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The Palimpsest: A Conceptual Framework for Understanding Teacher Beliefs

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Abstract

Our professional lives unfold and continuously oscillate between the known and the unknown. The unknown is fraught with both danger and promise. The known, in the form of our beliefs and knowledge, protects us from contamination with the unknown. But the known also stifles us; our assimilated and ingrained beliefs, knowledge, and underlying assumptions pull us away from exploration of the new or anomalous and from creative action. When we encounter the unknown—when something unexpected happens to us or when we encounter some new theory or practice—we suddenly find ourselves in a strange situation where our traditional knowledge is non-functional. Our experiences, by analogy, provoke the immediate responses that we instinctively choose when faced with new and unique ideas and situations. We impose existing schemes, we rely and depend on the familiar, as we weigh the new with the old. We recreate that which is absent. We compare new situations with what we already believe. We pattern from the past. Thus, as we seek to deal with new practices, theories, and research, we are as McLuhan (1964) so articulately mused, "dragged into the future" while "looking into a rear—view mirror".

Clearly, such human tendencies create dilemmas. To move forward, we must have the ability and will to transform and sometimes detach ourselves from the present and past beliefs that dictate the ways that we think, feel and practice. Most importantly, we must have the ability to change or accommodate our ways of thinking to suit the world instead of changing our representation of the world to assimilate it to our ways of thinking. In the best of circumstances we are capable of exploring the unknown and enlarging our field of knowledge, finding some action that is practical and favorable. In the worst of circumstances, we are caught in the chaos that defines the unknown. Consequently then, our beliefs are in a state of flux, not inevitable and final products but rather, representing possible realizations of nearly infinite possibilities.
Purpose

The purpose of this study is to examine the dynamic role that beliefs play in teacher thinking and problem-solving. Specifically, we will examine the impact of teacher beliefs on the arguments that they mount for or against certain decisions of practice. While many researchers have identified the importance of belief formation and belief transformation in the preparation and support of effective educators (citations), we will argue that efforts must go deeper. Precisely, we will argue that when teachers explicitly recognize the processes and influences of belief formation and transformation, they approach their professional identities and their classroom practice in significantly altered ways. Our purpose, therefore, is not to quantify, code, or nominalize teacher beliefs, but rather to provide a thick description of teacher beliefs over time as teachers reveal, challenge, and reconcile them in order to reconcile the known with the unknown—the new and unexpected.

To support our arguments we examine teacher monologues, dialogues, and multilogues captured in an online learning environment known as Teaching as Intentional Learning (TIL) (Moss, 1998). In doing so we recognize and discuss the uniqueness of online worlds in general and TIL’s online world in particular. As Shulman (1986) reminds us the worlds experienced by teachers may each be different. The different worlds, however, are all complex worlds. What teachers believe about these worlds is equally complex and often hidden—not conscious but tacit. To effectively ‘observe’ these multiple, complex and hidden worlds we became a part of them. Thus, we joined in discussions with participants in order to know and understand these worlds.

The Elusive Concept of Teacher Beliefs

Pintrich (1990) predicted that beliefs would eventually prove to be the most valuable psychological construct for teacher education. In fact, the more one studies teacher beliefs, the more strongly one suspects that this piebald and patched form of personal knowledge lies at the very heart of teaching (Kagan, 1992) and may be the best indicator of the decisions that teachers will make in their practice (Rokeach, 1968). Even though beliefs may be central to understanding the practice of individual and groups of teachers, investigations of teacher beliefs have yielded contradictory understandings. One thing that is certain, the ways that researchers define teacher beliefs colors not only the educational research that they pursue, but also shapes the conclusions that they draw from their findings. Recognizing the influence of researchers’ definitions of teacher beliefs on their interpretations of their findings is important to unraveling what the literature tells us so far. Specifically, it is important to note that while educational researchers agree that the concept of teacher beliefs eludes simple definitions (Pajares, 1992; Richardson, 1996), their quests to define the concept produce several common threads in the literature focused on understanding and defining teacher beliefs.

