Philosophical Critiques of Qualitative Research Methodology in Education: A Synthesis of Analytic-Pragmatist and Feminist-Poststructuralist Perspectives

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This essay is part of a larger project to explore how a model of argumentative reasoning can help qualitative educational researchers ask critical questions about inferences drawn from research findings, investigate the complex relations between theory and evidence, and design research studies to maximize their rhetorical and political effectiveness. The model of argument I am putting to work in this project derives from Stephen Toulmin's classic treatise.[1] In opposition to the formal logic of mathematically inclined philosophers like Rudolf Carnap, Toulmin developed a pragmatic theory of "working logic" to better account for the kind of argumentative reasoning expressed in the claims, assertions, doubts, and rebuttals of ordinary discourse, which he takes to include discourse in specialized fields of knowledge.[2] I find that Toulmin's model of argument is well suited to describing the ways that educational researchers think and work, and it can also be applied as a critical tool to analyze how research arguments are constructed in published reports. These virtues aside, motivating a turn to argumentative reasoning in qualitative methodology requires a thorough critique of received views about the nature of research in education and the social sciences more generally. Going beyond well-known critiques of "positivism" in the social sciences (typically directed toward quantitative methodologies), this paper draws from analytic-pragmatist and feminist-poststructuralist perspectives to problematize standard approaches to *qualitative* research in education and related fields. The first two sections engage recent feminist-poststructualist critiques of qualitative methodology. The third section takes an analytic-pragmatist turn to reconstruct a central methodological concept. In the final section, I introduce the Toulmin model of argument as a possible way forward for qualitative methodology in education.

Formalization and Interpretation

In *Cartographies of Knowledge*, Celine-Marie Pascale synthesizes and extends the critical work of feminists and poststructuralists over the last forty years to rethink the foundations of the social sciences.[3] Her work can be situated as part of a broader effort within the qualitative research community to mobilize philosophical criticism in ways that challenge certain ontological, epistemological, and ethical commitments that have come to be taken for granted, particularly in the teaching of qualitative methods and supervision of qualitative dissertations. For Pascale, these unacknowledged commitments stand in the way of qualitative work that could be more accountable to relations of power and demands of justice. She argues that while qualitative researchers have incorporated power, subjectivity, and agency into their interpretive frameworks by drawing on poststructuralist theory, they often continue to employ analytical strategies that are premised upon naive and indefensible philosophical assumptions. To advance qualitative research in ways that are empirically

PHILOSOPHY OF EDUCATION *2014* | Michele S. Moses, editor

grounded, ethically responsive, and politically effective, Pascale suggests that we must "draw new maps" starting from more self-conscious ontological, epistemological, and ethical orientations.

Pascale uses the expression "Cartesian dualism" to identify the set of commitments that qualitative researchers take for granted in applying common strategies of research design and data analysis. This unarticulated philosophical stance takes its point of departure from a primary ontological distinction between the "subject" and the "object" of knowledge.[4] According to this distinction, the subject is "an individual fully endowed with consciousness and agency" who is capable of using reason to bring conceptual order and cognitive understanding to perceptual experience. What the subject perceives are objects with certain observable and measurable properties that are experienced as being materially present "in the world" (*CK*, 31–32). This dualistic ontology has broad implications for social science research. First and foremost, in positioning the researcher as the knowing subject, the people who are studied can only be regarded as objects of (possible) knowledge — in modern parlance, they are seen as "sources of data." Beginning from this subject/object duality, it is difficult to escape the epistemological stance that all knowledge of the social world must originate from observable and measurable properties of social things (for example, acts and utterances, patterns of behavior, group dynamics, and so on). The methodological implication of this stance is that the researcher's task is to collect "data" from observation and/or measurement, and then to impose some kind of order on this data by applying theoretical concepts and inferential procedures. Researchers commonly refer to this second step as "analyzing the data."

