

Chapter 14

The Role of *Practice* in Cultural-Historical Science

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Es wird sich zeigen, dass es sich nicht um einen großen Gedankenstrich zwischen Vergangenheit und Zukunft handelt, sondern um die Vollziehung der Gedanken der Vergangenheit. Es wird sich endlich zeigen, dass die Menschheit keine neue Arbeit beginnt, sondern mit Bewusstsein ihre alte Arbeit zustande bringt.

(Marx, 1843/1975, pp. 56–7)¹

The Main Idea in Brief

All sciences have an *object* toward which they are directed. *Cultural-historical science* is directed to the study of human practices. *Human practices* are manifest in institutionally structured traditions of action, which are organised in relation to the production of collectively needed products. Cultural-historical science is directed to investigating these institutionally structured traditions of action. This chapter elaborates some general conceptual, philosophical, and practical considerations for making these investigations more concretely.

The expression *cultural-historical science* has been adopted to reflect a generalisation of a line of thinking grounded in cultural-historical psychology, and subsequent theoretical developments inspired by this psychology. Cultural-historical science has its own conceptual foundation and justification; it does not depend

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¹It will become evident that it is not a matter of a large hyphen between past and future, but of *realising* the thoughts of the past. It will become evident finally that mankind is not beginning a *new* work, but is consciously carrying into effect its old work.

directly on the history of other social sciences that have included *practice* within the scope of their object. This chapter clarifies (a) some of the research problems that have led to the formulation of this science, (b) the meanings of *object* and *practice*, (c) some of the first social scientific developments that focus on *practice*, and (d) some general principles of investigation in cultural-historical science. It concludes with some brief remarks about orienting points for further work.

The Road to Cultural-Historical Science: Practical Origins

The general notion of *practice* has been present within cultural-historical psychology from its beginning in the 1920s, because of its focus on historically developed practices – both as a necessary part of the process of forming psychological capabilities and as the source of psychological contents acquired by individuals. For example, Vygotsky and Luria, focused on the mastery of cultural forms of behaviour, with Vygotsky (e.g., 1929) drawing methodological consequences in his historical-genetic method, which focused on the genesis of psychological capabilities. Drawing on materialist ideas from Marx (cf. *The German Ideology*) about the important role of practice for the development of many psychological capabilities, and continuing Vygotsky's historical focus, Leontiev (1973/1959, 1978/1975) argued that psychological studies have to recognise that psychological processes (e.g., thinking and cognition) are inseparably bound with the processes of human life. This view was extended even further by one of Vygotsky's research collaborators, who asserted the need to study children's development in the actual processes of formation, such as in school classrooms (El'konin, 1961, p. 4). In all these instances, however, *practice* is treated as a background or precondition for understanding the development of psychological capabilities, rather than a central focus of investigation in its own right. As will be discussed later in this chapter, Vygotsky (1997b/1926) gave a brief paean to practice as being central for the development of psychology, but in general, there has not been direct attention to practice as an object of study.

My own entry into questions about practice first started with an interest to better understand what it means to understand human action in meaningful practices (e.g., Chaiklin & Lave, 1993). That interest continued as many researchers pointed at the importance of practices, and the need to understand their historical development, but often it came no further than pointing at or describing the problem (e.g., Rockwell, 1999; Scribner, 1985).

My awareness for the need to focus on *practice* as an object of study became particularly acute when I started to work with practitioners on trying to solve problems within their practice. The particular concern – which became formulated as *practice-developing research* (Chaiklin, 2006) – was how to make cooperative actions with practitioners that concurrently address an immediate practical problem, while giving a platform for “developing” a practice. In working on such

problems as what it means to “develop” a practice, both theoretically and practically, and in working with practitioners to make a model of their own practice, it became more apparent that existing theoretical resources for describing practices were barely existent. The need and importance to focus more directly on practice arose against this background. The theory of activity could be one way to address these problems, but the *activity* concept, as developed by Leontiev, is used to address too many issues. It looked productive to separate a *practice* concept from an *activity* concept, which has led to the present formulation of cultural-historical science.

The Meaning of “Object”

Every science investigates a range of specific substantive phenomena, where each science is differentiated from another by an overall defining characteristic that articulates “to what” the science is directed generally. Some European traditions use a word to refer technically to this “what”. For example, in the German tradition, one speaks of the *Gegenstand* of a science (e.g., Laucken, Schick, & Höge, 1996). Similarly, in Scandinavian traditions, one formulates the *genstand* (Danish) (or *gjenstand* [Norwegian]) of a science (e.g., at the University of Copenhagen, the first semester of psychology includes a course on the *genstand* of psychology).

There does not seem to be a specific English word for this purpose. Perhaps *object* is the closest translation to this idea. One of the definitional entries for *object* in the *Oxford English Dictionary* reflects this general idea of “the end to which effort is directed; the thing sought, aimed at, or striven for”. But the normal connotations of *object* in English do not include the idea of *topic* or *subject matter*, and the *Dictionary* does not indicate any sense of *object* as a technical or theoretical term. For example, the definitions and examples of the noun *object* given in the *Oxford English Dictionary* do not mention the words *science*, *research*, *academic*, *knowledge*, *topic* or *subject matter*. In short, the use of the word *object* in English does not seem to call forth the intense focus on articulating the general objective toward which a science is directed.