First, there are those who ascribe the concept’s elusive nature in part to the fact that teachers hold varying beliefs. For instance, teacher beliefs can be separated into beliefs about the nature of learners and learning, the characteristics and purposes of teaching, the attributes of the subjects they teach, and the ways that educators relate to their roles as teachers (Calderhead, 1996). This thread of research posits that the range and variety of teacher beliefs may contribute to the range and variety of definitions for the concept (Pajares, 1992; Richardson, 1996). For example, Goodenough (1963) defined beliefs as propositions or understandings that are considered to be valid and are “accepted as guides for assessing the future, cited in support of decisions, or are referred to in passing judgment on
the behavior of others” (p. 151). Brown and Cooney (1982) viewed beliefs as the main determinants of behavior and noted that they were both time and context specific. Others, like Sigel (1985), saw beliefs as mental constructions of experience that drive behavior and that are condensed and integrated into schema or concepts that are held to be true.

Second, the tenacity of teachers’ beliefs has caused researchers to marvel at the fact that beliefs are rarely influenced by reading and applying the findings of educational research (Hall & Loucks, 1982). Kagan (1992) notes that this tendency for teacher beliefs to win out over academic theory or research—based knowledge as guides for classroom practice, exits because teacher beliefs form a particularly provocative form or personal knowledge that grows richer and more coherent as a teacher's experience in classrooms grows. Thus, teachers form a highly personalized pedagogy or belief system that actually constrains their perception, judgment, and behavior. Tackling the question of why teachers favor personal beliefs over theory and research, Nespor (1987) proposed that “the contexts and environments within which teachers work, and many of the problems they encounter, are ill—defined and deeply entangled…[therefore] beliefs are peculiarly suited for making sense of such contexts” (p. 324).

A third thread in the literature, emerges from studies that focus on understanding teacher beliefs in order to promote specific teacher reform processes. These studies often categorize teacher beliefs into domain areas such as beliefs about teaching math or reading and propose a “this begets that” framework for understanding beliefs. For instance, some researchers have proposed that a change in practice is the precursor to a change in belief (Guskey, 1986; Mevarech, 1995; Prawat, 1992; Sparks, 1988). Others contend the opposite—that changes in beliefs precede changes in classroom practice (Bullough & Knowles, 1991). Still others adopt a compromise perspective noting that changes in beliefs and practice happen in reciprocal ways (Goffman, 1973; Peterman, 1993; Richardson & Anders, 1994; Richardson & Placier, 2001).

A fourth common thread in defining teacher beliefs discusses the relationships between teachers’ belief statements and their actual educational practice. Some studies have uncovered important consistencies between the beliefs that teachers hold and the actions that can be observed in their classrooms (Cornett et. al., 1990; Wilson & Wineburg, 1991). These studies provide evidence that teacher beliefs and teaching practices often go hand—in—hand. Yet, other studies expose huge discrepancies between what teachers espouse as their beliefs and what they actually practice in their classrooms (e.g. Galton, Simon, & Croll, 1980). These studies conclude that teachers often embody conflicting beliefs and find themselves using contradictory ideologies to justify incompatible actions. This dilemma then, compounds teachers’ struggles to understand and justify their decisions of practice (Cornett, 1990).

In a final thread, researchers argue that the greatest challenge to defining teacher beliefs results from the difficulties inherent in accessing those beliefs. The primary source of the difficulty is that teacher beliefs cannot be accurately inferred from teacher behavior since teachers often display similar practices for very different reasons (Kagan, 1992). Noting this discrepancy, Kagan cautions against the use of direct questions such as "What is your philosophy of teaching?" to elicit statements of teacher beliefs. She characterizes direct questioning methods as "ineffective or counterproductive" (p. 62). Others extend Kagan’s concern and argue that Likert—scales and forced choice options are equally counterproductive and likely to produce inaccurate representations of teacher beliefs. Munby (1984) explains it this way:
While the items of the instrument generate a response, they may be doing so not because the teacher would necessarily have thought of the belief represented by the items but because the test developer did. In other words, the scores represent what the teacher says is believed when he or she is physically presented with various beliefs of interest to the researcher (and possibly identified by many other teachers), and these do not necessarily correspond to the beliefs which are paramount to the individual teacher's handling of the immediate and unique professional environment. (p.29)

Even in an interview situation accessing teacher beliefs can tricky. The tacit nature of beliefs and their interrelationships result in teachers being unable to consciously access them (Woods, 1996). Furthermore, teachers often respond to questions about generalized beliefs according to what “they would like to believe, or would like to show they believe in the interview context. When a belief or assumption is articulated in the abstract, as a response to an abstract question, there is a much greater chance that it will tend more towards what is expected in the interview situation than what is actually held in the teaching situation and actually influences teaching practices” (p.27).