The critique of Cartesian dualism is by no means new.[5] What is original in Pascale's presentation, however, is her argument that this ontological and epistemological stance is assumed whenever qualitative researchers apply the logic of "analytic induction," the basic methodological strategy underlying most qualitative research traditions. Analytic induction may be thought of as a general approach to making inferences about patterns in qualitative data, an approach that is closely related to the practice of "coding." As Pascale explains,

> Researchers use inductive *reasoning* to code data and, based on these codes, identify patterns and construct potential explanations. As she or he locates exceptions in existing data, or in new cases, the researcher either refines the emerging theme or pattern, and its explanation, to include the exceptions, or explains the presence of the exceptions. (*CK*, 54)

Analytic induction can be practiced in a highly systematic way, as with the use of computer programs for coding and pattern-recognition, or it can be practiced more intuitively, as it might be used to "make sense" of unfamiliar concepts or practices over the course of long-term ethnographic fieldwork. Even in qualitative traditions where analytic induction is not formally conceived as a *method*, researchers can be found appealing to the *logic* of analytic induction when they have need to justify their interpretive claims. Moreover, analytic induction provides a methodological rationale that guides common research decisions across qualitative research traditions and is codified in qualitative research textbooks. It is for this reason that Pascale sees analytic induction as a "system of formalization" that is independent of the various "interpretive frameworks" that qualitative researchers bring to bear in their

doi: 10.47925/2014.335

analyses (*CK*, 16–17). As a system of formalization, analytic induction reinforces the ontological and epistemological assumptions that turn researchers into "knowing subjects" and the people they study into "sources of data."

More broadly, Pascale theorizes "formalization" as a condition of social-scientific legitimacy. Formalization consists of "protocols for recognizing relevant phenomen[a] and transforming them into data" — protocols that are then used to determine what can count as "valid evidence" (*CK*, 16–17). From this point of view, the reason why different research traditions seem to have different standards of evidence is because they establish and enforce different protocols for producing "data." For qualitative traditions grounded in analytic induction, "empirical evidence" is (at minimum) "something to which one can point in a local context" (*CK*, 16–17). This view of what can count as empirical evidence for interpretive claims is commonplace in qualitative research, to the point where researchers fail to recognize it as a constraint *imposed* on social-scientific practice, as opposed to a basic epistemological limitation. Pascale argues that this constraint has consequences for the kind of knowledge social research can produce. Consider the two demands that analytic induction places upon qualitative researchers' claims to "empirical evidence." First, the researcher must circumscribe some "local context" that renders statements and acts interpretable, so that they can be "coded" for possible meaning (for example, meaning shared by the other participants in that context). Second, the researcher must be able to "point to" specific exemplars of statements or acts that were observed and/or recorded in that context, in order to present those exemplars as instances of, or exceptions to, some "emerging theme or pattern." *What does this concept of "empirical evidence" exclude?* First, it would seem not to allow anything outside of the circumscribed "local context," or anything that cannot be "pointed to" in a transcript or observational record, to count as "data." This requirement excludes affective and cultural dimensions of lived social experience that cannot be reduced to observable, localized manifestations. Second, it would seem not to allow *singular* observations or impressions to count as "evidence." In other words, for some ostensive exemplar to count as "empirical evidence" in support of an interpretive claim, it must be presented as an instance of a pattern that is *objectively present* in the data. This second requirement is how Cartesian dualism comes in through the back door of qualitative data analysis.

The notion that certain patterns of meaning are "already there" in the data for the researcher to discover is not a defensible epistemological stance. This should be a familiar point after the widespread repudiation of "positivism" in the social sciences since the 1970s, but it is not even necessary to turn to more recent schools of thought like poststructuralism or feminist philosophy of science to undermine such a stance. Already in the 1950s, the analytic philosopher (and reputed pragmatist)[6] Wilfred Sellars elaborated an influential critique of this incoherent stance, which he names "The Myth of the Given."[7] For Sellars, what we overlook when we presume the "givenness" of meaning are the linguistic and rational capacities that are required to *take* certain perceptual states or observable regularities as being in some sense "meaningful."[8] When we attribute meaning to some regularity we perceive by calling it a "pattern," that claim falls within what Sellars calls "the logical space of reasons."

