

## Beyond Knowledge: Exploring Why Some Teachers Are More Thoughtfully Adaptive Than Others

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### **Abstract:**

As teacher educators, we have observed that knowledge alone does not lead to the kinds of thoughtful teaching we strive for. Puzzled by differences in the teaching practices of teacher candidates having similar professional knowledge, we explore what might account for these differences. We address what is necessary, beyond traditional forms of professional knowledge, to support the development of thoughtful teachers who are responsive to students and situations. We provide four perspectives, each drawn from areas in which we conduct our research, and suggest a need to move beyond knowledge in teacher education. Our aim is to explore questions about preparing thoughtful teachers and to challenge others to do the same. We postulate that self-knowledge and a sense of agency with the intent of purposefully negotiating personal and professional contexts may be as important, if not more important, than the more traditional conceptions of professional knowledge.

**Keywords:** knowledge, thoughtfully adaptive teaching, beliefs, vision, belonging, identity

### **Article:**

Teacher educators have long valued knowledge. They have written about what knowledge teachers need (Carter, 1990; Grossman, 1995; Shulman, 1986; Wilson, Shulman, & Richert, 1987), debated the role of knowledge in teaching (Hammerness, Darling-Hammond, & Bransford, 2005; Snow, Griffin, & Burns, 2005), and questioned whether any “particular bits of knowledge can necessarily help teachers simultaneously think about all of their areas of concern” (Kennedy, 2006, p. 208). Currently, various state governments are imposing more and more standards regarding what to include in course content, apparently on the assumption that good teaching is a rational and conscious application of knowledge.

Yet our experience as teacher educators who strive to develop thoughtful teachers, that is, teachers who are responsive to students and situations, suggests that knowledge typically addressed in our courses does not necessarily suffice. Not all of our teacher candidates demonstrate thoughtful teaching. Some become technically competent but not particularly responsive to students or situations, despite our best intentions and our belief that it is such responsiveness that constitutes thoughtful teaching and lies at the center of teacher effectiveness.

Puzzled by the inconsistencies we observe in our teacher candidates and the role of knowledge in this outcome, we engaged in a 3-year conversation in which we questioned whether, as teacher educators, we overlook important aspects of teaching in our concern for ensuring that teacher candidates are equipped with required content knowledge, pedagogical knowledge, and pedagogical content knowledge. If so, what is necessary beyond knowledge? This conversation became a collegial, almost philosophical, inquiry aimed at improving the experiences offered our teacher candidates. It was not intended as a study, rather as a collaborative exchange of perspectives on teacher education. As it evolved, we began to examine how our individual perspectives, theoretical or epistemological, and our various research agendas informed our understandings of teacher education and helped us think more broadly about the ways we prepared new teachers.

Ultimately we focused on four perspectives that represent our individual research areas: belief-based personal practical theories, vision, belonging, and identity. As we describe below, talking across and through these perspectives led us to the hypothesis that teacher educators must develop teachers' self-knowledge and sense of agency in addition to developing standard forms of professional knowledge. But our suggestions are tentative, and our goal is to challenge our teacher education colleagues to join us in exploring what, beyond knowledge, might help us better prepare thoughtfully adaptive teachers.

## Background

Excellent teaching is relatively rare because, as Shulman (2004) said,

After some 30 years of doing such work, I have concluded that classroom teaching . . . is perhaps the most complex, most challenging, and most demanding, subtle, nuanced and frightening activity that our species ever invented. (p. 504)

Teaching is demanding because teachers must deal with numerous forces. The situations they face are often dilemma-ridden and inherently ambiguous. For example, Kennedy (2006) described teaching as

an endeavor that requires simultaneous consideration of six different areas of concern, that strives toward ideals that are inherently contradictory, and that happens in real time where the merits of alternative courses of action must be weighed in the moment. (p. 206)

Bransford, Darling-Hammond, and LePage (2005) compared the complexity of teaching to conducting an orchestra. Like conducting,

Teaching looks simple from the perspective of students who see a person talking and listening, handing out papers, and giving assignments. Invisible in both of these performances [conducting and teaching] are the many kinds of knowledge, unseen plans, and backstage moves—the skunkworks, if you will—that allow a teacher to purposefully move a group of students from one set of understandings and skills to quite another over the space of many months. (p. 1)

Similarly, Ball and Cohen (1999) explained the complexity of teaching in terms of what they called “the particulars”—that is, “particular students interacting with particular ideas in particular circumstances” (p. 10).