Perhaps brief mention of this linguistic lacuna in English is sufficient for overcoming it – or at least introducing the idea of “object of a science” in a technical sense. To take some of the social scientific disciplines that originated in the nineteenth century, the object of psychology is sometimes defined as the “science of human behaviour” or the “science of the human mind and its functions”; anthropology is described broadly as the “science of humanity”, or in some more specific versions, as a “science of culture and social organisation of a particular people”. These crude dictionary definitions serve to illustrate the idea of *object* as outlining the general category of phenomena that a science seeks to investigate, where different sciences are directed to different overarching objects.

Specific aspects within a particular science’s object may overlap with another science (e.g., some problems, such as personality, have been investigated by

psychologists, sociologists and anthropologists), but, in general, different sciences are formed in relation to different objects.

Any particular science is defined by the “object” on which it is focused, even if there are fundamental differences in the theoretical assumptions used to address the object. For example, in relation to psychology as a study of human behaviour, or the mind and its functions, some researchers use a cognitive psychological approach (e.g., committed to ideas of representations, uses of representations, and near-decomposability of mental processes and structures in relation to a context in which they operate) to explain human action (e.g., Anderson, Reder, & Simon, 1997, pp. 20–21), while others use a cultural-historical theory that focuses on mastering systems of signs and actions that have developed historically. Both are pursuing (roughly) the same object (e.g., explanation of human cognition and action), and often can use the same empirical material, but interpret or explain the empirical material differently. The visible differences between theoretical perspectives arise in the forms and kinds of knowledge sought about its object, where the formulation and investigation of specific questions depend on the theoretical choices used to delimit or select phenomena (i.e., ontological assumptions), which in turn usually engender particular epistemological assumptions or requirements for investigating these phenomena.

In cultural-historical science, the object is human practices, including both their collective development and their interaction with individual development. This object is formulated with its own positive intellectual roots, drawn in part from the nineteenth century, but cutting across the categories typically found to differentiate nineteenth century social science conceptions (e.g., individual vs. societal). In other words, this science is not simply a combination of (parts of) previous social sciences or a delimitation of a special subfield within one or more of these social sciences.

Whether psychology and anthropology, as presently conceived, will continue to survive and thrive as coherent sciences is irrelevant to the question of whether cultural-historical science can be formulated and pursued. The relation of cultural-historical science to these historical categories is addressed in the concluding section.

The general idea of *object* has now been introduced, along with the idea that the object of cultural-historical science is focused centrally on human practices; the next step in introducing cultural-historical science is to elaborate the meaning of *practice*.

The Meaning of “Practice”

Given that practice is conceived as an object of research, it is necessary to define or delimit the phenomena encompassed by this term. At the same time, because practice is a research object, a comprehensive, a priori definition is not expected nor intended. The following discussion provides (a) six conditions to be considered when formulating a definition of practice, (b) some initial indications about the meaning of practice, and (c) comments on theoretical implications of this definition.

Conditions for Defining Practice as a Theoretical Term

A first condition in defining *practice* is that the word has been used in the English language for at least 600 years. A variety of connotations and traditions of use for this word have arisen over this time, both in everyday and scientific contexts.

A second condition is that scientific meanings may or may not overlap with everyday meanings (i.e., there can be differences between everyday and scientific meanings). The problem is not a choice of words; we have little choice, but to use words, possibly ones with everyday meanings. Therefore, it is important to note that an everyday word such as *practice* can be used in a scientific conception without intending an everyday meaning. This condition is not restricted to the social sciences. Consider this observation from Bohr (1950):

[P]hrases often found in the physical literature, like “disturbance of phenomena by observation” or “creation of physical attributes of objects by measurements”, represent a use of words like *phenomena* and *observation* as well as *attribute* and *measurement* which is hardly compatible with common usage and practical definition and, therefore, is apt to cause confusion. (p. 53)

But as Bohr also notes:

[O]ur task can only be to aim at communicating experiences and views to others by means of language, in which the practical use of every word stands in a complementary relation to attempts of its strict definition. (p. 54)

A third condition is that the meaning of a word, when it serves as a concept, is not delimited by the definition of the word itself. The meaning of a word referring to a scientific concept is defined in part by its relation to a system of concepts. For example, as Bohr points out with his concept of complementarity, definitions of concepts are tied to measurement procedures. The problem is to articulate the system of ideas being defined, rather than trying to find the true meaning of *practice*.

A fourth condition arises because different theoretical perspectives within scientific traditions can engender definitions or ways of using the term *practice* to refer to different relations. Multiplicity of terms and definitional problems has been an ongoing problem in psychology (e.g., J.M. Baldwin, 1910, proposed a committee for unification of terminology in psychology with the idea of making a standardised dictionary of terms; multiple different meanings for the concept of intelligence among two dozen researchers, Sternberg & Detterman, 1986).

A fifth condition is that even if a standard definition is made, the meanings of technical terms do not always remain static; they transform as the system of theoretical concepts is developed. Vygotsky (1997b/1926, p. 282), while praising the contribution of Baldwin’s dictionary (from 1901 to 1906), also notes that attempts to read contemporary books (in the mid-1920s) with this dictionary is impossible, because the meanings of words have changed.

A sixth condition is the peril of working in a pluralistic theoretical environment, especially when one wants to establish a theoretical definition that runs against standard usage. This condition should be familiar to researchers in the cultural-historical

tradition who must explain, for example, that the meaning of *personality* refers to motives and personal sense, not to traits (cf. Chaiklin, 2001).

