were shared in a carousel activity. It was just before work began on the projects that the lessons in multimodality were conducted.

The novel study built on established classroom practices of individual and collective reflection, of wonder, and of sharing knowledge, and drew on the students' well-established metalanguage for reflecting on learning processes. These were resources and practices that we would reuse in the lessons in multimodality.

5   A Critical Praxis: Lessons in Multimodality

5.1   Setting the Priorities

> Diane and I had previously discussed how the students naturally represented their under-
> standing using modalities when preparing projects, and that possibly with direct instruction
> and opportunity to develop this natural tendency their projects might extend themselves
> even further. Teacher's accounts of practice. Moran (n.d.-d).

As a researcher in MJ's classroom, I held a privileged position, privileged because I
had the time and freedom to observe, to follow my own interests, and to ask ques-
tions that did not always link to the lesson objectives. In watching this process of
talk-draw-talk-write over several years, I was struck by the focus that time limits
created, by the contribution of peer conversations to the increasing depth and range
in students' thinking, and by the extent to which remaking meaning across modes
contributed to understanding. All three types of practices are well-documented in
language and literacy research as contributing to the success of students for whom
English is an additional language. However, there were unrealized opportunities.
Though the pattern of talk-draw-talk-write entails translating meaning across
modes, the students appeared largely unaware of the relationship between modes
and meaning. Additionally, although students frequently reflected on their learning
and learning practices throughout the novel study, there was less attention given to
the novelist's linguistic choices or to the students' choices as they made and remade
their understandings of the text. Quite simply, the necessary metalanguage for
reflection literacy was not developing in tandem with other aspects of students'
academic literacies practices, and that gap in current practice became the impetus
for lessons in multimodality (see also similar findings in Shin, this volume).

   As MJ alluded in her web-based account, we had frequently discussed how a
conceptual language for meaning making – a metalanguage – might expand stu-
dents' meaning potential. Over the length of my involvement in this classroom, I
had previously taught short sequences of lessons to test out ideas being developed
by the research team. This Language Arts unit provided another opportunity, and
MJ and I identified two periods of roughly 90 min each when I could work with the
11- and 12-year-old students. The objectives for the lessons evolved from our dis-
cussions and what I had observed:

- Semiotic resources/modes – The lessons would transform students' existing,
  here-and-now understanding of materials (paper, color, etc.) to a theoretically
  informed concept of modes and their affordances, and how they functioned in
  meaning making.[3]
- Metalanguage – The lessons would provide a metalanguage for evaluating modal
  choices that included but was not limited to speaking and writing.

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[3] The lessons employed the concept of mode put forward by the New London Group (1996). In
more recent writing, Kress (2010) puts forward more delicate distinctions between semiotic
resource, mode and modal ensemble.

- Multilingualism – The lessons aimed to situate language*s* within the array of resources available to students. In other words, students were to be supported in seeing their languages as available designs for furthering their learning.

5.2 Selecting Available Designs

The process of orchestrating a critical praxis grounded in social semiotics includes selecting from, juxtaposing and sequencing available designs. For these lessons, the materials needed to support students' analyses of modal affordances such that students' capacity to select and transform designs for their own purposes was expanded. Three sets of resources were created: a slideshow, three handouts and the raw materials for an assemblage that would be co-created with students in the second lesson. The first two are discussed in this section while the assemblage is discussed in the context of the designing.

The slideshow, which consisted exclusively of images, was the backbone of a series of classroom activities as well as a resource for designing. The images were sequenced according to their purpose.

- The first slides were screenshots of images from online news stories and used in activities focused on modal affordances and the communicative purposes behind modal selections.
- The second series of slides were taken from multiple sources and showed writing in less familiar combinations with other modes (ex. Seattle Public Library's walls and floors; visualizations of data). These slides were primarily used to support students in reimagining how modes might be recombined.
- The third set of slides displayed images from museum installations. These were included to support students' reflections on juxtaposing modes, but were less targeted at writing.
- The final slides were taken from books accompanying art exhibitions, including an exhibit organized around the work of Bruno Latour. These extended the concept of space as a semiotic resource, but also illustrated differences in texts' interactivity.