**Beliefs and Change**

Clearly, the conflicting nature of teacher belief statements and the difficulties inherent in accessing those statements, compounded attempts to explain how beliefs function over time as they change, or in other cases, resist change. This resistance to change may be attributed what Pajares (1992) characterizes as an emotional dimension that make teacher beliefs highly resistant to change. “People grow comfortable with their beliefs, and these beliefs become their ‘self’ so that individuals come to be identified and understood by the very nature of the beliefs and the habits that they own.” (p. 317).

This habitual quality is due in large part to the fact that teacher beliefs are highly intertwined with other central beliefs. The way that professional beliefs and central beliefs connect affects the very ease with which change in beliefs might occur. If the connections to central beliefs are dense, then teacher beliefs could be difficult to change. On the other hand, if the connections are less dense, then the process of change is not as complex (Woods, 1996).

Examining beliefs in this way—the connectivity of professional beliefs with central beliefs—implies that for beliefs to change there must be a process of deconstruction. In other words, some beliefs must be demolished so that another set of beliefs can be constructed. This process can "lead to periods of disorientation, frustration, even pain" (Woods, 1996, p. 293). What is particularly interesting about Woods’ notion of deconstruction is that since each belief is part of an interwoven network which includes many other beliefs, it is nearly impossible for teachers to simply change one belief by itself at will. This near impossibility adds to the discomfort that teachers often feel during programs of imposed changes.

Moreover, during periods of mandated change, the dissonance that teachers experience often can be attributed to the cultural norms present in the teaching profession as a whole and in individual
educational settings such as districts, buildings, and grade levels. When teachers try to alter their practices and beliefs, the cultural norms present in those settings continue to imprison their thinking. That is to say, even when the most innovative teachers engage in changing their practices they smack up against the cultural norms like “lecture—based instruction, subject—centered curriculum, and measurement—driven accountability” (Dwyer, Ringstaff, & Sandholtz. 1992, p.2). In this way, many teachers who are grappling with changes in thinking, understanding and practice are "held in check by the principles of 19th century instruction" (Dwyer, Ringstaff, & Sandholtz, 1991, p. 51).

Clearly, efforts to understand the changing nature of teacher beliefs have been hampered by the methods used to define and access those beliefs—methods that are both static and constraining. To address these limitations we propose an interpretive lens that might provide a more semiotic understanding of the processes inherent in belief formation, transformation, and transmission. This conceptual tool—the “palimpsest”—anchors our study into the dynamics of teacher beliefs. We illustrate the utility of this conceptual framework through statements captured, over time, in an online professional learning environment known as Teaching as Intentional Learning (TIL) (Moss, 1998). Both the interpretive lens of teacher beliefs as palimpsests and the advantages of accessing those beliefs through online discourse provide a rich and unique context for the study. We will discuss the interpretive lens and advantages inherent in capturing teacher beliefs in the online learning environment in turn.

Teacher Beliefs as Palimpsests

We are not the first to employ the figure of the palimpsest to examine dynamic change (e.g., Bey, 1984; Birkets, 1994; Borenstein, 1993; Joyce, 1995). Researchers and scholars have applied this metaphor across varied domains such as literature, music, art, and religion, to both focus and illuminate their thinking.

A palimpsest is literally a manuscript which has been "scraped again". The word comes from the Greek palin "once again", and psaein "scrape". A palimpsest was often made of parchment. Because the parchment was difficult to make yet strong enough to withstand alteration, sheets of parchment were commonly reused. In most instances the parchment would be washed and/or scraped and resurfaced, then overwritten, often at right angles to the original writing and often more than once. There are, however, many instances of manuscripts that were overwritten without being cleaned resulting in layers of underwriting. The under—writing of palimpsests is, of course, often difficult to read because although the manuscript was altered it often bears traces of its previous forms. In fact it is sometimes impossible to say which layer was first inscribed. In all cases, the connections between layers of the palimpsest were not sequential in time and juxtaposed in space. That is to say, words and letters of one layer often blot out letters and words in a sub—layer, or vice versa. In some parts of the palimpsest overwriting might leave blank areas with no markings at all.

