A Social, Cultural, and Political Framework for Educational Research Methodology

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Introduction

One of the most appealing aspects of the framework that I draw on heavily within my own work – Vygotskian sociocultural theory – is its theoretical basis which I see as being incredibly robust. This gives it a core that is easily "transportable" to other contexts for research. Indeed, its uptake in the field I work in – language and education – is only relatively recent (e.g., Firth & Wagner, 1997, 2007) compared to its use in other areas across a diverse range of interests, including human-computer interaction (e.g., Nardi, 1996), mathematics (e.g., Bartolini-Bussi, 1991), and early childhood education (e.g., Rogoff & Morelli, 1989).

One reason I believe sociocultural theory is so powerful is that it is really a framework for thinking about humans and their development – how they relate to one another, grow, learn, think, and ultimately "come to be." It therefore transcends immediate disciplinary concerns by instead getting right to the heart of education, and our understanding of teaching, learning, and pedagogy irrespective of the context within which the theoretical constructs might be applied.

Although it might seem odd that I'm focusing on "theory" when my aim is to discuss "method", I aim to demonstrate how this framework provides the basis for "thinking" that is, by necessity, very much tied up with "doing." Indeed, Vygotsky, the Soviet psychologist who began developing the theory before his untimely death from tuberculosis in 1934 at the age of 37, never described his own work in theoretical terms but as "the genetic method." In his own discussion of "The Problem of Method" in Mind and Society (1978), for example, he draws on Lewin's analysis of phenotypic (descriptive) and genotypic (explanatory) perspectives in biology to argue for a new "way" of doing research.

For Lewin, biology had been historically based upon the classification of objects according to their external phenomenal features, which lead scientists to mistakenly analyse whales, for example, as fish (van der Veer, 2001). Vygotsky illustrates the limitations of such a perspective with respect to psychology by drawing on Stern's (1924/1975) conclusion that an 18-month-old child must be conscious of the relationship between signs, or "words", and meaning because their first instances of speech are similar to the sounds of adults. He argues, "[Stern] classes together phenomena that have absolutely nothing in common from the developmental point of

view [on the grounds that they are phenotypically identical or similar]" (Vygotsky, 1978, p. 62).

However, subsequent to the publication of Darwin's *On the Origin of Species* (1859), Lewin notes a shift in scientific methods of analysis within biology from an emphasis on what can be described now, in the present, to instead trying to identify the origins of the phenomena under investigation; that is, an understanding of its genesis. It is this meaning of "genetic" that Vygotsky appropriates in his own theory of mind and behaviour which drives his empirical work in terms of his "genetic method": the search for an "explanatory" – rather than "descriptive" – framework for making sense of data, with historicity the basis for understanding the phenomena we can now observe in the present.

I've structured this talk about three key ideas within sociocultural theory that will help explain the basis for the overall framework – mediation, activity, and historicity – and then give a brief example of how it applies to my own work, by highlighting what I argue is a further need to also account for policy.
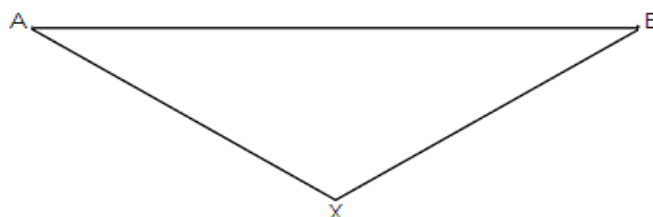
Mediation

The core of Vygotsky's theory is the idea that human development rests upon two different lines of development that are interdependent upon the other: the lower line of "natural" development, made up of our biological and physical impulses, instincts, and reflexes, together with an upper line of "cultural" development, which comprises the social and cultural ways of regulating who we are as a biological "mass of cells," including our understanding of ourselves, our world, and those around us. Central to this thesis is the concept of mediation, since we don't act on (or react to) the world directly on the basis of instinct alone, but through the use of tools and other cultural artifacts.