As illustrated above, the slideshow could and was designed to be *read* in multiple ways. First, slides were selected and sequenced for orchestrating classroom discussions, discussions that would support students' reflections and developing conceptual understanding. Second, individual slides performed as available designs for students' projects. Finally, the slideshow complemented other resources developed for the lessons, with its modal affordances – projected screen size, color, etc. – functioning to realize unique contributions to meaning. Thus, it provided a further model for reflection. Overall, the slideshow was designed to function as a contextual resource that could be taken up or ignored in the process of designing.

Two slides require particular attention because of the powerful ways they were used by students. One was a visual from the exhibit "Making things public:

Atmospheres of democracy," which centered on Latour's sociology of knowledge (Latour and Weibel 2005). Ethnographies of the production of scientific knowledge underpin much of Latour's oeuvre, and the exhibit and accompanying book highlight debates and uncertainties behind the seeming sanctity of dominant ideas. In the exhibit, artists and writers sought to unveil these debates in unique and powerful ways. One large installation was a board with the following question across the top, "Which is more important: the correct decision or the correct process?" One side was marked "decision" and the other "process," creating a continuum for responses. To the main installation's right, a small display, much like those in a post office, offered viewers a selection of post-it notes. Viewers were invited to respond to the prompt by posting a written response along the continuum. The exhibit was included in the lesson's slideshow because it drew attention to interactivity as a dimension of design, and because consistent with the priorities outlined by Hasan, it highlighted the social nature of knowledge.

The second set of images of immediate relevance was from a Museum of London exhibit. For this exhibit, immigrants were invited to write imaginary postcards to people in their country of origin that expressed their thoughts and feelings about immigrating. The postcards were written in the immigrants' mother tongues but translated into English, and non-immigrant English citizens were invited to write responses. English and non-English versions in a range of languages were used to bring language*s* into discussions of multimodality.

The handouts' design also targeted multiple objectives. They functioned as available design and modeled the semiotic affordances of writing (fonts, font sizes and weights, text direction, etc.) and space (line, white space, layout). They also offered a metalanguage for design and while not comprehensive (i.e. they did not include a definition of the five modes set out by The New London Group[4]), they reinforced concepts targeted in classroom activities: working definitions of mode, media and affordance and a system for classifying texts by the degree and nature of the reader involvement complemented designs targeted for recognition in the slideshow. Again, the key point is how the materials could be orchestrated to engage students in practices of reflection literacy. Handouts were simultaneously available designs and explicit instruction in how meaning is realized within and across modes. They intentionally modeled the ideas being taught and reinforced conceptual language. While the prompt for the students' project was relatively open-ended, the place of explicit instruction in supporting critical reflection was key to these lessons' contribution.

5.3   Redesigning as Critical Praxis

To support students in creating – in contrast to critiquing – knowledge, a critical praxis grounded in reflection literacy balances a fine line. Designs are analyzed as resources for redesign and not as models for replication. Yet simultaneously,

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[4] The concept of mode continues to be refined by language and literacies scholars; however, these lessons were based on the work of the New London Group.

students must be sensitized to the tension between power and agency in the production of any given text, and to the constraints on choice experienced by the less powerful (Kress and van Leeuwen 1996/2006). For the research project, the lessons provided opportunities to test possibilities for such a praxis: we had not yet seen a conceptual language for semiotic resources combined with creative opportunities for text production in the researched classrooms. The metaphor of orchestration was useful for imagining how resources would be drawn into processes of designing.

To illustrate how the lessons unfolded, I will describe how the third material resource, the assemblage, was created and reflected upon. The assemblage's material construction was simple. Before class, five colored squares were hung from the ceiling to form a rough circle, with several feet separating each square. Hanging from each square were lengths of wool, each strand reaching 2–3 ft above the floor. Each strand matched the color of the square from which it hung (see Fig. 1) and each color represented one of the modes (linguistic, visual, spatial, audio, gestural) set out by the New London Group (1996). At the beginning of the second class, the student triads, the working groups of three, were given cardboard cards with five holes punched in them. After a brief review of the previous lesson, groups were asked to brainstorm examples of multimodal texts, to write each example on a separate card, and to identify the modes it used "to mean" (see next paragraph). After an initial brainstorm, examples were discussed as a class. Then groups were given several more minutes to continue their discussion. At that point, a representative

Fig. 1 Creating the assemblage

from each group collected their cards and added them to the assemblage by tying each to the relevant modes. For example, movies rely on all five modes, so a card for movies was added by tying five strands of wool, one of each color, to the card. A comic book uses three modes – linguistic, visual and spatial – and would be tied into the assemblage using three strands of wool representing those three modes. No repetition was allowed. Groups could continue brainstorming while cards were being added. Then we discussed what had been created.

