Bringing feminist poststructuralism to bear on [mathematics] teacher education

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This paper explores the usefulness of marshalling feminist poststructuralist frameworks to think about mathematics teacher education. After describing some of the fundamental aspects of feminist poststructuralism, I use this framework to interrogate a specific vignette from mathematics teacher education — the case of Casey. My analysis of this case demonstrates the centrality of notions of identities to the feminist poststructuralist project, and the utility of what such an analysis now renders visible.

Feminist poststructuralism(s)

Rather than having one, fixed meaning, there are many poststructuralisms, and although many and varied definitions exist, I will refer to poststructuralism as the "working of cultural theory in a postmodern context" (Lather, 1991, p. 4). Poststructuralists see no essential connection between the word and its meaning, thus meanings don't exit prior to events, experiences or discourses. Meanings exist when they are articulated in language. What feminism brings to postrstructuralism is the ability, "to address the questions of how social power is exercised and how social relations of gender, class, and race might be transformed" (Weedon, 1987, p.20). As with other projects that emanate from a similar feminist theoretical vein, "Feminist activist research consciously seeks to break up social silences to make spaces for fracturing the very ideologies that justify power inequalities _ even feminist ideologies" (Hollingsworth, 1996, p. 29).

Inherent in this theoretical configuration is an attention to issues related to selves and identities. Chris Weedon notes that, "while different forms of poststructuralism vary in both their practice and in their political implications, they share certain fundamental assumptions about language, meaning and subjectivity" (1987, p. 20)

Another defining feature of poststructuralist approaches is deconstruction — "to keep things in process, to disrupt, to keep the system in play, to set up procedures to demystify continuously the realities we create, to fight the tendency for our categories to congeal" (Grosz, 1989, p. xv). I will seek to employ this strategy later in this paper when examining the vignette about Casey, mentioned in the first paper. This eclectic theoretical framework compels me to problematize the relationships between women, mathematics, and [mathematics] teacher education and to re-examine them from a variety standpoints. Further, as Sandra Harding (1991) describes, these standpoints allow for contradictions and resistances, recognize a multiplicity of positionings based on the context of the interaction, and enable my voice to enter the analysis. I find it generative to start from this feminist poststructuralist position because it allows me to generate questions in order to examine the social conditions of a group from their standpoint in order to then "articulate observations of and theory about the rest of nature and social relations" (Harding, 1991, p. 124).

Thus, I marshal feminist poststructuralism as "a mode of knowledge production which uses poststructuralist theories of language, subjectivity, social processes and institutions to

understand existing power relations and identify areas and strategies for change (Weedon, 1987, p. 40).

Language

Poststructuralism sees language as "the common factor in the analysis of social organization, social meanings, power and individual consciousness" (Weedon, 1987, p. 21). As such, "language, far from reflecting an already given social reality, constitutes social reality for us" (Weedon, 1987, p. 22), and therefore becomes a critical site for the contestation of meaning. Thus "language, in the form of an historically specific range of ways of giving meaning to social reality, offers us various discursive positions... through which we can consciously live our lives" (Weedon, 1987, p. 26). How we live our lives by giving meaning to our various social relations is both fostered and constrained by our access to existing discourses. These discursive fields "consist of competing ways of giving meaning to the world and of organizing social institutions and processes. They offer the individual a range of modes of subjectivity" (Weedon, 1987, p. 35). Some discursive fields are more central, or hegemonic and other are quite marginal.

Subjectivity/Identity

Contrary to humanist notions of knowing, knowable and rational subjects, "poststructuralism theorizes subjectivity as a site of disunity and conflict" (Weedon, 1987, p. 21), produced through a whole range of discourses, and therefore neither coherent nor fixed. Rational, humanist subjects have typically been examined via lists of bounded, discrete identity categories that attempt to represent them as rational, stable, and static. On the other hand, "poststructuralist theory argues that people are not *socialized* into the social world, but that they go through a process of *subjectification*." (Davies, 1993, p. 13).

As Bronwyn Davies (1994) notes, "[e]xamining any individual's subjectivity is thus a way of gaining access to the constitutive effects of the discursive practices through which we are all constituted as subjects and through which the world we all live in is made real" (p. 3). Further, she notes that

The tensions and instabilities in each person's subjectivity become visible in a poststructuralist analysis through an examination of the discourses and practices through which our subjectivities are constituted... the discourses and practices through which we are constituted are also often in tension, one with another, providing the human subject with multiple layers of contradictory meanings which are inscribed in their bodies and in their conscious and unconscious minds. (Davies, 1993, p. 11)

But it is not enough to refer unproblematically to "giving voice" to "experience," as if this is a source of "true knowledge." Since all experience is mediated, the discursive construction of subjectivities reveals socially-constructed "versions" of understandings. Since subjectivities are in motion and always under construction, this theoretical framework does not try to fix or unify these subjectivities, but instead it looks to the more fluid process of meaning-making and subject formation.