Given these conditions, there is no intention to provide an ultimate or comprehensive definition of *practice* that incorporates or covers the scope of existing usage and connotation. The meaningful formulation developed here does not necessarily have to be reduced to or equated with other definitions of *practice*. Some researchers may ignore or misinterpret explications and reasons for this specific definition, or continue to presuppose that there is a true, or primal, or essential meaning for *practice* – but then they must explain why this definition should dominate or why there cannot be a multiplicity of meanings. There is no suggestion that others should stop using their definitions or meanings of practice and adopt the one presented here, but researchers who want to use a different meaning of practice must elaborate and clarify their intended meaning (as attempted here).

Practice: A Dictionary Investigation

One way to formulate a concept of practice as an object of scientific investigation is to look in a standard dictionary, such as the *Oxford English Dictionary*. The meanings presented in the dictionary are formed in an historical way, reflecting the richness and embeddedness found in the everyday meanings associated with practice. That is, examples of “everyday use” of this term from over the centuries are collected, with linguists making a reductive analysis of the main themes in how this word has been used (comparable to a social scientific researcher who makes a reductive analysis of the main themes in an interview). In this way, it is possible to become aware of the range of issues and themes commonly intended with the everyday use of the word *practice*.

There is no expectation that the dictionary has discovered or recorded the true or more primal meaning of practice. One must form the scientific object from theoretical analysis, rather than accept uncritically the everyday meanings expressed in a dictionary as an adequate theoretical account for the idea of practice. While not denying or denigrating the value of everyday language, there is no reason to be restricted by existing conventions and consciousness associated with its definitions of *practice*. The remainder of this section explicates the inadequacy of these definitions, which helps clarify what is needed in a definition of practice for cultural-historical science.

In the analysis, all definitions, of *praxis* and *practice* (as nouns) in the *Oxford English Dictionary* (and not marked as obsolete) were examined. The main ideas in these definitions are listed under the heading “Characteristic” in Table 14.1. The number of each dictionary entry is identified in the top row of Table 14.1, with the x subscript marking the *praxis* definition. The ✓ indicates which characteristics are given for that definition. For example, the definition for the first column (1a_x) is: “Action or practice; *spec.* The practice or exercise of a technical subject or art, as distinct from the theory of it; (also) accepted or habitual practice or custom”.

Table 14.1 Simple analysis of definitions of *praxis* and *practice*

Characteristic	1a _x	1b _x	1c _x	1d _x	1e _x	1	2a	2d	3a	3b	3c	4
Action / carrying out / doing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Distinct from theory	✓	✓		✓			✓	✓				
Voluntary		✓			✓							
Skilful					✓							
Habitual / custom	✓								✓	✓		
Technical skill / profession	✓					✓						
Systematic / procedure										✓	✓	

The main elements of this entry are noted with a ✓ as seen in Table 14.1. Similar classification was made for the other definitions. Table 14.1 covers more or less all the variations that appear in these definitions.

As can be seen from Table 14.1, most of the dictionary definitions focus either on actions in general or more specifically on traditions of habitual, professional, technical, or skilful action. These actions may be conscious and wilful, but they do not need to be, especially if they are customary and habitual. This is fine, as far as it goes, but these everyday conceptualisations of the meanings of practice are focused mostly on observable aspects of practice, without giving an account or indication for why these actions exist or to what purpose they are directed. There is no account for the dynamics of actions. In other words, the dictionary does not include a theory of “practice” (as defined in the next section) as part of its definitions of *practice*. The following formulation of *practice* addresses these problems, trying to give a clear idea of the object to which cultural-historical science is directed.

Theoretical Definition of “Practice”

As just noted, one significant failure with the dictionary definitions is that they do not include any mention or indication of the object to which practice is directed (neither generally nor specifically). In the notion of practice developed here, this is an important defining characteristic.

All practices are organised around producing particular objects or products, where these objects are necessary for reproducing some conditions of life. Practices arise when, over time, these needed objects are repeatedly lacking (e.g. because they are consumed or new persons appear).

The assumption is that collectively (i.e., as a species) humans respond to these lacks by making material transformations that produce material objects or conditions that overcome the lack, thereby satisfying the need. Although a need may be satisfied in a particular instance (e.g., *your* house is built, *your* shoes are made), this general need (and associated lack) continues to appear for others, and may reappear again for you. A practice is reflected in a historically developed tradition of action that grows up around producing products that satisfy a generalised need (in relation

to reproduction for conditions of life). The term *generalised* is meant to emphasise that a need is found among many persons, as opposed to a single individual. *Conditions of life* is meant to be understood historically, in that conditions for life now include many objects and products that go long past pure physiological need².

For example, most societies use symbolic forms in their reproduction of conditions of life, where many societal practices depend on these symbolic uses. Knowledge of these forms is a repeated lack, in that all humans are born without this knowledge. Traditions of action (e.g. manifested as instruction in schooling organisations) address this lack by aiming to produce an object (e.g. specific ability to work with necessary forms) that overcomes this lack, thereby satisfying a generalised need in relation to the reproduction of life conditions.

Note that practice is conceptualised here as an ideal³ that is manifested or reflected in actions. The challenge of practice analysis is to formulate the ideal embodied in a tradition of action.

