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# Exploring Different Theoretical Frontiers

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*Providing for a praxis of uncertainty, theoretical traditions that uncover how knowledge, power, and identity are interwoven and constituted in and through socio-cultural and -political discourses characterize the sociopolitical-turn moment in mathematics education research. Researchers who work in the sociopolitical-turn moment pull from a variety of theoretical perspectives most often located in the emancipate and/or deconstruct paradigms of inquiry. In this symposium, panelists discuss how different theoretical traditions available to researchers in the sociopolitical-turn moment provide new productive ways to think and rethink mathematics teaching and learning.*

## **Aims of Symposium**

[Text extracted and revised from Stinson and Walshaw (in press)]

This symposium aims to engage MES8 participants in a critical, interactive discussion about how theoretical traditions characterized as being in the sociopolitical-turn moment of mathematics education research provide new productive ways for researchers, teacher educators, classroom teachers, and policymakers to think and rethink mathematics teaching and learning. Panelists discuss, in turn, critical

theory, poststructural theory, feminist theory, and critical theories of race, and outline how these respective theoretical traditions provide different and uncertain possibilities for transforming mathematics teaching and learning into an empowering experience for all.

## Relevance of Symposium

To make sense of the proliferation of theoretical traditions used in (Anglophone) mathematics education research since the 1970s, four distinct yet overlapping and simultaneously operating shifts or historical moments in mathematics education research have been identified: the process–product moment (1970s–), the interpretivist–constructivist moment (1980s–), the social–turn moment (mid 1980s–), and the sociopolitical–turn moment (2000s–) (Stinson & Bullock, 2012).

Providing for a praxis of uncertainty (Kincheloe & McLaren, 1994; Stinson & Bullock, 2012), theoretical traditions that undercover how knowledge, power, and identity are interwoven and constituted in and through socio-cultural and -political discourses characterize the sociopolitical–turn moment (Gutiérrez, 2013; also see de Freitas & Nolan, 2008; Valero & Zevenbergen, 2004). But here discourses are no longer mere words that might be heard or read but rather discursive practices that systematically form the possibilities (and impossibilities) of knowledge discourses, which, in the end, produce and reproduce régimes of truth (Foucault, 1969/1972, 1977/1980). Researchers who work in the sociopolitical–turn moment understand mathematics as a discursive formation (cf. Foucault, 1969/1972), made and remade within the sociopolitical contexts in which it is taught and learned; they adopt a degree of social consciousness and responsibility in their attempts to both understand and expose the wider social and political picture of mathematics and mathematics teaching and learning (Gates & Vistro-Yu, 2003; Jablonka, Wagner, & Walshaw, 2013). Acknowledging that no research is agenda-free, political or otherwise, these researchers do not rally around some common political agenda but rather understand that education is politics (cf. Skovsmose & Greer, 2012). And today, few disciplines are as politicized as (school) mathematics, as it is constituted in and through a dense web of sociopolitical power (Brown & Walshaw, 2012).

Researchers who work in the sociopolitical–turn moment pull

from a variety of theoretical perspectives most often located in the emancipate and/or deconstruct paradigms of inquiry (see Table 1 for a mapping of the moments of mathematics education research to broader paradigms of inquiry with a non-exhaustive listing of theoretical traditions). Although these paradigms of inquiry operate from different and often-argued incommensurable philosophical assumptions, both paradigms seek to open up the research text (de Freitas & Nolan, 2008), using theory as a vehicle for exposing different productive possibilities within mathematics education (Brown & Walshaw, 2012). Forging these different frontiers, researchers aim to open up “the fictions, fantasies, and plays of power inherent in mathematics education” (Walkerdine, 2004, p. viii) as they challenge the taken-for-granted assumptions and habitual ways of working and thinking that underlie much of “traditional” mathematics education research often located in the predict and/or understand paradigms.

As symposium panelists focus on theoretical traditions located in the emancipate and deconstruct paradigms, it is important to note two points. First, the term *different* rather than *new* is used to remind MES8 participants that the theoretical traditions discussed are neither new to the social sciences, generally, nor to education social science, specifically. They are, however, somewhat new to the research domain of mathematics education. Second, panelists are not suggesting that the theoretical traditions that are highlighted lead to a “better” or “best” way of conducting mathematics education research. These traditions do, however, disrupt the status quo by providing different (and uncertain) possibilities for producing different knowledge and producing knowledge differently (St. Pierre, 1997). It is also important to note that each paradigm of inquiry—predict, understand, emancipate, and deconstruct—comes with its own set of philosophical assumptions regarding truth, certainty, and logical consistency. Therefore, as panelists discuss different theoretical traditions located under the emancipate and deconstruct paradigms, our collective aim is not to “tell others what they must do” but rather to “shake up habitual ways of working and thinking” (Foucault, 1984/1996, 462–463).

**Table 1**  
**Moments of Mathematics Education Research & Paradigms of Inquiry**

- Process–Product Moment (1970s–)→*Predict*
- Interpretivist–Constructivist Moment (1980s–)→*Understand*
- Social-turn Moment (mid 1980s–)→*Understand* (albeit, contextualized understanding) or *Emancipate* (or oscillate between the two)
- Sociopolitical-turn Moment (2000s–)→*Emancipate* or *Deconstruct* (or oscillate between the two)

**PARADIGMS OF INQUIRY**

Predict	Understand	Emancipate	BREAK	Deconstruct
*Positivist Experimental Quasi-experimental Mixed methods> Experimental Quasi-experimental Mixed methods>	*Interpretivist Social constructivist Radical constructivist Sociocultural> Phenomenological Ethnographic Symbolic Interaction	*Critical Freirian <Feminist> Critical Race Theory> LatCrit Theory> Critical Theories of Race> Critical mathematics Social justice mathematics Ethnomathematics Culturally specific/ responsive Mathematics	BREAK	*Poststructural/ Post-modern Post-critical Post-colonial Post-humanist Post-Freudian <Discourse Analysis

- \* Indicates the term most commonly used
- < Indicates cross-paradigm movement
- The “Break” represents a hybrid, in-between space where the researcher might adopt a critical postmodern theoretical tradition (see Stinson & Bullock, 2012).
- *Paradigms of Inquiry* adapted from Lather and St. Pierre in Lather, 2006, p. 37.

**PLAN OF SYMPOSIUM**

Day 1	Day 2
<ul style="list-style-type: none"> <li>• Coordinators’ Introductions</li> <li>• Panelists’ Presentations</li> <li>• Discussants’ Synthesis</li> <li>• Participants’ Q&amp;A</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinators’ Introductions</li> <li>• Participants’ Working Group Breakout</li> <li>• Participants’ Working Group Report Out</li> <li>• What’s Next?</li> </ul>

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