Power and agency

Poststructuralism invites a different view of power form something gained and lost, possessed and stripped away. Instead, it also sees power as a productive force, rather than

just as a repressive force. As Weedon writes,

The principles of feminist poststructuralism can be applied to all discursive practices as a way of analyzing how they are structured, what power relations they produce and reproduce, where there are resistances and where we might look for weak points more open to challenge and transformation (1987, p. 136).

As described earlier, the subject is produced within contexts, and its agency is at once enabled and constrained by those very same contexts. Davies writes, "Poststructuralism opens up the possibility of agency to the subject through the very act of making visible the discursive threads through which their experience of themselves as specific beings is woven" (1993, p. 12) Agency, then, might be thought of as the ability to respond, a certain response-ability, that a subject enacts.

Interrogating the case of Casey

Turning to the vignette about Casey described in the first paper, what does a feminist poststructuralist analysis render visible for us? What does such an analysis foreground? I want to use feminist poststructuralism "to make sense of, and identify ways of interrupting, abiding educational exclusions and inequalities" (Youdell, 2006, p. 33) and as "an attitude of critique to dominant mathematics education research" (Valero, 2004, p. 35). To that end, I think the vignette tells us more about teacher education than it does about Casey. Thus, we might interrogate:

Normative constructions of the field of mathematics [education]

Acknowledging the ways in which both mathematics and mathematics education are covered with the cultural fingerprints of their creators (Murtadha-Watts, 1997; Shulman, 1994), in relation to Casey we might ask why these understandings have such a grasp on her imagination, and why do new ways of thinking and learning about mathematics pose such a challenge? And how is mathematics being rendered in teacher education as opposed to what she sees in schools? How is she, as a woman, included and excluded from mathematical discourses, and how do they position her to think about herself? Making explicit these inclusions and exclusions seems an important aspects of the project of [re]imagining mathematics in teacher education and beyond.

Normative sense of a unified, coherent and discernable, intelligible self—perhaps a focus on identity rather than subjectivity

Feminist poststructuralism acknowledges the sense of one's subjectivity as shifting, multiple, and sometimes contradictory. But translating this theoretical stance into the lives and bodies of people proves quite challenging. Casey is experiencing tensions between how she is feeling — fractured, incoherent, unstable — and how she thinks she should feel — intelligible, rational, static. How do teacher education programs teach about feminist poststructuralist notions of subjectivities so they can become resources for students rather than sources of tension and conflict? It might be useful to engage with Davies: "I use poststructuralist theory as a means of dislocating the press of more usual discourses, as a way of unraveling old realities/perceptions and thus making way for new ones. I draw attention to the text itself, not as it reveals a "real," objectively knowable world to which the text simply points, but as it enables us to see the possible worlds that the text

constitutes" (1993, p.14).

Normative structures and processes of teacher education that might imply [or insist] a unified coherent ID is necessary, or essential

This vignette issues challenges to teacher education to re-think the ways that our programs may [unwittingly] reproduce uncritical notions of teachers and teaching, and in the process do a real disservice to prospective teachers, which although they may already realize the fractured nature of their own identities as a result of just living in the world, face a new set of dislocations as they ponder their practice as a "fractured" professional. What in teacher education programs prepares them to think through, enact, and cope with these issues? How do some discourses about "being a teacher" become hegemonic? Where is the powerful role of emotions (Zembylas, 2003) recognised and validated?

Caricatured renderings of both school culture — which suggests one needs to forget everything they learned in teacher education and get down to the *real* business of teaching — and universities — which cast schools as at best anti-theoretical, and at worst, anti-intellectual.

Casey's sense of "contradiction" and "misalignment" may be predicated on the sense that all of the pieces of her teacher education and practice in the "real" world should fit together, and they don't. What is misalignment were seen as desirable instead of dreaded? What if we learned strategies to work productively across seemingly contradictory or incoherent fields? How might that change Casey's outlook about her future career as a teacher? What one won't or can't learn can be an instructive focus for thinking about learning and what one can and does learn. As such, I think Deborah Britzman's work is very useful to this project, for she reminds us that, "The oddest conditions and circumstances of *not learning*, it will turn out, will be extremely significant to the matter of who we think we are as we become subjected to and subjects in education" (2003, p. 2).

This entails more than just changing preservice teachers' views, or changing their views of mathematics, it ultimately necessitates knowledge of and a commitment to changing cultures in teacher education. We need to equip our students with the knowledge and skills to be agents of change, in this case around issues to do with the nature of mathematics and inquiry-based mathematics instruction, in the face of sedimented school [and teacher education!] cultures. They need to do much more than cross borders into schools with this knowledge of learning and teaching mathematics, they need to become cultural brokers and work to foster cultural change.

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