The palimpsest also introduces the idea of erasure as part of the layering process and provides a way to think about the dynamics of change over time. A palimpsest conserves traces of previous text while remaining receptive for new text. In fact, there can be a fluid relationship between the layers. Texts and erasures are superimposed to bring about other texts or erasures. A new erasure creates text; a new text creates erasure. In other words, the composite meaning of a palimpsest is radically different than the meaning of any individual layer. This is a critical attribute of a palimpsest and one that has particular utility for illuminating the concept of teacher beliefs. What is destroyed in the
context of the palimpsest is the idea that a belief is a final or inevitable product. The metaphor of the palimpsest helps us to realize that a belief is one possible realization of infinite possibilities that are created every time a teacher makes a decision of practice.

For these reasons and many more, reading a palimpsest is not done instantaneously or simply because palimpsests are not immediate or straightforward creations. In fact, the very nature of the palimpsest forces us to approach belief development in a very different way. In a palimpsest it would be impossible to say that one layer "developed" into another layer or even to discover which layer came first. What is important then, is not so much deciding the way and the sequence by which the layers developed, but rather use investigations of development as only one possible structure to aid understanding. We employ the notion of the palimpsest, then, to stress both the multi—layered character of teacher beliefs and the generative and complex process of their formation, transformation, and cultural transmission in a community of practice. Furthermore, the conceptual tool of the palimpsests helps us understand the limitations inherent in accessing teacher beliefs in isolated and artificial ways.

Yet for the conceptual tool of the palimpsest to be useful, it is important to understand the difference between a manuscript palimpsest and a theory palimpsest. Hakim Bey (1984) tropes the term to explain the ways that theories emerge and change:

"The difference between a manuscript palimpsest and a theory—palimpsest is that the latter remains unfixed. It can be re—written—re—inscribed— with each new layer of accretion. And all the layers are transparent, translucent, except where clusters of inscription block the cabalistic light — — (sort of like a stack of animation gels). All the layers are "present" on the surface of the palimpsest—but their development (including dialectical development) has become "invisible" and perhaps "meaningless".

In other words, the palimpsest contains the natural, messy, and conflicted history of the beliefs that teachers hold. It represents a crossroad between nature and culture, conception and production, imagination and relationships, and reality and ideality. Overtime, it is inscribed in a layered subtext—ribbed and cross—ribbed with beliefs, values, and convictions that have solidified over the years—that grows from a long history of intimate engagement with the life world. What shines through are not just past versions of the life world, but more importantly, potential alternative views. Therefore, all the layers are important and all layers or parts of layers can resurface or be hidden, or in some cases erased completely.

Learning from the Palimpsests of Online Worlds

When we approach teacher beliefs as palimpsests we are compelled to understand their natural history. A palimpsest and its natural history are inseparable. To “read” a palimpsest we must read its layers and sub—layers, for they tell the story not only of the palimpsests’ creation but of the community’s creations as well—its evolution over time and the experiences and lifeworlds that influenced that creation.
Communities of practice that exist as online worlds—professional learning environments that support teacher inquiry and capture teacher discourse—provide particular utility for exploring the concept of teachers beliefs as palimpsests. Far removed from the analogy of professional development as an “event we attend”, the most effective online communities of professional learning engage teachers in problem-solving, inquiry, critical thinking, risk—taking, responsibility, connectedness to ideas and people, shared vision and purpose, collaboration, networking, and continuous improvement. What’s more, these online environments electronically capture teacher discourse in authentic ways through monologues, dialogues, and multilogues (Shank date). This growing record of discourse, Moss and Shank (in press) concluded, documents the natural histories of these communities of practice and of the individuals within those communities.

To explore a natural history generated and captured in an online world, we must develop a clear understanding of the attributes of that world—the online community of practice and the nature of the discourse in that community—if we are to understand the influence of those attributes on the beliefs and identities of the community members.

**Belief Formation in an Online Community of Practice.**

What does it mean to learn as a function of membership in a community of practice? First and foremost, requires an acknowledgement that individuals do not learn skills or develop understandings in a social vacuum. Rather, they develop “an identity as a member of a community and [become] knowledgeable skillful [as] part of the same processes, with the former motivating, shaping, and giving meaning to the latter, which it subsumes” (Lave, 1993, p. 65). In other words, learning in a community of practice involves connections—connections among learners, connections between knowing and doing, and connections between what is learned and the needs of the learner (Lave, 1997; Lemke, 1997). These connections can be clarified through the lens of activity theory (e.g., Engestrom, 1987, 1993; Leont’ev, 1974, 1981, 1989; Nardi, 1996; Vygotsky, 1978).