doi: 10.47925/2014.335

Attributing, *claiming*, *taking-true*, and so on are inferential moves that require "justifying and being able to justify what one says."[9] If I claim that a meaningful pattern can be found in the data, then I am doing something more than reporting my perception of a regularity: I am stepping into the space of reasons, and I must be prepared to justify the meaning I attribute to what I perceive. Put most simply, to take the meaning I attribute as "given" by the data is to fall victim to the Myth of the Given. In qualitative research, reliance on the strategy of analytic induction to ground interpretive claims helps to perpetuate this myth, even in spite of the professed constructivist and interpretivist commitments that many researchers share. When qualitative researchers fall victim to the Myth of the Given, "the evidence appears to simply unfold on the page, and research that is least accountable for its assumptions comes to be seen as most objective" (*CK*, 58).

While Pascale is clear about the limitations of analytical induction as a strategy for justifying interpretive claims, she is more ambivalent about "formalization" as such. On the one hand, formalization functions as a boundary condition (*CK*, 17) — it is what allows "science" to be used as "a disciplining force that privileges some modes of inquiry at the expense of others" (*CK*, 139). On the other hand, research strategies that eschew formalization (for example, autoethnography) seem to court marginalization — "they have a fairly limited impact on social science precisely because they challenge the need for broad coherence that continues to define social science" (*CK*, 17). This ambivalence leads Pascale to conclude that "the social sciences need processes of formalization that can draw from both empirical data and logical warrants in order to situate localized practices in broader cultural contexts" (*CK*, 166). Yet, aside from some brief remarks on critical discourse analysis, Pascale gives little indication of how qualitative researchers might construct alternative processes of formalization that would allow them to demonstrate the kind of "coherence" social-scientific legitimacy demands. To begin to think through this methodological dilemma, qualitative researchers need to engage such epistemological questions as: *Where do "logical warrants" come from? What can count as "empirical data"?* At present, we seem to lack the philosophical resources needed to approach such questions outside of the logical frameworks provided by analytic induction and hypothetico-deductive methodology.

The Postinterpretive Dilemma

As the last section argues, use of analytic induction as an *interpretive* strategy is premised upon the assumption that meaningful patterns are "already there" in the data for the researcher (qua "knowing subject") to discover. Philosophical analysis reveals this assumption to be incoherent with any plausible theory of linguistic or cognitive meaning. Recognition of this incoherence leads to what I call the "postinterpretive dilemma." The postinterpretive dilemma is the question of what can replace analytic induction as a strategy for warranting interpretive claims. In a postinterpretive context, warranting a claim should not be thought of as providing *objective* justification, but as making that claim accountable to certain *intersubjective* criteria of assessment — criteria that are always partial and open to critique and revision. In this section, I argue that qualitative researchers are increasingly moving in a postinterpretive direction by

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looking beyond analytic induction to think through issues of legitimacy, credibility, and warrant. With this postinterpretive move, two challenges present themselves. The first challenge is to work out a philosophical stance that makes research practices intelligible without falling back on a problematic subject/object duality. The second challenge is to somehow address the social-scientific demand for formalization that is presently regarded as a condition of legitimacy and relevance, particularly within applied fields like educational research, evaluation, and policy analysis.

Over the last two decades, qualitative inquirers have pursued two divergent strategies in the interest of moving beyond analytic induction. Some have turned toward styles of interpretation and criticism more commonly practiced in the study of literature, film, and media communication. Work of this kind reads social settings, interactions, and discourses as "texts," often drawing upon hermeneutic, semiotic, rhetorical, and deconstructive frames of analysis. Others have shifted toward a hypothetico-deductive logic of inquiry by situating their analyses within particular theoretical contexts. Here, the researcher does not wait for themes and patterns to "emerge from" the data, but begins with certain theoretical expectations and seeks either to confirm them or to explain why observations diverged from what the theory would predict. In *Thinking with Theory in Qualitative Research*, Alecia Jackson and Lisa Mazzei seek to incorporate insights from both of the strategies just described, while going beyond the epistemic limitations of each.[10] Their thinking starts out from the feminist/poststructuralist research tradition in education, building on earlier critical work by Patti Lather and Elizabeth St. Pierre.[11] Taking a cue from "social text" analyses, Jackson and Mazzei argue that qualitative researchers need to move beyond "coding" for themes and patterns and instead learn to "think *with* their data (or use data to think *with* theory)" (*TT*, vii). As in theory-based analyses, these methodologists place researchers' theoretical perspectives front and center, but here the intention is to employ theoretical vocabularies to "create new analytical questions" (*TT*, 6), rather than trying to fit data into a single coherent narrative. On both fronts, Jackson and Mazzei are pushing back against the false sense of coherence that derives from a misguided desire for interpretive closure (*TT*, ix). More than just another methods textbook, *Thinking with Theory* is a generative exercise that demonstrates how researchers can shift the center of interpretive inquiry from "trying to figure out what the participants … mean" (*TT*, viii) to "produc[ing] multiplicities and excesses of meaning and subjectivities" (*TT*, 4).