Designing responds to the possibilities and limitations of the immediate context and the assemblage was developed in response to a question posed toward the end of the first class:

> If the intelligences are how you understand something, you can't understand something unless it's presented in front of you and if that's the case if it's presented to you why can't you present it yourself and call it a mode?

The first lesson's activities had successfully engaged students in rich discussions about the affordances of modes, rationales for selection of modes, and (to a lesser extent) the concept of design. Interestingly, the handouts' heading, "Everything means," began to function as a touchstone. In the context of classroom discussion, the nominal *meaning* was being transformed into the process *mean,* and "How does it (a mode/resource) mean?" and "How do you mean?" became (a) questions about the semiotic resources offered by a mode and (b) a student's design choices, including their choice of modes. Students were beginning to *recognize* semiotic resources in ways that had not previously been apparent; *recognition* made it possible to highlight the choices open to students, which in turn provided a foundation for increased *flexibility*.

However, my final step in the lesson was a step too far. In grasping that modes meant differently – that there was no equivalency in meaning across modes – the door was opened to introducing Halliday's seminal point that meaning does not precede the text. But however close students were to the cusp of this understanding – and by implication that meaning is socially produced – it was not close enough. It was clear to MJ and to me that no matter how earnestly students were attending to the lesson, I had lost them. To consolidate the successes and assess where to begin the next lesson, we used an activity in which students wrote an anonymous question on a post-it note, and I then responded to the questions. Most were quickly dealt with, but the question above required thought. The assemblage was the response.

Watching students add to the assemblage was exciting. The first suggestions were more conservative and more tentative, but the energy in the room built as students debated within and across groups what could mean and how it meant. A discussion about the image of roses stands out, not least because Kress has used the same object (2010). The group who put forward the idea argued that roses could communicate a range of thoughts and feelings, and that color, number and size all contributed to meaning. That led to a discussion of which colors were associated with what purpose and in what culture, whether roses could mean if the person giving and the one receiving didn't share a common understanding of color's signifi-

cance, and whose meaning counts in such circumstances. All this was sophisticated material for 11 and 12 year olds, but they were making the ideas their own.

The specifics of the discussion are important, but more important is what they indicated about the students' evolving thinking. The concepts of modes and affordances were becoming resources for analysis and decision-making. Simultaneously, "everything means" took on greater significance as students became increasingly aware that textual choices were never innocent of purpose. For at least some of the students, this appeared to be accompanied by a growing realization of the very point that had been beyond their grasp in the previous lesson, that the meanings communicated by multimodal texts were meanings particular to the modes and designs employed. The materiality of the assemblage was leading to an understanding of how meaning is created, and the activity became a further design for reflection.

It was into this context that I introduced the discussion of languages, which MJ and I have described elsewhere (Potts and Moran 2013). Multilingualism does not easily fit into the concept of modes put forward by the New London Group; however, it was possible within the lesson to position languages as an additional resource. Using the materials from the Museum of London, I asked the two Spanish speakers in the class, one from Guatemala and one from the Dominican Republic, to read aloud the Spanish postcard. I then asked them to compare the meanings with the English version and to identify any differences. They found none. Adapting my questions, I asked if they felt the same when they read the English and Spanish versions. To that I received an emphatic "No!" However, the two students had difficulty explaining the nature of the difference, and that difficulty intrigued their classmates. Thus, the notion that languages could signify differently was established.

5.4   The Redesigned

A critical praxis grounded in social semiotics prioritizes expansion of learners' meaning potential and their capacity to create; the two lessons in multimodality were injected into an established teaching unit to test the possibilities of such pedagogies in the practical realities of a classroom. The potential of our praxis is best assessed by examining subsequent student work, and for this chapter I have selected two projects created by EAL students who typically received marks of C and B.