Vygotsky (1981) describes the concept of mediated activity in *The Instrumental Method of Psychology,* explaining that whereas a simple response to stimuli relationship (e.g., A responding to B) would be a direct connection at a natural level of functioning (i.e., instinct, or reflex),

> in artificial, mnemotechnical memory [i.e., a higher level of mental functioning, such as remembering, relating, comparing, attending, etc] … instead of this direct connection A-B, two new connections, A-X and B-X, are established with the help of the psychological tool X (e.g., a knot in a handkerchief, a string on one's finger, a mnemonic scheme). (p. 138)

He represents this diagrammatically as:

Figure 1: Mediation (Vygtosky, 1981, p. 138)

In this case, A represents the subject (i.e., a person), B, the object of their activity (e.g., remember a list of items for shopping), and X, the tools required fulfil that activity (e.g., pen, paper and the words for the names of various items).

Mediatory tools are not restricted to material items such as hammers, automobiles, and computers, but also include cultural artefacts such as language and other semiotic systems, including methods of counting, mnemonics, algebra, art, diagrams, graphs, charts, and even other people (Vygotsky, 1981). Pea (1993, referring to Barthes, 1972) discusses how tools can become so much a part of our daily lives that we often no longer notice them: "turned from history into nature, they are invisible, un-'remarkable' aspects of our experiential world" (p. 53).

Significantly, then, tools also include intangible culturally constructed devices such as routines, strategies, or constructs which, despite lacking any material form, nonetheless mediate social activity. Indeed, Vygotsky (1981) drew a special distinction between cultural artefacts that with physical, material properties ("tools"), with those that were psychological or symbolic in nature ("signs"). Of these, Vygotsky described language as having the most powerful mediatory properties of all, and includes

> various systems for counting; mnemonic techniques; algebraic symbol systems; works of art; writing; schemes, diagrams, maps, and mechanical drawings; all sorts of conventional signs; etc." (p. 137).

Activity

Although the focus of Vygotsky's own work was the role of mediatory tools (and primarily the "sign," and word meaning) in the development of higher psychological functions in children, his contemporary Leontiev (1981) later expanded Vygotsky's unit of analysis (the tool) to be the activity within which tools were being used. There are a host of "sociocultural" reasons for this(!), least of which was the suppression of Vygotsky's work under Stalin for being too individualistic in focus, and was reformulated to be more collective in nature (Kozulin, 1998).

Leontiev's extension of Vygotsky's work is the basis for what is now referred to as "activity theory", although I would concur with Thorne's (2004, p. 53) observation that it is perhaps better understood as less of a "theory" per se, than a conceptual "framework" for analysing human activity from a Vygotskian sociocultural perspective. Indeed, Engeström's (1987, p. 41) more recent reconceptualisation of the theory positions Vygotsky's understanding of activity (i.e., the tool-mediated relationship between subject and object) at the core of an "activity system," in which the subject-tool-object relationship exists within a dynamic set of social and cultural relations, thus acknowledging the rules, rights and responsibilities, and the community of which the subject, tool, and object relationship is part:
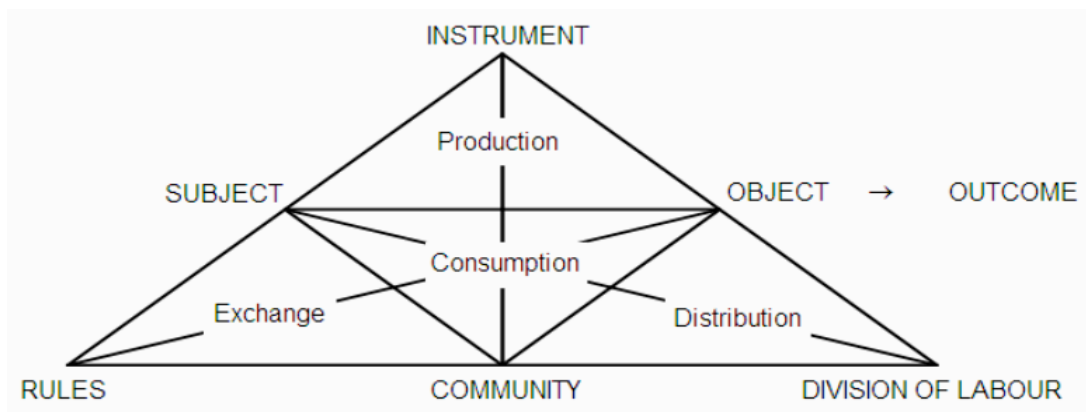
Figure 2: The structure of human activity (Engeström, 1987, p. 41)