In describing their strategy of working "within and against interpretivism" (*TT*, vii), Jackson and Mazzei echo many of the criticisms of analytic induction voiced by Pascale. They quote St. Pierre as remarking that the kind of knowledge produced via the inductive strategy of coding is often "pedestrian and uninteresting," reproducing themes that are already taken for granted in social-scientific discourse.[12] As they put it, "Coding takes us back to what is known, not only in the experience of our participants, but also to our own experience; it also disallows a repetition that results in the production of the new, a production of different knowledge" (*TT*, 12). As I understand the critique that Jackson and Mazzei are making here, the reason why coding can only reproduce what is already known is because meaningful pat-

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terns and themes are not "objectively present" in the data; rather, the patterns and themes that come to be recognized through coding are those to which researchers and participants are already attuned. Moreover, analytic induction reduces *singular* moments of meaning in the data — moments rife with multiplicity and excess — to *instances* of a general pattern or theme — a repetition of the same. What would be required to produce a "different knowledge" would be "repetition" in a Deleuzian sense — a recursive reading where moments in the data are "plugged in" to theoretical sites to produce multiplicity and difference with/in the "same" (*TT*, 4). Jackson and Mazzei illustrate what this kind of recursive reading looks like by plugging the "same" interview data (transcripts from two interviews of "first-generation academic women") into different networks of theoretical concepts, derived from six poststructuralist/feminist philosophers and theorists. These readings show how new sites of meaning and subjectivity materialize and become visible in the "same" data when viewed through/thought with different theoretical analytics.

Although I am inclined to think that Jackson and Mazzei's text offers an important methodological advance over both inductive and confirmatory approaches to data analysis, I can't help but feel that the readings they produce fail to live up to the promise of a *post*interpretive logic of inquiry. What I find unsatisfying is that despite their efforts to make interpretive practice more fluid and open to multiplicity, their "data" come to appear static and monolithic when reproduced across a series of theory-inspired readings. We get readings that *apply* theory in interesting ways, but we do not get the opportunity to interrogate, challenge, and rework theoretical assumptions and expectations in light of emerging data. In my view, this failure to reconstruct the relation between data and theory keeps Jackson and Mazzei's project moored *within* interpretivism, despite their professed desire to also work *against* it.

Reconstructing "Givenness"

One reason why Jackson and Mazzei's data appear static and monolithic is because they are "already there" — in a very literal sense — before theory enters into the interpretive process. This is an effect of the way the authors structured their project: they followed the standard qualitative model of reviewing prior literature, identifying research questions, going out into the "field" to collect data, and then returning to analyze their data (*TT*, ix–xi). This four-stage process makes sense under the logic of analytic induction because patterns will begin to "emerge" more readily through the process of coding once the researcher has a substantial amount of data to sort through. In a *post*interpretive mode of inquiry, however, there is no rationale for thinking of "data collection" and "data analysis" as two separate stages of the research process. Because the researcher makes no pretense of proceeding inductively from individual exemplars to more general themes or patterns, it makes more sense to think of "collecting" and "analyzing" data as two complementary aspects of the same research process. Just as data should not be taken as *epistemologically* prior to theory, in the sense of possessing "objective meaning," data should not be made *ontologically* prior to theory, in the sense of being "already there" (as in recorded, transcribed, and printed out) before analysis begins. Overcoming the postinterpretive dilemma requires a fundamental reconstruction of the relation between data and

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theory, which demands that we rethink the relation between "data collection" and "data analysis" in qualitative methodology.