In short, successful teachers must recognize that virtually every situation is different, must see multiple perspectives and imagine multiple possibilities, and must apply professional knowledge differentially. Such teachers have been described variously as “thoughtfully adaptive” (Duffy, 2002), as having “adaptive expertise” (Bransford et al., 2005), as displaying “disciplined improvisation” (Sawyer, 2004), as possessing “adaptive metacognition” (Lin, Schwartz, & Hatano, 2005), or as demonstrating “wise improvisation” (Little et al., 2007). Duffy (1997) called such teachers “entrepreneurial” because they see knowledge “as tools to be adapted, not as panaceas to be adopted” (p. 363), whereas Sawyer (2004) described them as applying knowledge in “a creative, improvisational fashion” (p. 13).

However, developing these entrepreneurial and creative characteristics in our own teacher candidates has been difficult. Even though we introduce students to similar professional knowledge of effective practice, learning theory, instructional strategies, and the like, we see them putting their knowledge to work in sharply different ways when we observe their teaching. Only some of our teachers adapt knowledge in response to students and situations in ways consistent with our intent and principles of effective teaching (Ball & Cohen, 1999; Bransford et al., 2005; Kennedy, 2006); many others implement knowledge about teaching in narrow, technical, or rigid ways.

But the problem extends beyond our teacher candidates and is exacerbated by recent school reform efforts. Narrow and rigid application of knowledge is increasingly encouraged by policy mandates such as Reading

First and No Child Left Behind that prescribe programs and practices with minimal teacher input or flexibility. This trend is cited by Olsen and Sexton (2009), who noted that current policy forces teachers into a “tightening of educational procedures, outcomes and teaching models” (p. 25); whereas others similarly cite a growing pattern of policies that restrict flexible and alternative thinking (Miller, Heafner, & Massey, 2003; Pressley, Wharton-McDonald, Hampston, & Echevarria, 1998; Smith, 1991; Watanabe, 2008). Our conversation was thus spurred by both our concerns about our own teacher candidates and by the frequently cited and broader trend to impose restrictive instructional practices through policy man-dates. The outcomes of this collaborative enterprise follow.

#### **Four Perspectives on Why Some Teachers Are More Thoughtful Than Others**

Our discussions revolved around four different epistemological or empirical traditions that reflected our individual research interests. We do not claim to be inclusive; there may well be other potentially useful perspectives. Instead, our intent was to examine what each perspective contributes to developing thoughtful teachers, to share our tentative conclusions, and to stimulate others to extend this discussion by exploring from their perspectives what, beyond knowledge, might help us better prepare thoughtfully adaptive teachers.

##### ***Perspective 1: Teachers’ Beliefs and Personal Practical Theories (PPTs)***

Few would argue that the beliefs teachers hold influence their perceptions and judgments, which in turn affect their behavior in the classroom, or that understanding the belief structures of teachers and teacher candidates is essential to improving professional preparation and teaching practices (Pajares, 1992, p. 307).

Beliefs are closely related to the study of teacher knowledge, especially practical knowledge that guides teacher behaviors (Verloop, Van Driel, & Meijer, 2001). According to Verloop et al. (2001), “In the mind of the teacher, components of knowledge, beliefs, conceptions, and intuitions are inextricably intertwined” (p. 446).

Pajares (1992) suggested that although teachers may conflate knowledge and beliefs, the distinction is that beliefs are more personal, whereas knowledge is based on objective facts agreed upon by particular social communities (Richardson, 1996, 2003). But much of what is considered professional knowledge could be categorized as belief (Kagan, 1992). In fact, Pajares claimed that attitudes, values, perceptions, theories, and images are just beliefs in disguise and that beliefs are developed through enculturation (including exposure to family and cultural influences), social interactions during one’s formal education, and schooling that takes place outside the home.