Matthew's project focused on a specific scene from the novel in which the main character, the teenager Zack, was alone and asleep in his truck at a highway rest stop midway into his journey from Ontario, Canada to Louisiana. As illustrated in Fig. 2, it consisted of three distinct phases: a heading, eight cartoon panels and one blank panel. The question "Is this what cops do?" appeared above the cartoon panels in which he drew a sequence of events in which police awaken and rough up Zack, certain that a teenager in a truck with foreign license plates is involved in suspicious activities. For Zack, whose father is Jewish and mother is black, it was a first encounter with a particular form of institutional racism.

The novel contained many provoking scenes, but MJ recalled Matthew being particularly invested in this one. During class, Matthew had argued that the author's
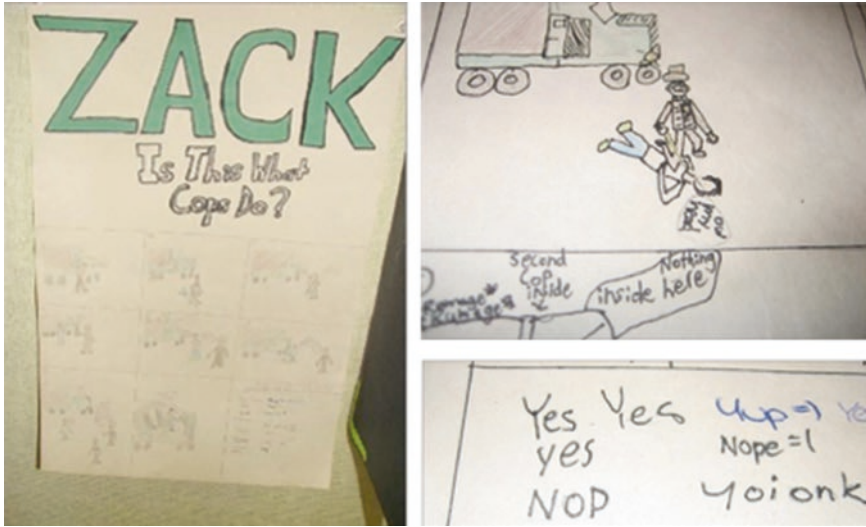
Fig. 2 Matthew's project

depiction of police behavior was inaccurate, and he remained dissatisfied when the discussion ended. Though the lesson occurred more than a month before students prepared their projects, the issue had obviously remained with him, and he used his project as an invitation to continue the discussion. As students rotated between projects during the carousel session, he posed his question, engaged peers with his question, and asked them to write their answer in the blank poster panel.

Matthew's project remade the design of the Latour-inspired exhibit to create a forum for continued debate. He did not use post-it notes (although a peer did), but did reuse the idea of posing a polar question and of a poster functioning as a co-authored text. Other classroom designs also made their way into his poster. For example, the layout reflected MJ's practices for read-write-draw, which had included having students fold a piece of paper to create a two-column, cartoon-like grid: Matthew's layout and drawings mirror aspects of this activity. The interactivity of his project is also notable, as it marked a shift from his prior projects. Consistent with the aims of a critical praxis grounded in social semiotics, his use of available designs allowed him to reopen a debate that institutional processes – the timetabling and pacing of lessons – had ended prematurely for him. Further, he presented the scene as open to interpretation, evidence that he perceived issues of justice as open to ongoing debate. Certainly there were other factors leading to this stance, not least established classroom practices of small group work and discussion. But though his point-of-view may seem untenable to some educators, particularly in a post-Ferguson world, his agentive use of available designs for his own purpose suggests that the lessons in multimodality had contributed to his capacity to create.

Kristina's project was more personal, but gave evidence of similar development in her understanding of modes and their semiotic potential. Indeed, her post-project

Fig. 3 Kristina's project

reflection stated that she had "learned different modes and media and information I need to make a project that had meaning." Her project took the form of a box, which she covered with small drawings of key scenes from the novel and corresponding quotes. The quotes were also translated into Tagalog (see Fig. 3). Alongside her box, she placed a one-page reflective essay in which she described her process for creating her project and explained how she experienced key scenes differently when working in Tagalog. In her presentation, she invited peers to choose one of the hand-drawn scenes, to reflect in their other language, and to write whether they experienced the scene differently as a result. Her box had an opening at one end and students added their reflections to her box for her to consider and share.