Sociocultural *activity* can therefore be understood as the resultant combination of various social and cultural elements (i.e., rules, tools, etc) that come together having pre-existing "histories" of their own. Since these histories continue to influence, shape, and alter the nature of activity as it unfolds in practice, any analysis of concrete, observable activity as it exists now, in the present, can only be understood in relation to its origins. To take even a simple example such as a child (the subject) learning new words (his/her object) using flashcards (a tool), for instance, this activity would have its genesis in, and continue to be bound by, cultural-historic influences that include, among other things, the societal expectations of schools to test students, the child's physical environment that allows him or her access to the materials to make and use flashcards, and even the child's own personal history and upbringing (as the subject of that system) which has instilled in him or her the self-discipline to sit down, focus, and commit those words to memory.

By emphasising historicity within his sociocultural theory of human development, we return to Vygotsky's aim with his genetic method, and his rejection of the then dominant descriptive-analytic approach within psychology at the time. For Vygotsky, "behaviour can only be understood as the history of behaviour" (Blonsky cited in Vygotsky 1994, p. 70), and this, he himself asserts, remains the "cardinal principle of the whole method" (p. 70; see also Vygostky, 1978, p. 65).

Historicity

In terms of historicity, Vygotsky proposed four levels of genetic analysis according to their relationship with physical time: the phylogenetic, cultural-historic, ontogenetic, and microgenetic.

Phylogenetic analysis is concerned with human development across the course of natural evolution (i.e., humankind as a biological species), while the *cultural-historic* domain is concerned with the development of the "external" (i.e., social and cultural) world within which human relations exist and unfold. Although Vygotsky's conceptualisation of "culture" is complex (Wertsch & Tulviste, 1992), he includes at the most fundamental level the values and attitudes of any one generational group in time, *together with* the tools, signs, and artefacts through which they regulate and alter their world, and, by implication, share and construct common understandings. The cultural-historic level of analysis is therefore concerned with how tools and other

mediatory artefacts have come to "landscape" the broader sociocultural domain for human activity.

To return to the point with which I began in describing sociocultural theory – the convergence of these two broader lines of development: humans as natural biological entities (phylogenesis), and the sociocultural context within which they exist (cultural-historic) – we have the basis for *ontogenetic* development, or the development of the individual subject across a single lifespan. The final domain, *microgenesis*, refers to the ongoing and moment-by-moment fragmentary instances of concrete, practical activity that takes place as the (ontogenetic) human subject (i.e., as a biological entity with his or her own personal history) interacts with the broader (cultural-historic) domain around him or her.

Cole and Engeström (1993, p. 20) illustrate the interrelationship between each of these genetic domains in Figure 3 below, with the ellipse highlighting the nestedness of the different domains as one unified "whole" at any specific point in time:
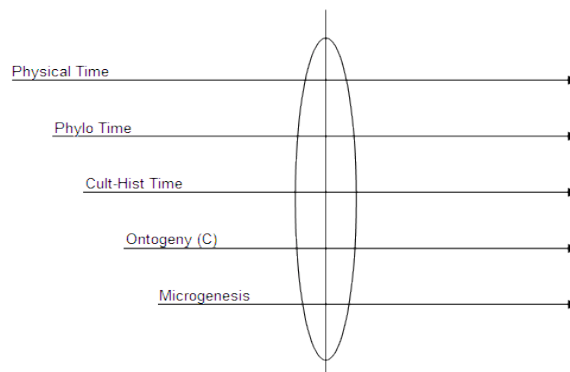

Figure 3: Domains of genetic analysis (Cole & Engeström, 1993, p. 20)

By approaching the study of human activity from a Vygotskian genetic perspective, we therefore have the basic foundation for a broader meta-theoretical framework to explicate the interrelationship between concrete, practical activity and the broader cultural-historic domain from which that activity has emerged.