A second (and related) failure in the dictionary definitions is that the general idea of practice is not differentiated from specific forms of practice. The notion of practice explicated here is understood as embodying three forms. The first form – just described – is an abstract universal form. (All) practices appear as traditions of action that aim to produce objects or products that satisfy collective or generalised needs.

This universal characterisation of practice is not particularly useful as an object of scientific investigation. Some might even consider it a metaphysical assumption that can only be asserted but not substantiated. While it is possible to investigate the idea of practice in this general form, it is often more interesting and important to study a specific practice, in relation to particular generalised needs and products that satisfy these needs. This second form (embodying the universal idea of practice) is a *specific practice*, where a specific practice is organised in relation to producing objects for specific generalised needs. As a rule, specific practices become institutionalised in specific societies.

Production of bread, providing legal advice, teaching school children are specific practices found in many parts of the world. To study a specific practice in general is difficult, if not impossible. These specific practices must be analysed as *concrete practices* in relation to local historical conditions (e.g., laws, traditions, customs). The *concrete practice* is the third form (within a specific practice), which is grounded in the historical characteristics of a specific practice. For example, the need historically to preserve or rework legumes or grains so that the foodstuff is both preserved and palatable has been solved differently according to whether one, for example, produces tortilla in Mexico, pappadam in India, or knäckebröd in Sweden.

²Note that oxygen is not usually a need (from the point of view of practice), even if it is a need (from a physiological point of view). In some limited cases (e.g., medical practices, welding), where this gas is needed, then there are actions to produce it. But in these cases physiological need is not motivating its production. At another historical time, it may be necessary to produce oxygen as part of creating conditions for reproduction of life.

³Meant in a dialectical sense of the term, such as elaborated by Ilyenkov (1977).

A Few Theoretical Implications of the Conception

Although the preceding propositions for conceptualising practice are sparse, they yield many important implications and consequences. Here are a few of them.

The idea of need provides a hypothesis for the origin and essential defining features of a given practice. A need is satisfied by an object. The practice aims to produce the object. Without the need, there is no practice. The objects (or products) that satisfy needs serve to give a direction to actions, not in a deterministic way, but by providing an idea toward which actions are directed.

The relations between actions, product and generalised need are important for differentiating individual actions or collections of actions from a practice. The professional baker and the family may use some of the same physical actions in making bread, but the significance of these individual actions are understood differently because they are two different practices. Even though the physical product (the loaf of bread) is superficially the same, these are different objects, in that the baker is producing loaves for commodity exchange, which responds to different needs than the family which is producing loaves for their use-value in relation to their need for nutrition or aesthetic experiences.

The present discussion about generalised need has not considered concrete forms of need in any systematic way. Many spurious (or dubious) questions can arise once concrete examples are considered. Can “different” practices produce the same object? Must each need engender only one practice? Or can different practices satisfy the same need? With such abstract questions, one can quickly create classificatory nightmares. But it is easy to awaken from this bad dream, by recognising that the task is not to classify practices into mutually exclusive categories (unless one has some metaphysical reason, such as a divine plan). The external or surface forms of practices (i.e., relations between needs, practices, and objects) are understood as historical consequences of human efforts to respond to needs. It would be surprising not to find overlaps in the course of historical developments, in that generalised needs can arise that are not dependent on a single practice; and different practices can respond to these needs (e.g., consider the range of health professionals such as doctors, nurses, physiotherapists, nutritionists whose practices may be organised in part in relation to the same needs). This situation clarifies that the object of cultural-historical science is not to describe practices, but to conceptualise the processes of production and development of a practice, and the traditions of action to realise the product.

Summary Statement about Cultural-Historical Science

Cultural-historical science is the general science of the origins, development, and transformations of practices, both from individual and collective perspectives. It is directed at studying practice as an ideal, expressed in historically developed traditions of action organised to produce products that satisfy collective needs. The aim

is to understand the structural dynamics that organise these actions (e.g., the needs and products around which a practice is organised; the traditions of action used to realise these needs; the processes by which individuals acquire the ability to work within a practice).

This summary statement of cultural-historical science can be elaborated further after considering some of the conceptual issues that have motivated the formulation of this science.

Historical Developments that Led to a Focus on Practice

Given that there has not been a systematic scientific tradition that has taken *practice* as its object, it is difficult to point to a particular historical event or publication that was the initial or key event for establishing this focus. Nonetheless within dialectically oriented intellectual traditions, with their focus on the historical formation of empirical phenomena, one finds many relevant ideas and insights that lead to or underpin a focus on practice as an object. One could, somewhat arbitrarily, choose to start with Vygotsky (e.g., “Practice pervades the deepest foundations of the scientific operation and reforms it from beginning to end.” 1997b/1926, p. 305), or Marx’s eighth thesis on Feuerbach (e.g., “All mysteries which lead theory to mysticism find their rational solution in human practice and in the comprehension of this practice⁴” 1988/1845, p. 122).

To give an impression of some of the details of these historical sources and inspirations, this section considers some works from Karl Marx in the period from 1843 to 1845, and continues with a discussion of a section of Vygotsky’s 1926 analysis of a crisis in psychology. These considerations bring forward some of the conceptual roots for cultural-historical science, and illuminate some historical origins of a scientific focus on practice. They also show that a central focus on human practices as an object in scientific investigations has been present for a long time in world history, even if this focus has not been a basis for extensive theoretical and empirical investigations.