There are many different kinds of beliefs, including beliefs about knowledge (epistemology), about the performance of teachers and their students (attributions, locus of control, motivation, test anxiety), about perceptions of self (including one’s self-worth, self-concept, self-esteem, and sense of agency), and about confidence in one’s performance (self-efficacy). As Pajares (1992) noted, attitudes, values, judgments, axioms, opinions, guiding images, ideology, perceptions, conceptions, conceptual systems, dispositions, implicit theories, explicit theories, personal theories, personal practical knowledge, and perspectives are all closely related to beliefs.

Beliefs have long been studied as a crucial aspect of teacher knowledge and teacher decision making in the class-room (e.g., Borko & Putnam, 1996; Calderhead & Robson, 1991; Chant, 2002; Chant, Heafner, & Bennett, 2004; Clandinin, 1986; Kagan, 1992; Richardson & Placier, 2001). Llinares (2002) asserted that teacher candidates’ knowledge and beliefs serve two roles: They are both the lens through which teachers view learning and the focus of that learning, both the means and the ends. Beliefs, therefore, serve as a *filter* through which teachers sift knowledge gained in teacher education (Llinares, 2002; Richardson 1996, 2003) but can also be considered to be the *goal* of teacher preparation. It follows that teachers’ beliefs might cause some teachers to be more thoughtful than others. For instance, teachers may be more likely to resist being responsive to students, if they believe the curriculum is fixed, rigid, or not negotiable.

There are many ways to study beliefs including narrative, biography, life history methods, and metaphors. One major way is a process called personal theorizing (Cornett, Yeotis, & Terwilliger, 1990), which purposefully turns tacitly held beliefs into explicitly stated personal practical theories, or PPTs. Cornett (1990) defined PPTs as a systematic set of beliefs (theories) that guide teachers' actions. They are influenced by family background and past K-12 experiences as students, as well as by teacher education program requirements (Levin & He, 2008), although there is also evidence of developmentally different perspectives among teacher candidates, cooperating teachers, and teacher educators (He & Levin, 2008). Several studies indicate that PPTs guide teachers' pedagogical choices (Chant, 1999, 2002; Chant et al., 2004; Clandinin, 1986; Cornett et al., 1990; Marland, 1998; Ritchie, 1999), so helping teacher candidates uncover, explicitly state, and study the ways they enact their beliefs in practice may increase their self-knowledge and support their developing sense of agency.

Consider, for instance, the following comparison of two teachers. Teacher A and B may both enter their teacher education program believing that assessment and evaluation are the same thing and that paper-and-pencil tests are the main way teachers determine what students know. During their teacher education program, both Teacher A and B are taught that teachers should use a variety of formative and summative assessments to determine what their students are learning, that assessments should be used as a source for planning future lessons, and that assessments can and should be embedded in authentic learning activities. Teacher A finds herself doing field experiences in classrooms that use traditional quizzes and tests given only at the end of a unit of study and does not find any encouragement for using formative assessments to check for understanding, for planning future lessons, or for trying out performance-based assessments. However, Teacher B finds herself in classrooms that use a variety of formative assessment practices; sees a number of different ways teachers can check for understanding so they can make adjustments to their teaching plans; and also sees students being given choices for completing different kinds of authentic, performance-based activities that are used for evaluating their learning. During the personal theorizing process, Teacher A expresses her belief in the form of a PPT that states, "Evaluation is important for learning what students know and helping the teacher determine who needs further teaching," whereas Teacher B expresses her PPT as "Careful planning for implementing a variety of authentic and varied assessments, both informally and formally, is essential in adjusting the teaching and learning process for children."

As these two examples illustrate, teacher candidates do not always enact their PPTs in ways that are consistent with knowledge provided in their teacher education courses (Stein, 2008). Because a personal theorizing process allows teachers to make their beliefs explicit and, therefore, available for conscious examination and action, PPTs may help us better understand why some teachers are more responsive to students and situations whereas others are not.

### *Perspective 2: Vision*

Vision is a teacher's personal commitment to seek outcomes beyond the usual curricular requirements. Though rooted in beliefs or theories about what teachers envisage for their students, vision is different from beliefs and theories because it is a teacher's personal commitment to inspire children in ways that tend to be more morally than cognitively based.