Example

To give one very brief example, in my own work I focus on teachers' professional knowledge, which I could theoretically conceptualise as:
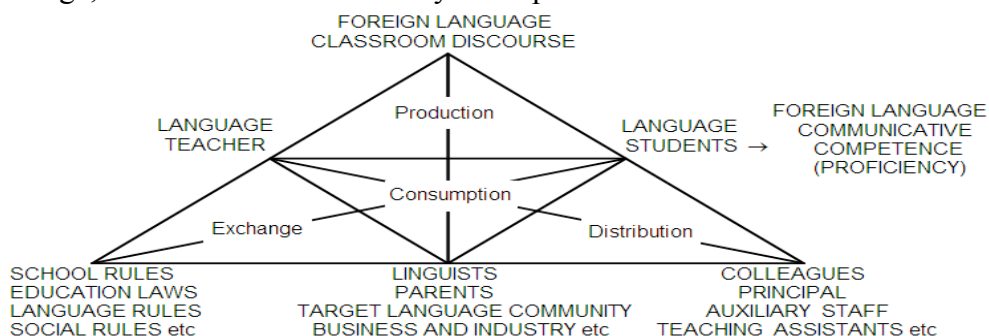

Figure 4: Theoretical model of language teacher activity as a system
(Cross, 2006, p. 100)

Methodologically, this requires a case study approach in which the "subject" becomes central. The activity or "system" becomes my unit of analysis, and my intent is to understand who the teacher is, how they learn, how they think, how they behave, which is all interconnected within the notion of sociocultural activity. Teacher thinking, being, and doing can therefore not be separated, and nor can they be separated from that context within which it is being practiced, applied, and "being" in *that* time, or from the past. It therefore also requires data on the subject, to understand their ontogenesis and what they bring to the activity:

Table 1
Example domains of genetic analysis with data

Domain	Principal types of data	Key examples
Microgenetic	Teacher (in) practice	• Transcripts of stimulated recall of what had just taken place during a lesson, with a focus on their understanding and interpretation of what had happened from their perspective as teacher(-subject)
Ontogentic	Teacher background	• Lesson plans/notes • Teacher interview • Teacher narratives

It also requires, however, an understanding of the cultural-historic domain within which the activity unfolds, and the milieu from which the present activity emerges. It is at this point, though, that I have found the theory "weak" – not lacking, as I believe there is a place for it, but an aspect of sociocultural theory as a body of work that has had very little attention drawn to it thus far: the cultural-historic domain, and the notion of policy in shaping different types of practice. One reason for this is because different types of mediatory tools will have different types of influence and importance upon different types of activity. However, for much of our work involving the social sciences – in which we focus on "public goods," such as education – I would argue that policy is a significant mediatory tool within these forms of activity can be ignored.

To return to the reason for why policy matters in the first place, when we consider historicity and the impact of tools we see that "both those present to the senses [i.e., the concrete, material] and those of prior human generations [i.e., the social, cultural], play a crucial role in the formation of human cognitive processes [and, by extension, activity]" (Cole & Engeström, 1993, p. 6). As Cole and Engeström point out elsewhere, "the book remembers for the social group" (Münsterberg, 1914 in Cole & Engeström, 1993, p. 4) and, as I would argue, so does policy: the decisions and decrees made by those in authority in response to societal expectations about education, teachers, schools, and curriculum.