Human Practice as a Starting Point for Philosophy

The first theme to be addressed is the choice of a starting point for analysis of issues concerned with human action and experiences. Often the origins of psychology are described as an empirical break with and from philosophy. For one of the conceptual roots of cultural-historical science, the break occurred within philosophy itself, where arguments arose for the necessity to start from and with human practices as a way to address philosophical problems.

⁴Alle Mysterien, welche die Theorie zum Mystizismus[us] veranlassen, finden ihre rationelle Lösung in der menschlichen Praxis und in dem Begreifen dieser Praxis.

The following brief discussion highlights some of Karl Marx's considerations that direct a focus on human practices as the way to address philosophical problems. Perhaps the most important formulation of this idea is found in the *German Ideology*:

The premises from which we begin . . . are the real individuals, their activity and the material conditions under which they live, both those which they find already existing and those produced by their activity. These premises can thus be verified in a purely empirical way. (Marx & Engels, 1988/1845, p. 42)

This statement comes immediately after Marx criticises German philosophers for not considering the relation between their philosophy and the German reality, “the relation of their criticism and their own material surroundings” (p. 41).

The important consequence or implication of Marx's intention is that philosophy must start from exploring the empirical consequences of human practices (cf., the eighth thesis cited previously). In other words, philosophy must be conducted through analysis of the empirical conditions of human life and its implications. This “obvious” step – to move philosophy from the critical reflection and assertions of philosophers to the analysis of the consequences of human practices for human life – is still not widely recognised among philosophers and social scientific researchers (for an exception, see Jensen, 1999).

Some of the considerations leading to this formulation can be seen in a letter that the young Marx wrote in September 1843 to Arnold Ruge, just prior to his move to Paris to collaborate with Ruge in the short-lived production of the *Deutsch-Französische Jahrbücher*. During this period Marx was engaged in an intensive program of reading about political economy, socialist thought, economic history, and political philosophy – which he continued in Paris (see McClellan, 2006, pp. 59–71). This letter – which was later published in the *Jahrbücher* – expresses the substantive tasks in front of them.

The letter contains many important topics and issues, which are well worth reading. For now only a few selected quotes (see Table 14.2) are discussed to bring out two important points. The first is a contrast that will appear again later in the discussion about the crisis in psychology at the beginning of the twentieth century, namely the relation between intellectual work (whether as philosophy or empirical research) and societal practices. The second (and related point) is their assertion of the limitation of rational analysis (as philosophy had been largely practiced), and the reconfigured role (or form) of philosophy, which methodologically must engage with the reality that it is studying.

These quotes exemplify this line of thinking about the role of practice in philosophy, rather than bear the entire burden of the argument. They were chosen because they are some of the earliest examples in which Marx starts to direct attention to the empirical processes of human interaction (both as a method and an object of study). While they do not formulate the idea of *practice* per se, they help to understand why attention was directed to the processes of societal life.

For easier reference, though perhaps at the expense of literary force, fragment A in Table 14.2 is separated into numbered sentences. The reading strategy is to

Table 14.2 Quotations from Karl Marx's letter to Arnold Ruge, September 1843**Fragment A**

1. Not only has a state of general anarchy set in among the reformers, but everyone *will* have to admit to himself that he has no exact idea what the future ought to be.
2. On the other hand, it is precisely the advantage of the new trend that we do not dogmatically anticipate the world, but only want to find the new world through criticism of the old one.
3. Hitherto philosophers have had the solution of all riddles lying in their writing-desks, and the stupid, exoteric world had only to open its mouth for the roast pigeons of absolute knowledge to fly into it.
4. Now philosophy has become mundane, and the most striking proof of this is that philosophical consciousness itself has been drawn into the torment of the struggle, not only externally but also internally.

Fragment B

The critic can therefore start out from any form of theoretical and practical consciousness and from the forms peculiar to existing reality develop the true reality as its obligation and its final goal.

Fragment C

[O]ur motto must be: reform of consciousness not through dogmas, but by analysing the mystical consciousness that is unintelligible to itself, whether it manifests itself in a religious or a political form.

apply reflexively the principle in Fragment B to Marx's own work (i.e., seeking to elaborate ideas embedded implicitly in these formulations).

Fragment A.1 refers to a kind of crisis among persons who are proposing socialist and communist solutions (i.e., "the reformers") to societal conditions, because, as Marx asserts, there are no concrete ideas of what the future societal form should be. Previously the intent (of philosophers), in Marx's view, was to produce and impose "some ready-made system" on societal life. "The new trend", named in A.2, shifts to a process in which a "new world" is found through "criticism". In cultural-historical science, research (i.e., criticism) is directed toward developing practice (i.e., "new world") by engaging with currently existing conditions ("the old one"). A.3 continues to reproach the a priori approach of philosophers (especially those committed to Hegel's thought), while A.4 again emphasises that philosophy has become worldly, it can no longer stand outside, reflecting on societal practices, but must become part of, and act within, the phenomenon it is studying.

Fragment B again emphasises the point in A.4, that existing societal practices are the starting point, and focuses on elaborating the possibilities in these conditions. Fragment C reiterates the rejection of a priori thought (A.2), and the need to analyse existing societal practices as a way of forming consciousness, rather than proclaiming solutions to problems through "dogmas".