The notion of vision is not new. It has deep philosophical roots in idealism and is often invoked outside educational circles. In business, vision is often thought of as the image of a desired future state of an organization or corporation. For instance, Collins and Porras (1991), writing about successful companies, described vision as a "core identity" that consists of values and purpose; and business leaders such as Kouzes and Posner (1999) cited vision as the source of direction. Vision is also embraced as a guide to direction and decision making in Warren's (2002) best-selling *The Purpose Driven Life*, which posits that to accomplish anything you must first have a mission, a goal, a hope, a vision. Hence, vision is seen as a broadly applicable ideal.

Like teacher beliefs, vision has a long history in education (see, for instance, Feiman-Nemser, 2001; Garrison, 1997; Hight, 1950; Lampert, 2001; Pullias & Young, 1968), and has recently become the subject of empirical

study (see, for instance, Duffy, 2005; Hammerness, 2006; Turner, 2007). However, different educators talk about vision in slightly different ways. Hammerness (2006) thinks of vision as the teacher's "image of ideal classroom practice"—what the classroom environment will be, what her or his role will be, and so on; Shulman and Shulman (2004) described it as images of particular learning activities that represent how the teacher will teach; Kennedy (2006) similarly sees it as a strong sense of purpose, direction, and momentum, but associates it with envisioning a lesson before enacting it; and Duffy (2005) sees it as the teacher's ultimate goal for what her or his students will become as adults.

Despite these differences, however, vision encompasses a common theme. All versions feature the teacher's personal self-understanding about a commitment to extended outcomes. This emphasis is reflected in Greene's (1991) description of "personal reality," in Rosaen and Schram's (1998) description of "the autonomous self," in Corno's (2004) description of vision as an "internal guiding system," and in the description of vision as a "moral compass" (Duffy, 2005). In this sense, a vision makes teachers' ultimate ideals conscious.

But how does having a vision explain why some teachers are thoughtfully adaptive and other teachers are less so? The assumption is that commitment to a vision disposes teachers to do more than dispense standard curricular content. That is, while engaged in teaching the "visible" curriculum of reading, math, social studies, science and so on, they also commit to inspiring students to become something special. They focus on particular images of how to use the mind or on particular aspects of morality or on particular understandings, dispositions, or values. For instance, one teacher may envision her students as becoming adults who promote the ethic of caring, so when teaching the visible curriculum, she looks for ways to incorporate ethics and caring into her daily instruction; another may envision students as becoming adults who use critical thinking to solve problems, so she looks for opportunities to couch curricular learning in problems requiring critical thought; another might envision a commitment to cultural understanding; another to community and collaboration; and so on. In short, vision encourages a teacher to look for ways to imbue day-to-day teaching with activity reflective of a unique contribution. It provides a platform from which teachers initiate adaptations such as "teachable moments" and may be the source of the persistence, perseverance, and agency that fuel teachers' efforts to resist restrictive policy mandates.

Consider, for instance, the following example of a first-grade teacher. Her vision—that is, her deeper reason for teaching—was for her students to embrace a sense of fair play and equity in their interpersonal lives. When beginning a guided reading lesson, her goal was simply to develop reading skill. But when her students looked at the pictures of the main character and said it was a boy because the character had short hair and was dressed in jeans, the teacher saw an opportunity to develop her vision for teaching. She had them read the first page, where (as she knew they would) they discovered that the main character's name was Jennifer. At this point, the teacher spontaneously inserted a minilesson on the danger of stereotyping, offering varying examples until the students demonstrated understanding of her goals and objectives. She could have settled for routine implementation of guided reading. But her vision for how she wanted to touch the future through her students drove her to look for opportunities that went beyond standard reading goals and objectives.

In sum, teachers with a vision may strive to be more thoughtfully adaptive because they have a driving personal commitment to impart more than just what is required. In this sense, vision may take teachers beyond knowledge, instilling in them a commitment to inspire students to be something more than just academically competent. As Shulman (2004) suggested, visioning may be the "missing construct" in identifying high-quality teachers.

### *Perspective 3: Belonging*

Personal theorizing and vision do not occur in a vacuum. The enactment of these personal and professional perspectives takes place in physical, local spaces in the actual classrooms, schools, communities, and systems in which teaching occurs. Therefore, as teachers attempt to implement the particularities of teaching and their individual perspectives (i.e., their beliefs/PPTs and vision), they are influenced by situational value systems. The engagement necessary for thoughtful teaching may be energized by a sense of connectedness or congruence

with a teaching context (often referred to as *belonging*); conversely, the challenges involved in enacting a personal vision or theory of teaching may be exacerbated by the sense that one does not belong within a particular teaching context (i.e., that one's personal perspective regarding teaching does not fit).