With the recognition that we have not yet overcome the postinterpretive dilemma, a new question presents itself: *How are we to escape subject/object dualism at the level of ontology without jettisoning the basic methodological distinction between "data" and their interpretation?* It seems to me that the answer is to come up with a way of defining "datum" that avoids reifying it as something "objectively present" or "already there." In other words, we need to think about how certain items of information — statements, observations, measurements, statistics, and the like — get *produced as* "data." If "data" and "interpretations" are both understood as contingent products of research activity, then any distinction between the two cannot be at the level of ontology. To understand the basis for such a distinction, we must look to the "grammar" of the language we use as researchers:[13] *In the language of research, when is it appropriate to refer to some information as "data"?* Etymologically, a datum is something "given." In the philosophical tradition following René Descartes, this property of "givenness" came to be understood as a kind of "objective presence," as in something "given to perception." Yet, as pragmatist philosophers from William James to Wilfred Sellars to Richard Rorty have pointed out, this felt sense of "objectivity" is illusory, bordering on self-deception. *What else could it mean, then, for something to be "given"?*

To take a contrasting example, in surveying and cartography a "datum" is a physical location that serves as a common reference point, allowing measurements taken from different positions at different points in time to be coordinated with one another in geometrical space. This usage gives us a clue as to what it might mean to take an item of information as "given" — a geodetic datum is "given" in the sense that it is collectively agreed upon and established as a convention, not in the sense that it is subjectively self-evident or objectively present in the world. Now, suppose that we consider the "givenness" of research data in the same light: we might say that an item of information counts as a "datum" when it is *accepted as a premise* for some further claim or assertion. Not only does this definition dispense with subject/object ontology, but it also seems to fit the actual criteria that researchers use in distinguishing "data" from other kinds of information. This can be shown by considering the negative case: it would be highly unusual for a researcher to refer to some information as "data" if either (1) the accuracy or credibility of the information is in doubt or (2) the information is not of any further interest once it is known. On the other hand, researchers routinely take as "data" items of information that have been reported by others, often simply because this information has been compiled by reputable persons or published by a reputable source. What I have tried to show in this brief analysis is that the notion of "objective presence" is no way essential to the concept of "data" as it is used in the everyday discourse of research — this notion is merely an accidental accretion, motivated by a philosophical error.

A Model of Argumentative Reasoning

From the perspective taken here, researchers produce certain items of information as "data" in order to build a chain of reasoning toward one or more interpretive

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claims. When I say that data are "produced," I do not mean to imply that they are (routinely) invented or manipulated by researchers. Rather, data are "produced" when certain items of information are selected, displayed, and submitted to public scrutiny as a basis for further claims. To stand as "data," these items of information must be *taken as true*, not only by the researcher, but also by others in the research community and other target audiences. If the credibility or relevance of this information falls into doubt, it will no longer be accepted as "data," and the network of interpretive claims that depend upon it will also be cast into doubt.

The Toulmin model of argument gives us a way of graphically representing the inferential relations that hold between various data and the claims contingent upon them.[14] The most basic diagram contains two nodes: a *datum* (D) and a *claim* (C).

D ⟶ C

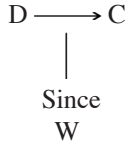
The relation between a datum and a claim can be expressed in two ways:

D, *so* C

or

C, *because* D.

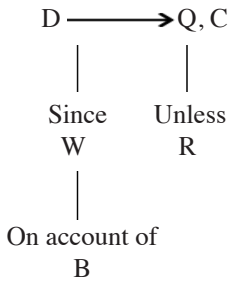
Once a datum-claim pair is identified, we can ask about the *warrant* (W) connecting them. A warrant is an additional piece of information that supplies the inferential link between the datum and claim. In other words, a warrant is a "reason" that may be given in support of the assertion that the claim follows from the datum.