The collective emphasis of these fragments focuses on the need to be engaged in and with societal practices as a focus of attention, where the "goal" or the "insight"

of this engagement is not the imposition of pre-formed plans, but to understand practices, or the consequences of practices (e.g., in the form of “mystical consciousness”), and through these analyses, aim to bring improvements back into practices (A.2).⁵

Marx’s concern in this letter was to argue that philosophical problems cannot be solved with “ready-made” solutions. But what consequences, if any, arise for those who want to make scientific research about societal practices? One answer can be formulated in part by taking a starting point in Marx’s *Theses on Feuerbach*. The main point is that some problems are not solved by “thinking” through, but by transforming material conditions that are the source of the problems. Hence the analysis of societal practices (i.e., theory) is only a moment in the process of developing practice.

By the end of 1844, Marx had produced several manuscripts about economic and philosophical issues. In the beginning of 1845, he needed to leave Paris, when he and other German expatriates were expelled by French authorities, moving to Brussels, where he continued his intense reading and writing, formulating ideas that were to become the basis of his materialist theory of history. During this period in the spring 1845, Marx wrote down 11 theses about materialism in a notebook. The direct, pithy style in which they are written suggests they were an *aide memoire* – meant to remind the writer of the key ideas to be elaborated and argued in a final text. While many of the ideas formulated in different theses were embodied in Marx’s subsequent work, their compact formulation remained for 40 years in his notebook, until 1886, when Friedrich Engels was preparing a pamphlet, *Ludwig Feuerbach and the End of German Classical Philosophy* (which was based on two articles he published in *Neue Zeit* in 1884, just after Marx’s death). As Engels explains in the foreword to this pamphlet, he had decided to find and look over the unpublished manuscript of *Die deutsche Ideologie* that Marx and he had produced in 1845–1846. In doing so, he encountered Marx’s notebook with these 11 theses, and decided to publish them (after making some editorial adjustments)⁶.

The *Theses* are a rich set of propositions, addressing many philosophical issues about materialism, the role of religion, the nature of human beings, the role of philosophy (see Brudney, 1998, Chapter 7; Hook, 1936 for comprehensive discussions). In several places, ideas are formulated in a single sentence or phrase that can be seen retrospectively to reflect key assumptions in contemporary social scientific traditions. The present discussion does not try to address all the aspects in the *Theses*

⁵This perspective on studying existing practices does not reify them, because clarification can bring new understandings that were not initially imagined implicitly or explicitly, which introduces new ideals to be realised (cf. Hegel’s discussion of the Absolute). For a similar reading of this letter, see Carver (1983, p. 30), which brings out the idea that Marx is focused on human practices, and development through those practices.

⁶The original theses from Marx were subsequently published in 1924. The original German version is available at: <http://www.marxists.org/deutsch/archiv/marx-engels/1845/thesen/thesfeue-or.htm>. An English translation is available at: <http://www.marxists.org/archive/marx/works/1845/theses/index.htm>.

that might be relevant for a cultural-historical science (e.g., the tenth thesis's focus on "social humanity" as a standpoint for society, the third thesis's consideration of the role of material conditions for thought, or the sixth thesis's description of persons as an "ensemble of social relations").

For now, the intention is to highlight an aspect of the theses, which Brudney (1998) has called a "simultaneity model" of interaction with the world. The main idea is that individuals (as persons, including researchers) cannot stand "outside" the world, as if it were an external object to grasp. Rather "the fundamental relation to the world is that of an agent continually changing and being changed by it, and a correct understanding *of* this fact is to be obtained in and through the process of changing the world" (p. 237). This perspective contrasts with a "feedback model" in which one acts, gets feedback, refines one's model and acts again. The critical point is that "understanding inheres in one's actions. There is no separate theoretical standpoint" (p. 237)⁷. In other words, because a researcher is already embedded in practical relations, before research starts, it is necessary to act in these relations as part of coming to understand them. This conception in the *Theses* has an important implication for cultural-historical science. The *Theses* are directed against philosophers, but the argument can be interpreted, as done here, as going beyond the simple point that one needs to have empirical material as part of understanding or interpreting the world. The issue being raised is the need to intervene in practices as part of the process of understanding them.

This idea is formed mostly compactly in Marx's eleventh thesis, "Philosophers have hitherto only interpreted the world in various ways; the point is to change it". This thesis is often quoted alone, where, out of context, it would seem to suggest that one should be working for practical transformation of societal conditions. This may also be implied in this formulation, but more important in the context of the other theses is that philosophical problems cannot be solved simply by interpretation, but by changing material conditions. Hence the importance of understanding practices and the importance of understanding changes in practices, and the limitation of a purely intellectual approach to addressing philosophical questions. From this point of view, Hegel is correct to note that philosophy, as a purely analytic activity, does end with him. Cultural-historical science can be understood as the science that seizes the implications of this analysis, focusing on practices as its object.

Vygotsky and Crisis in Psychology

Another important resource for understanding the conceptual roots of cultural-historical science is Vygotsky's (1997b/1926) text on the crisis in psychology about the object of psychology. The designation *crisis* started around the end of the 1890s,

⁷Brudney analyses all the theses in detail, concluding that the balance of evidence lies with the simultaneity model over the feedback model. I agree with this conclusion (even if I disagree with the overall thesis of the book in which this argument appears).

peaking in the mid-1920s, and continuing through the early 1930s. While much of the discussion was located in Germany, it was part of an ongoing international discourse that captured the attention of psychologists at the beginning of the twentieth century. This underlines the point that forming the object of a science is not a trivial matter.