Research has consistently demonstrated that an enduring positive interaction or "fit" within a context (e.g., *belonging*; see Baumeister & Leary, 1995; Juvonen, 2006; Osterman, 2000; also *relatedness*; Connell & Wellborn, 1991; or *connectedness*; Voelkl, 1997) promotes engagement and discourages withdrawal. That is, individuals who report high levels of belonging typically demonstrate high levels of personal engagement and motivated behavior (Faircloth & Hamm, 2005; Roeser, Midgley, & Urdan, 1996); the reverse is true for individuals lacking belonging (Finn, 1989). Explained in terms of Maslow's (1999) hierarchy of psychological needs, the need for belonging must be met before experiences such as creativity, spontaneity, or adaptive problem solving will be the norm; explained in terms of self-determination theory, belonging contributes to an internal working model of the processes through which individuals relate to the world, thereby energizing or disaffecting engagement (Connell & Wellborn, 1991). These influences have been observed across many settings (i.e., organizational, educational) and ages and appear to be especially salient when acclimating to a new situation (Baumeister & Leary, 1995; Connell & Wellborn, 1991; Juvonen, 2006; Osterman, 2000).

Belonging has traditionally been explored as a measurable, concrete, fixed entity (Magnussen, 2003) and has been anchored primarily in interpersonal relationships (Anderman & Freeman, 2004; Osterman, 2000). However, recent research demonstrates limitations to these models. Considerations of sociocultural perspectives and individual intention or agency are now recognized as vital to understanding individual lives in contexts such as schools (Eccles & Gootman, 2002; Faircloth, 2009; Juvonen, 2006; Magnussen, 2003), and the ability to negotiate a fit between one's identity and one's context has been directly linked to the development of belonging (Faircloth, 2009).

These perspectives suggest that teacher candidates may be able to negotiate rather than merely hope for a setting within which they can develop a sense of belonging that supports the enactment of their personal vision for teaching. Consider, for example, the work of Hammerness (2006) regarding teacher vision. She used the term *distance* to refer to the discordance between teachers' personally held visions and what they believed could be done in their particular context. Her research suggests that teachers made progress toward enacting their personal vision if the distance between their vision and the context was reasonable and navigable. Those who viewed the gap as too vast or insurmountable experienced tension, doubt, discouragement, and distrust of their own vision. Hammerness emphasized that the crucial issue determining whether teachers were able to enact their vision was not the context itself but, rather, the ability to bridge the gap between vision and context.

Similarly, Alsup (2006) reported that the teacher candidates who did not make connections between their personal visions of teaching and the context did not continue as teachers, and laments the fact that neither schools of education nor schools themselves typically provide space for this aspect of teacher development. Likewise, Urrieta (2007), who also explored teacher development in context, pointed out that participants in his study were able to perform the role of Chicano/a activist educators only when they were able to locate either a recognizable landscape relative to their own vision or to find a person with similar views with whom to interact. In contrast, participants who experienced cultural isolation struggled with enacting their vision and either created their own sites for critical engagement of their vision or delayed the process of vision enactment until later in their careers. This ability to negotiate a sense of connection lies at the heart of belonging (Juvonen, 2006).

Viewing teacher development through this lens suggests the importance of preparing teacher candidates for the potential tension between their individual perspectives and educational contexts. The degree to which teachers are prepared to navigate such discrepancies may be central to whether school is a place characterized by disidentification and frustration or a setting in which one's vision can be creatively engaged. Consequently, rather than hoping that teacher candidates serendipitously find teaching settings that are congruent with their personal goals, teacher education programs could support thoughtfully adaptive teaching by giving greater

attention to preparing candidates to anticipate and negotiate the complexities of teaching environments. Individuals who learn to negotiate a sense of congruence with their context (i.e., creating for themselves a sense of belonging) may more easily enact thoughtful teaching practices because the self-efficacy and motivation required to act on their own perspectives and ideas will be supported (see, for example, Faircloth & Hamm, 2005).