Policy

This has led me to focus on the concept of "policy-as-tool" (Cross, 2009, p. 28) within my own work, and the relationship that has with teachers' professional knowledge and practice within education. Very briefly, I began to see the importance of policy in doing my own research with teachers, and the limitations of making sense of the activity of teaching without appreciating the role of the policy as mediatory tool in how teachers made sense of their own roles and work: policy plays a role in mediating "what it means to be a teacher," and influences, shapes, and legitimates what knowledge is "valued," and what practices are seen as "right.".

Moreover, a sociocultural theoretical perspective on policy offers a way of transcending the traditional dichotomy within policy sociological analyses by unifying policy as it is exists at a broader cultural-historic level (i.e., "macro" policy analyses) with its role in mediating concrete instances of microgenetic activity as it unfolds between individuals (i.e., "micro" policy analyses) (Cross, 2009).

I therefore see policies as a key sociocultural "tool" that mediate the genesis of teacher activity within the cultural–historic domain; that is, how society views the value, nature, and expectations of education, schooling, and languages. Here I draw on Trevor Gale's (1999) notion of "policy as ideology" which itself is an extension of Ball's (1994) idea of "policy as text" and "discourse" to understand this idea of policy as an artifact of wider social and cultural practices further.

While acknowledging that policies are represented in certain ways as text, and interpreted in certain ways as practice, Gale's point is that "policies are 'ideological and political artifacts which have been constructed within a particular historical and political context' (Burton & Weiner, 1990, p. 205)" (p. 399). As Ball (1990) elaborates elsewhere, policies represent attempts to influence:

> The way things could or should be—which rest upon, derive from, statements about the world—about the way things are. They are intended to bring about idealised solutions to diagnosed problems. Policies embody claims to speak with authority, they legitimate and initiate practices in the world, and they privilege certain visions and interests. (p. 22)

This is not to say that policy dictates teacher practice, but reflecting Vygotsky's own view of the dialectic relationship between tools and social activity, the idea of policy-as-sociocultural-tool is best understood as having "*both* possibilities *and* constraints, contradictions *and* spaces. The reality of policy in practice depends upon the compromises and accommodations to these in particular settings" (Bowe, Ball, & Gold, 1992, p. 15, emphasis added). To go back to the earlier discussion of the "ontogenetic subject," their own experiences, background, beliefs, personal knowledge and histories act as a further mediatory influence on the relationship between microgenetic activity and the broader cultural–historic context; in other words, how they make sense of it all in terms of decisions about how they then accept, resist, and renegotiate with that system.

The idea of policy, and policy's role as tool is therefore ultimately contingent upon the way the subject of any one activity makes sense of that policy within their own particular social, cultural, and historic domain of practice. As a result, teacher agency therefore exists (and is acknowledged) in the dialectic between broader social

structures (created through cultural–historic tools [i.e., policy]) and the subject (i.e., the ontogenetic "person", in terms of their own personal background, values, and understandings), with "neither subject (human agent) nor object ('society', or social institutions) . . . having primacy [since] each is constituted in and through recurrent practices [i.e., activity]" (Giddens, 1982, p. 8, emphasis in original).

Conclusion

This has been a brief and highly truncated discussion of the perspective and ideas I've been drawn to as a researcher that have helped me make sense of understanding the world, and the implications they carry for how I think about "doing research." It is a snapshot of some thinking and writing I have been ruminating over for a number of years now (e.g., Cross, 2006, 2009, 2010; Cross & Gearon, 2007), and I hope it has maintained some sense of coherence in how the ideas hold together as a whole. There is more to be said, especially on the ideas of contradictions and tensions, and the critical, transformative work of educational research and the role of sociocultural theory within this at both theoretical and applied levels of engagement.

However, as a set of foundation ideas, these have been concepts that I've found helpful for thinking about the world and doing research that I can't help but continue to reflect on and tweak, refine, and extend as my own work and interests continue to develop into the future. By the same token, though, precisely because they are basic, cornerstone ideas, I don't expect they will shift significantly in their fundamental substance, and I find them a constant in the evolution of work upon which they're based, and a way of coming back to, and making ongoing sense of, my work as a researcher over time. I hope that they offer others at least some similar potential as a basis for thinking about your own approach to research and method.

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