The relation of warrant to datum and claim may be expressed as follows:

D, *so* C, *since* W

Even when the warrant is made explicit, the inferential link between the datum and the claim may be open to challenge in various ways, requiring further assumptions and qualifications to be explicitly stated. The Toulmin model of argument supplies three additional terms to identify such assumptions and qualifications: *backing* (B), *modal qualifier* (Q), and *conditions of exception or rebuttal* (R). The full diagram is as follows:



doi: 10.47925/2014.335

There is not space here to elaborate on how I see the Toulmin model as a way forward for qualitative methodology. I introduce it to make a final point about the usefulness of an analytic-pragmatist perspective for escaping the hold of Cartesian dualism in qualitative methodology. Using the Toulmin model, we can think of research as a practice of *claims-making* within a Sellarsian "space of reasons." The model itself contains no ontological presuppositions. The terms in the model (datum, claim, warrant, and so forth) get their meaning from the inferential relations that hold among them — relations that are essentially "grammatical" (in Wittgenstein's sense), not ontological. Accordingly, the same item of information could function as a datum, a claim, or a warrant, depending on the argumentative context.

The shift from Cartesian epistemology to argumentative reasoning opens up qualitative research methodology by denaturalizing the standard view of research as a linear four-stage process. Research thereby becomes "conversational" (in Rorty's sense), while upholding traditional social-scientific commitments to rigorous thinking and public criticism. It remains to be shown how researchers can make use of argumentative reasoning to reenvision research practices, but I hope to have given an indication of how analytic-pragmatist thinking can be put to work in pursuit of more critical and more accountable ways of knowing.

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1. Stephen E. Toulmin, *The Uses of Argument* (New York: Cambridge University Press, 1958).

2. Ibid., 9–10.

3. Celine-Marie Pascale, *Cartographies of Knowledge: Exploring Qualitative Epistemologies* (Thousand Oaks, CA: Sage, 2011). This work will be cited in the text as *CK* for all subsequent references.

4. This metaphysical view is rightly attributed to seventeenth-century philosopher René Descartes, hence, "Cartesian dualism." See René Descartes, *Selected Philosophical Writings*, trans. John Cottingham, Robert Stoothoff, and Dugald Murdoch (New York: Cambridge University Press, 1998), 110–122.

5. See Richard Rorty, *Philosophy and the Mirror of Nature* (Princeton, NJ: Princeton University Press, 1979).

6. See Robert B. Brandom, *Perspectives on Pragmatism: Classical, Recent, and Contemporary* (Cambridge, MA: Harvard University Press, 2011), chap. 3.

7. Wilfred Sellars, *Empiricism and the Philosophy of Mind* (Cambridge, MA: Harvard University Press, 1956/1997).

8. See John McDowell, *Having the World in View: Essays on Kant, Hegel, and Sellars* (Cambridge, MA: Harvard University Press, 2009), chap. 14.

9. "The essential point is that in characterizing an episode or a state as that of *knowing*, we are placing it in the logical space of reasons, of justifying and being able to justify what one says," Sellars, *Empiricism*, 76.

10. Alecia Y. Jackson and Lisa A. Mazzei, *Thinking with Theory in Qualitative Research: Viewing Data Across Multiple Perspectives* (New York: Routledge, 2012). This work will be cited in the text as *TT* for all subsequent references.

11. See, for example, Patti Lather, *Getting Lost: Feminist Efforts Toward a Double(d) Science* (Albany, NY: SUNY Press, 2007); and Elizabeth A. St. Pierre, "A Qualitative Data Analysis after Coding" (paper presented at the AERA Annual Conference, April 2011, New Orleans, Louisiana).

12. St. Pierre, "A Qualitative Data Analysis after Coding," quoted in *TT*, 11.

13. The notion of "grammar" invoked here derives from Ludwig Wittgenstein, who writes suggestively, "Grammar tells us what kind of object anything is." Ludwig Wittgenstein, *Philosophical Investigations*, 3rd ed., trans. G.E.M. Anscombe (Malden, MA: Blackwell, 2001), 99.

14. See Toulmin, *The Uses of Argument*, chap. 3.

doi: 10.47925/2014.335