#### *Perspective 4: Identity*

Theories of identity, as sociocultural ideas about the influences that shape individuals across their lives and contexts, add a poststructural twist to our exploration of what is needed, beyond knowledge, for teachers to become responsive to students and situations. Contemporary conceptions of identities derive from the fields of sociocultural psychology (Bruner, 1986; Cole, 1996; Lave & Wenger, 1991), anthropology (Holland, Lachicotte, Skinner, & Cain, 1998), sociolinguistics (Fairclough, 1995; Gee, 1999), sociology (Bourdieu, 1986; Jenkins, 2004), and poststructuralism (Butler, 1993; Davies & Harré, 2000). Although these fields at times provide competing theories about identity, they all maintain that individuals' identities are always in flux; that individuals' actions occur in specific times and places; and that they are influenced by current context and prior experiences (learned or socially imposed), discourses (Gee, 1999), dispositions (Bourdieu, 1986), scripts (Gutierrez, 1994), timescales (multiple sociohistoric spheres of influence; Wortham, 2006), or storylines (Davies & Harré, 2000). Identities are learned but not static; people improvise within events in ways that are novel or uncharacteristic (Holland et al., 1998); and identities are practiced, revised, and resisted in specific contexts, such as schools. For teacher candidates, the overlapping and competing worlds of the university, the local schools, and home communities contribute to how they perform specific identities. In this sense, contemporary theories of identity explain that teacher candidates may maintain, resist, or transform teaching practices because context, history, culture, discourse, power, and ideologies influence their work.

Most of the recent published research on identities falls into two broad categories. The first, and largest, explores race and power, especially with respect to whiteness and urban education (Marx, 2006; Pennington, 2007; Vaught & Castagno, 2008). These studies by and large examine how White privilege affects the assumptions and the knowledge teachers construct about their students' abilities, behavior, or potential. The second category of studies focuses on the development of teacher identities, especially teacher candidates' identities as members of a community of practice (Lave & Wenger, 1991). These studies explore how teachers and teacher candidates must negotiate the competing discourses of university and/or school worlds in a process of self-fashioning that continually exerts influence on professional decisions (cf. Alsup, 2006; Freeman & Appleman, 2008) and on the beliefs, visions, and theories that guide teaching (Alsup, 2006; Olsen, 2008; Ronfeldt & Grossman, 2008; Sloan, 2006; Varelas, House, & Wenzel, 2005).

These studies all suggest that teachers perform their identities on a daily basis as they take up positions as advocates, experienced adults, administrators, classroom authorities, and/or assessors in the school or classroom. As Davies and Harré (2000) explained, such positionality is a "discursive practice whereby selves are located in conversations as observably and subjectively coherent participants in jointly produced storylines" (p. 91). Moreover, Holland et al. (1998) noted that as people are repeatedly positioned in specific ways, they learn positional identities that define them as specific people. These positional identities are not impervious to change and reflect the negotiations individuals undertake across time and in multiple communities of practice, such as the university or public school (Lave & Wenger, 1991). As teacher candidates interact with school settings, they are positioned and position themselves as specific kinds of teachers (e.g., thoughtful, tough, easy, caring) in specific acts of self-authoring (Holland et al., 1998).

A brief example from a teacher candidate's lesson may make such negotiations more concrete. The teacher candidate used think-aloud, a strategy learned in her language arts methods course, to model working with a difficult text, and enlisted the students' assistance in making sense of it. The students then used the strategies she modeled, and those they created together, to read a challenging story independently. During this lesson, she performed a teacher identity consistent with literacy discourses that value modeling, strategy instruction, and

textual “fit.” But she also explained that her mentor teacher worried that both texts were too difficult for the students—a positioning of students the teacher candidate resisted.

Several aspects of identity came into play here. First, the teacher candidate chose a specific practice with students based on knowledge she learned at the university, performing an identity as a good (university) student. She also performed an identity as a teacher who believed in the abilities of her students, linked perhaps to her own school experiences or her teacher education program. Third, in a small but important act of agency and self-authoring, she resisted her mentor teacher’s perceptions of students. This example illustrates the complexity teacher candidates face in teaching even a single lesson. They must juggle the competing or conflicting discourses defining “good” teaching and manage these discourses by performing teaching identities satisfactory to both school and university contexts.