   The complex mediational processes of these actions are addressed in the earlier article; here, I am interested in the impact of a critical praxis that draws on notions of design. As with Matthew's project, one sees clear evidence of use of available designs. For example, in using Tagalog to explore the emotional impact of key scenes, Kristina continues a line of questioning pursued in the lessons. Like Matthew, her drawings are comparable to those created during the read-write-draw activity and they perform a similar function in communicating and supporting her understanding of the novel, although her essay suggests that she extended their function to assisting with translation. Again similar to Matthew, she adopted a design with a high degree of interactivity. Yet Kristina's project has a distinctly different purpose, for where Matthew's project invited continued debate, Kristina's offered an opportunity for personal reflection. Additionally, though she draws on

some of the same designs and was addressing the same audience, she is less concerned with the novel per se and more focused on how readers' responses to fiction are shaped and influenced. Importantly, whereas Matthew's project presupposes the existence of a range of viewpoints, Kristina's probes the origins of difference. Thus, one sees in Kristina's project a dawning awareness of the relation between language and the production of knowledge.

6   Discussion and Conclusion

I began this chapter by setting out a critical praxis grounded in social semiotics that is distinct from the tradition of critical literacy in its emphasis on personalized meaning potential. It draws heavily on the concept of design put forward by Kress and the New London Group and on the practices of reflection literacy sketched by Hasan, both of which center on supporting learners' capacity to create. The multimodality lessons illustrate students' power to engage with and remake available designs not only for achieving sanctioned curricular goals, though this is furthered by such work, but also for the purposes they have charted independently. Meaning is made and remade as semiotic choices are expanded, and the redesigned becomes an available design for peers and others.

The last point is crucial to a critical praxis grounded in social semiotics. It is not just that a student's capacity to mean has expanded, though this is hardly a 'just.' But in remaking meaning, individuals contributed to the knowledge available to their peers. During the week students prepared their projects, MJ observed students quietly walk to the back of the classroom to stand in front of the assemblage before returning to their seats to continue their work. The Spanish-speaking students' efforts to explain differences in their responses to two texts led Kristina to reflect on the value of her own linguistic resources. Kristina and Matthew designed projects that invited their peers to discuss issues and concerns of perceived common interest and of significant social importance, and in doing so provided additional opportunities for learning. In remaking available designs, the students were reshaping the context for future interactions and contributing to collective knowledge. Their work was emblematic of the work of a critical praxis.

I write this recognizing that the context for the lessons in multimodality was unique. They were taught by a researcher involved in a longstanding collaboration among teachers, a school board and a university, and while MJ was unfamiliar with social semiotics, her praxis included well-developed routines for engaging learners in shared reflection. I was able to build on my knowledge of those practices in my teaching and the lesson's success undoubtedly links to these factors as well as the lessons' design. Still, the conceptual power of social semiotics and its capacity to explain the dynamics *and* systems of meaning-making coupled with the concept of design espoused by the New London Group cannot be overstated.

And yet there are many questions. Some relate to the selection and sequencing of metalanguage and how its development might be built up across the grade levels. There are questions regarding the necessary knowledge base required for the design

of such pedagogies, the ways in which practices of reflection and conceptual development intersect with practices of lifelong learning supported by master teachers such as MJ. There are challenges with the still-rudimentary language for addressing the inherent multimodality of communication, and uncertainties related to the particularities for such a critical praxis. Finally, there is the ever-present need to attend to the demands of formal education systems as well as the more emancipatory aims of education.

But questions are not barriers; questions are guides for developing a deeper understanding and appreciation of what learners can achieve with support and guidance. The highly diverse learners in MJ's class were and are students whose profiles cause hand wringing in many educational jurisdictions. Matthew's and Kristina's projects, completed in a week during which they juggled a regular curricular load, warrants continued research into a critical praxis that supports students' capacity to contribute to as well as learn from established knowledge. It is evidence of young people's potential to comprehend the function of language and other semiotic resources in the production and reproduction of knowledge.

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