Against this background, Vygotsky, the most important originator of cultural-historical psychology, wrote a book-length manuscript about this crisis. The main theme of this book was a discussion of this international crisis in the intellectual development of psychology, centred around the tension between a natural-scientific (usually behaviourist) perspective which sought law-like relations and a humanistic, subjective approach that sought to describe and understand human experience. (These tensions remain today.)

Of particular interest is Section 12 (in the subsequently published version of the manuscript), in which there is an extended discussion and argument for the importance of societal practices in relation to scientific psychology. The heart of Vygotsky's analysis is the need to put practice into the centre as the focus of psychology, with the need for a methodology that is appropriate to study human practices. In Vygotsky's analysis, these two aspects – focus on practice and an appropriate methodology – are what brings about the crisis and also provides the solution! It brings about the crisis because researchers wanted their basic research to be relevant for practice, in part as a societal legitimation of psychology as a science. Yet other investigators, outside academic psychology, were actually confronting societal practices, using psychotechnical approaches. These approaches were not particularly grounded theoretically, nor drawing on academic research, but possibly refined through decades or centuries of practical experience. The crisis arose in Vygotsky's view, because of the need for an applied or practical psychology that could meet the demands of societal practices:

[Psychology] which attempts not so much to explain the mind but to understand and master it, gives the practical disciplines a fundamentally different place in the whole structure of the science than the former psychology did. (p. 305).

This new role for psychology creates new demands for methodology (“practice as the constructive principle of science which requires a philosophy, i.e. a methodology of science”, p. 306). These methodologies, which were not generally available, are the source and the solution of the crisis in psychology. As Vygotsky notes, “Practice pervades the deepest foundations of the scientific operation and reforms it from beginning to end” (p. 305) and “reforms the whole methodology of the science” (p. 306).

One might expect – given Vygotsky's song of high praise about the importance of practice – that this concept would have a significant role in his written work. However, despite Vygotsky's dramatic and repeated assertions and challenges in Section 12 about the importance of practice as a way of conceptualising a new approach to psychology, there does not appear to be any insight or discussion about how to approach this problem, not even in other parts of the manuscript about the crisis. And discussion of this issue simply disappears from his subsequent writings.

That is, although Vygotsky's subsequent research was oriented to practical situations (e.g., concept use) and drew on the idea of practice as the main source of functional development, the idea of practice does not figure in any significant way in Vygotsky's theoretical or methodological discussions, nor does he refer to this discussion from the *Crisis* manuscript. While not excluding the possibility of finding such a discussion, its rarity suggests that the task formed by Vygotsky – of working out methodology appropriate to practice – still remains to be done.

Summary about Historical Roots

This section has shown some of the conceptual roots that motivate a general orientation to practice as an object for a science. A theme that until now has been allowed to run *sotto voce* in several of the discussions here arises from a juxtaposition of problems concerning knowledge production (an epistemological problem) with an interest to produce knowledge that is relevant to human concerns (a practical or substantive problem). The epistemological problem concerns the role of human action in producing knowledge. Lektorsky (1999) outlines this issue as a matter of *activity* (though not in the theoretical sense connected with the theory of activity, e.g. Leontiev, 1978/1975). The practical problem is focused on how research and action can be relevant to human practices.

For the most part, these roots only reflect on the importance of and need for focusing on practice. This is not the same as having concrete principles or a programme of work for how to investigate or work with such a science. The next section in this chapter assembles some general principles for working in this direction.

Some General Principles of Cultural-Historical Science

The discussion of the historical background in the previous section elucidates some of the considerations that motivate the formulation of cultural-historical science as the general science of practices. This section presents some of the general principles that characterise studies in cultural-historical science (Table 14.3).

Table 14.3 Some general principles of cultural-historical science

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1. Researchers have often only looked at the consequences of practices; the point is to develop them.
 2. Practices arise to produce objects that satisfy societally-meaningful needs.
 3. It is necessary to start by analysing a practice as a whole.
 4. A scientific task is to formulate and concretise objects on the basis of historical and empirical analysis.
 5. The interactions by which objects are realised must be explicated, through a differentiation of the whole.
-

These principles provide one way to understand Vygotsky's suggestion that by putting practice in the centre, the entire methodology of science must be reorganised.

The first principle articulates the main aspects of the science, namely the development and transformation of practices. On the surface, this principle seems uncontroversial (in that most researchers would claim that their research, at some point, would be relevant to this interest). The controversy starts when the "at some point" must be specified. Much research on practices remains at a descriptive or analytic stage, sometimes justified with the claim that one must first understand or describe a practice, before it is possible to intervene. This strategy may be appropriate or sensible, in some cases, but when is the description adequate or sufficient? This strategy can also serve as a way to avoid both confronting what knowledge already exists in relation to a practice, considering the purpose of a practice, what is needed to realise it, and daring to enter into developing that practice. Even more critical: what if some kinds of knowledge about a phenomenon can only be discovered from confronting the problems of attempting to form the practice, rather than trying to describe what others are doing? These matters will not be solved by description. Cultural-historical science, drawing on the analysis of Marx's *Theses on Feuerbach*, is oriented to the consequences of taking the "some point" to be "now". The first principle is meant to reflect an important epistemological assumption: significant knowledge of a practice can often only be gained through an engagement in trying to develop the practice.