These juggling acts further illustrate how issues of power (Foucault, 1980) and authority (Bakhtin, 1981) affect a teacher candidate’s positioning and decisions. Some discourses (e.g., scientifically based research) and practices (e.g., benchmarking) are authorized; other discourses, such as “conventional wisdom” or “best practices,” may be perceived by a teacher candidate to be fluid but are not acceptable in a particular school context. This teacher candidate had to construct identities that allowed her to “speak back” to conventional wisdom or established practice. Alsup (2006) characterized such practices as “borderland discourse,” interactions that entail “contact between disparate personal and professional subjectivities” (p. 36) in which teacher candidates “bring personal subjectivities into the classroom and connect them to their developing professional selves” (p. 37). For instance, the teacher candidate’s belief that she should provide challenging activities brought the professional context of her university preparation in conflict with the school setting. Negotiating such conflicts may produce tensions for novices. The consequences—whether a “failed” lesson or a successful one—may also shape how teacher candidates position themselves in subsequent interactions. Each of these experiences embodies acts of agency.

As Lave and Wenger (1991) argued, learning to be some-thing—a tailor, midwife, or teacher—involves more than technical knowledge or skill. It entails becoming a member of the community by knowing its social relations and the overlapping knowledge, theories, and beliefs that direct professional actions. It also entails knowing how to use these resources to change practices. Holland et al. (1998) argued that such agency is attributable to individuals’ capacity to “imagine themselves in worlds that may yet be scarcely realized, and to the modest ability of humans to manage their own behavior” (p. 281). To perform as thoughtful teachers, candidates may require equally thoughtful opportunities to respond to the myriad forces that shape them by enlarging their capacities to imagine other possibilities for themselves and their students.

## Discussion

The presentation of these perspectives is a much neater portrayal of our monthly conversations than their actuality. These four perspectives have generally worked independently from one another, partly because they are representative of different philosophical and epistemological roots and, as a result, developing ways of talking across and within them constituted one of our major challenges. To help us find common ground, possible responses to our questions, or ways of rethinking how we might prepare more thoughtful teachers, we created charts and diagrams, responded to scenarios by applying our respective perspectives, and speculated about the implications of these discussions. Throughout this process, our intent was never to disparage the importance of pedagogical and professional knowledge. To the contrary, we value knowledge as a foundation of good teaching. But knowledge alone does not seem to answer our driving question: “Why are some teachers more thoughtful than others?” Our exploration of the above four perspectives has been a search for what beyond knowledge we might attend to in order to prepare greater numbers of teachers who are thoughtfully responsive to students and situations.

Our discussions led us to the tentative hypothesis that thoughtful teachers may not only possess declarative and procedural knowledge; they may also have a clearer idea of what they are trying to accomplish and the strength to persist despite difficulties. They know *when* to apply “what” and “how” knowledge and *when not to*; they

know *why* certain knowledge would be appropriate in one situation but not another; and they proactively *look for multiple perspectives and pursue multiple possibilities* because they recognize and respond to the complex needs of their students. These characteristics have been variously described as *conditional knowledge*, which is applied in order to “adjust actions recursively to fit changing conditions” (Paris, Lipson, & Wixson, 1983, p. 304); and as a sense of one’s voice or *agency* that, in turn, is grounded in values and choices that go beyond knowledge (Holland et al., 1998; Nespor, 1987; Nisbett & Ross, 1980). Yet one of the difficulties of our enterprise has centered on developing terminology appropriate across different epistemologies, as terms may have different connotations across perspectives, and concepts can be slippery to define. After considerable discussion, we settled on *self-knowledge* and *agency* to describe what, for us, seem to be critical factors for thoughtful teaching beyond other forms of professional knowledge. These terms imply, for us, awareness of one’s beliefs and theories about teaching and learning, a vision to guide practice, a sense of belonging to and a stake in the professional community, and ways of imagining and enacting identities consistent with the visions and beliefs they have constructed from knowledge and experience. Encouraging teacher candidates to craft such thoughtfulness also implies that we must provide teachers with opportunities to engage both in the process of knowing and developing a greater self-consciousness about who they want to become as teachers and in negotiating how to become the teachers they envision in the highly complex environment of class-rooms and schools.