From the perspective of activity theory, “activity” is not the mere description of inert “doing”; rather the notion of activity centers on action that is contextualized in a certain culture. In fact, when Lave and Wenger (1989, 1991) used the term “communities of practice” they did so to highlight the role that activity within a learning community plays in connecting members of the community to each other and in building a culture that validates the effectiveness of individual practices. The idea is that learning is constituted through the sharing of purposeful, patterned activity, and that it stresses practice and community equally (Lave & Wenger, 1989). Through this theoretical perspective, knowledge is seen as the practical capability for doing and making; and, meaning is seen as the construction of a social unit that shares a stake in a common situation. As a consequence, learning is seen as a capability for increased participation in communally experienced situations—a dual affair of constructing identity and constructing understanding (Wenger, 1990).

Therefore, a community of practice generates both a history and cultural identity that influences and is influenced by the beliefs that individuals within that community hold. That history and those beliefs result from learning that is situated in the context of the community. Specifically, the learning occurs as members of the community engage in activities within a certain environment bound by social factors in that environment (Brown, Collins, and Duguid, 1989; Derry and Lesgold, 1996; Greeno, 1989, 1998; Greeno, Moore, and Smith, 1993; Lave and Wenger, 1991; Moss, 2002; Rogoff, 1990).
Clearly, the conceptual tool of the palimpsest, and the discourse generated and captured in an online community of practice provide a unique vantage point. That vantage point, however, requires that we shift our unit of analysis from the individual to the community and from prompted and isolated statements of beliefs to authentic discourse. That is because the conceptual tool of the palimpsest represents the influence of the community of practice, the influence of connected discourse of members of the community, and the evolution of beliefs overtime. The online learning community allows us to capture and investigate that discourse.

The Role of Context

Part of what shapes a community of practice—and therefore the context of teachers’ beliefs—is the learning environment itself. Wilson (1996) describes a learning environment as "a place where people can draw upon resources to make sense out of things and construct meaningful solutions to problems" (p.3). Often traditional concepts of the "classroom" as the setting for learning clouds understanding of online learning environments (OLEs). The term "virtual classroom" suggests that the new environments for learning must, by necessity, be modeled from the "real world" counterpart. As this study aims to illustrate, the virtual environment of a community of practice on the World Wide Web stands in stark contrast to the four walled classroom or the geographically defined district and, as such, has no equivalent in the "real world" of professional learning. A primary factor in the stark contrast to real world and face—to—face communities of practice is the nature of online discourse and its influence on the beliefs and identities of the members of that community.

In fact, researchers have posited that language and specifically computer mediated communication (CMC) has the ability to restructure consciousness (McLuhan, 1965; McLuhan & Fiore, 1967; Moss & Shank, in press; Ong, 1982; Shank, 1993; Shank & Cunningham, 1996). Because of this, discourse in an online community of practice is an important and influential context that cannot be ignored and must be mined for its influence on both individual and community beliefs and identities. While CMC is based on text driven interaction it exhibits a surprising oral quality that recreates the immediacy of pre—literate cultures while adding on space and time dependence (December, 1993). Therefore, Moss and Shank (in press) proposed that online learning environments "create not only a culture of usage, but also an entirely new mode of social interaction and thought—a mode of communication that is neither oral nor written language, but rather a post literate technological change of language itself.”

Human communication is never one—way. It always calls for response and is shaped in its very form and content by the anticipated response (Ong, 1982). The key concept for understanding CMC as a unique postliterate form of communication is the concept of the multilogue (Moss & Shank, in press; Shank, 1993; Shank & Cunningham, 1996). Two important elements of the multilogue differentiate it from other forms of communication that is rare to find outside of multilogues. First, the threaded discussion that characterizes the multilogue allows community members to discuss issues both simultaneously and asynchronously among some or all of the community members. Even those who do not enter into the conversation with a post are privy to the entire discussion and can return to the discussion to post days or months later with the same immediacy and intimacy as those who entered the conversation when it began (Moss & Shank, in press).
These systems then are used to interpret and act upon the world. Since teacher beliefs are generally contextualized and associated with a particular situation or circumstance (Kagan, 1992), it should not surprising that systems of beliefs may contradict each other (Ennis, 1994). In fact, when we consider teacher beliefs as messy and organic structures evolving in a community of practice, it is only natural that a wide variance can be found among the beliefs of different teachers from the same community (Bussis, Chittenden, Armel, 1976).
References


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