The second principle simply reiterates the definition of practice presented before, but it is important to formulate this idea as a principle, because of its implications and consequences for the subsequent principles.

The methodological importance of the third principle arises from the assumption that a practice must be understood, in the first instance, as a unitary phenomenon (i.e., the system of necessary relationships or interactions that define a practice). It is not productive, even if it is possible, to decompose or select out particular aspects of a practice, without considering the relations and interactions within the whole of the phenomenon, because these relationships are interconnected, and mutually influential. This perspective is reflected in Vygotsky's (1934/1987) discussion of "analysis by units" and "analysis by elements": "In contrast to the term 'element', the term 'unit' designates a product of analysis that possesses all the basic characteristics of the whole. The unit is a vital and irreducible part of the whole" (p. 46). This particular quote comes from a text in which Vygotsky was analysing the relationship between thinking and speech, but the general idea is discussed elsewhere (e.g., "to proceed not from a thing and its parts, but from a process to its separate instances", Vygotsky, 1997a/1931, p. 68). In the present case, the second principle gives an important starting point for arguing that one is addressing the "whole" of a practice⁸.

⁸A comparable discussion, described in terms of working with "the totality of the relevant elements of an object" versus a "limited fragment of that theoretical ensemble" can be found in Bourdieu and Wacquant (1992, pp. 232–233).

The fourth principle emphasises the commitment to understanding practice(s) through a grounding in historical conditions, rather than simply appealing to “common sense” as a sufficient way of identifying objects. Maybe it is practically necessary, at present, to start with common sense – it seems as though this is often what happens – but in the long run, it would be better to ground objects in historical analysis. To illustrate the problem with using common sense or everyday understandings, consider the situation where, in most countries around the world, children go many days of the year to a special place where subject-matter activities take place (i.e., reading and writing in relation to natural and human sciences). What is the practice? Is it education? Schooling? Instruction? One risks a plethora of overlapping “practices”. Given the second principle, where one understands practices in relation to its object, then one needs to engage in further analysis, to identify objects, and differentiate the historical responses to those objects. See Chaiklin and Hedegaard (2009) for an analysis of education as a practice, where schooling and instruction are one particular form of practice. That analysis still does not have an adequate historical background, but its complexity should be sufficient to underline that we cannot continue to approach the question of practice as a definitional (i.e., dictionary) exercise.

The fifth principle is a continuation of the third principle. One cannot stop with identifying the necessary structural relations that embody the whole, one must continue to address analytically the principles of interaction (i.e. dynamics) among these relations in relation to producing the product of a practice. These dynamics may or may not be explicit or conscious among practitioners.

To take a simple example, if the object of cooking is the production of (tasty) food, then the dynamics may involve an interaction between the quality of raw ingredients, the availability of appropriate tools for the purpose (e.g., a convection oven), the conditions for preparation (e.g., enough room in the kitchen, how much time), and the technical skill of the cook. The critical point here is that these relations between these general concepts are always present in all cooking practices. That is, their presence does not depend on the consciousness of the practitioner. At the same time, in realising a product, the practitioner must work in relation to these conditions. To understand the dynamics, is to understand the processes by which a cook works with the material conditions to produce the object. The research problem is to better understand the principles of interaction among these relations in the production of the object.

More specific principles must necessarily be worked out in practice. This suggestion reflects an important theoretical point that principles should be formed from reflection over our actions (cf. Vygotsky’s general science; Marx’s letter to Ruge). In short, there are no methodological “roast pigeons” flying toward the open mouths of researchers; one must start hunting in the forest of practice.

Concluding Remarks

Practice is the object of cultural-historical science. This chapter, as a first introduction to cultural-historical science, has explicated the meaning of *practice* and

object, and presented some general principles for addressing this object. The chapter was motivated in part because of a series of meetings and workshops (see Acknowledgments of [Chapter 1](#)) to confront questions about methodological development of the cultural-historical tradition. In the 1970s and 1980s, it was possible to define one's interests in more oppositional terms ("We will not be like 'them'!", where "them" included some combination of characteristics as "positivist", "mechanical", "ahistorical", or "asocial", "unsituated", and so forth). In the first decade of the twenty-first century, when faced with the diversity of papers and interests from persons who are oriented more or less in the same theoretical direction, more difficult challenges arise in relation to formulating the general frame of one's science.

It would be convenient if one could make a few precise statements about the right kinds of research actions to make, together with short, clear justifications for the actions (such as this chapter has attempted). This reasonable expectation to achieve clarity about assumptions and principles used to conduct scientific investigation is undercut, however, by the endless mass of intricacies that arise – ontological assumptions about the phenomena under investigation, epistemological assumptions about what kind of knowledge should be produced, specifications of the objectives and purposes of the research, clarifications in relation to existing ideas and approaches. Thus, there was no intention to provide and defend a comprehensive methodological theory, with all the philosophical foundations addressed and clarified. Indeed such a goal would not be possible. If cultural-historical science is a living science, then these issues must be developed constantly; this is one of the consequences of the transformation of methodology that moves away from the foundational goals that have characterised much of (philosophy of) science in the past. Rather than resolve the foundational issues, which is seen as validating the science; this chapter works in the spirit of Vygotsky's point that truth is in practice, so these philosophical analyses cannot be an end in themselves or a validating foundation for cultural-historical science, they can at best give some orienting points toward developing practice.

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