In bringing our four perspectives together, therefore, we have tentatively concluded that teaching that is responsive to students and situations requires teachers who know who they want to become (i.e., self-knowledge) and who are both pro-active and skilled in navigating places for themselves as teachers (i.e., agency). We postulate that self-knowledge and a sense of agency with the intent of purposefully negotiating personal and professional contexts may be as important as, if not more important than, the more traditional conceptions of professional knowledge. As Lytle and Cochran-Smith (1994) have noted, knowing one’s *own* knowledge may be a key to differentiating quality teachers.

## Conclusion

Where in our research on teacher education and in our teaching of teachers do we build teachers’ self-knowledge about their professional selves and their ability to negotiate the complexities of being who they want to become? We believe too little attention is paid to this dimension of teaching, both in practice and in research. Consequently, we offer two suggestions.

First, we may need to push the boundaries of what has been considered teacher reflection toward a multidimensional kind of reflection that takes into account not only what one’s vision is but also how to sustain it (Zeichner & Liston, 1996). That is, beyond knowledge, teacher education may need to embrace personal goals and ways to realize these goals in the context of professional life. Doing so entails two sets of strategies—one that makes visions and personal theories explicit and one that equips teacher candidates to negotiate the demands, discourses, and politics of educational settings. McKnight (2004), drawing on Bakhtin (1981, 1984), argued that teachers may conceive of teaching as “ritualized and regulated activity” and therefore assume that “strategies and methods identified as part of the ritual [practices] are the only legitimate actions to take” (p. 292). Alternatively, teachers might learn to juxtapose their personal theories, visions, sense of belonging, or identities with the realities of school and “push back on the institutional and social narratives that push on them” (Clandinin, Downey, & Huber, 2009, p. 151). In short, and as is suggested by activity theory (Grossman, Smagorinsky, & Valencia, 1999), living the life of a teacher involves living within a “system” in which there are multiple worlds making multiple demands. The result is that, without preparation, a process of cultural mediation occurs in which contextual elements (e.g., school, community, state, and national policies, politics, and economics) may quickly force teachers into less thoughtful ways of teaching. Part of teacher education curriculum and practice, we propose, should prepare teachers to deal effectively with these forces as thoughtful professionals.

Second, we believe we need to study teacher education processes more broadly. In the past, research on teacher knowledge has been commonly described either in terms of categories of discrete knowledge (Munby, Russell,

& Martin, 2001; Shulman, 1986) or as various forms of “practical knowledge” (Connelly & Clandinin, 1985; Elbaz, 1983). References to issues of teacher self-knowledge and agency have received less emphasis. Grossman (1995), for instance, included a category called “knowledge of self,” and Golombek (1998) extended earlier work on practical knowledge to include personal dimensions, but these remain largely unexplored. Moreover, the rise of interest in identity has offered a means of examining the processes of teacher acculturation and the intersection of identities and contexts. Examples of potentially useful research in this area include transdisciplinary studies (Kamberelis & Dimitriadis, 2005) that explore whether perspectives such as those we describe above influence teachers’ actions and the kind of work Randi (2004) has initiated regarding “self-regulated” teachers. But we need much more empirical data about how some teachers find the strength to act thoughtfully in the face of increasing pressure to be narrowly technical and how teacher educators might help them develop this strength. In our own work, we have just begun to conduct studies in this vein.

Teacher education has always been a difficult and complex enterprise, perhaps made more difficult by the lack of consensus and limited research evidence about what makes teaching “great.” As Lave (1996) argued, research on teaching for the most part “reduces teaching to curriculum, to strategies or recipes for organizing students to know some target knowledge” (p. 158). Such research, she contended, dissects teaching processes into disaggregated bits of technical teaching practices. As noted earlier, this more technical perspective on teaching is becoming more prominent, and we fear that sustaining a commitment to progressive, student-centered practices is becoming less so. We suspect that negotiating this dilemma requires that we do more than we have traditionally done in both our teacher education programs and our research. We hope the foregoing exploration will stimulate our teacher education colleagues to engage in similar discussions and ultimately in research that will help us identify what we can do beyond providing traditional forms of professional knowledge to promote more thoughtfully adaptive teachers.

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