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# Clearing Away Assumptions through Philosophy and Research

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### ABSTRACT

This article illustrates one way in which philosophical inquiry and empirical research can be combined to illuminate processes like learning and social identification. Over the past twenty years, my empirical work in classrooms and communities has drawn on philosophical discussions about how knowledge is interconnected with social relationships and how we should conceptualize multiple levels of explanation. Both empirical research and philosophy can be done in various ways, and I offer no comprehensive account of how the two relate. I focus instead on one central goal of my work—to clear away assumptions that commonly limit our view of human activity and to offer alternative conceptualizations that open new pathways for thought and action. In pursuing this goal I have drawn on philosophical accounts of knowledge, identity and scientific explanation, as well as on philosophical methods for interrogating assumptions. My empirical analyses also provide philosophers useful cases to think with. Empirical research enriched by philosophical insights and methods can combine tools from both traditions to clear away unproductive assumptions and advance our understandings of the human world.

KEYWORDS: empirical research, methods, social identification, knowledge and context

In this essay I present two examples from my empirical work to show how a combination of philosophical and empirical approaches can enrich both. I have done research on social identification in high school, exploring how teachers and students create identities that emerge, solidify and change across time, and I have studied how academic learning occurs through the same discourse as social identification in classrooms (Wortham, 1992, 2001, 2002, 2006). I have also done research on the emergence of models for identifying Mexican immigrants in a town with no history of Latino presence, exploring how individual, local and national processes come together to facilitate the personal and academic trajectories of immigrant children (Wortham, Mortimer & Allard, 2009; Wortham, Allard, Lee & Mortimer, 2011; Wortham & Rhodes, 2012, 2013). Both these projects have typical social scientific goals—to contribute to theory development by describing processes like learning, social identification and stereotyping, and to provide empirical evidence that exemplifies these processes and warrants knowledge claims. But I also draw upon and contribute to philosophical discussions of learning, social identity and social scientific explanation.

Philosophy can contribute to social scientific research in at least three ways. First, I select topics that have philosophical significance—like the question of whether the power relations and interpersonal struggles that inevitably happen in academic discussions undermine the knowledge claims and learning that often occur through the same talk. Some phenomena engage questions philosophers have identified as issues of enduring human concern, and empirical research on these phenomena can be particularly illuminating both to social scientists and to philosophers. Second, I draw on philosophical accounts in conceptualizing the processes I am studying. Philosophers' arguments about knowledge and learning, for example, can help a social scientist formulate accounts of academic discussion more clearly. Third, I use philosophical methods designed to interrogate assumptions that often lie behind social scientific conceptualizations. My work in classrooms explores connections between knowledge and power, and both commonsense and social scientific accounts of these processes often make problematic assumptions. Philosophical methods can help uncover such assumptions and improve social scientists' arguments.

Social scientific research on topics of philosophical concern can contribute to philosophy in at least three ways. First, many philosophical arguments explicitly or tacitly rely on claims about how humans function, and empirical research that substantiates or invalidates these claims can inform those arguments. Second, real empirical cases can be useful examples for philosophers to think with. Sometimes simple hypothetical examples are most appropriate, but confronting the complexities of an actual case can also be productive. Third, philosophers can read empirical work as a means for provoking philosophical insights, alongside other methods like reading others' philosophical arguments, having conversations, and related activities that develop and sharpen ideas. The sections below use two examples from my research to illustrate these six ways in which philosophy and empirical work can enrich each other.

### Tyisha the Beast

The first example comes from my research on "great books" discussions in an urban American high school (Wortham, 1992, 2006). The curriculum for the ninth grade English/history class discussed here included many excerpts from original sources, including Aristotle, Plutarch, Cicero, Hammurabi, Shakespeare, Steinbeck and Rand. The curriculum was organized around issues of enduring concern. For example, what is the appropriate relation between an individual and society—should the individual alter his or her preferences to meet the needs of the society, or vice versa? What is the appropriate relation between the government and the governed, and when is one justified in fomenting revolution? In any given unit the teachers assigned readings that articulated different answers to the focal question, and they helped students to understand the authors' arguments and defend their own positions.

The example considered here comes from a class discussion about Aristotle's claim that "he who is unable to live in society, or who has no need because he is sufficient for himself, must be beast or god" (Aristotle, *Politics*, 1253a, line 29). The teachers want students to understand Aristotle's argument that humans are essentially interdependent, contrasting his view with readings on strong individualism (Ayn Rand) and strong collectivism (ancient Sparta, as represented in Plutarch). This discussion took place during the unit on appropriate relations between an individual and society, and they offered Aristotle as an example of a plausible intermediate position between the extremes—a position in which individuals have their own rights and capacities, but in which they are social beings whose true nature can only be realized when living in a political unit with others.

As they discuss Aristotle's account, one of the two teachers suggests that humans are different from animals ("beasts") because we have goals. A student named Tyisha challenges this claim, pointing out that animals have goals also. Tyisha has throughout the year been an active participant in class discussions, making her own arguments in ways that the teachers typically encourage. In the month leading up to this discussion, however, Tyisha has begun to annoy the teachers, who believe that her contributions are more often leading the class off track. Their discussion of her argument, it turns out, contributes both to Tyisha's emerging social identity and to the students' understanding of Aristotle.

- 525 **Tyisha**: Mrs. Bailey? I- I have to <u>dis</u>agree [class laughter]
  - T1: can I- can I finish this before you disagree, okay. the idea that he's putting out here is that they- they <u>have</u> goals, and that they can in discussion decide the best way to accomplish their goal. now, Tyisha what's your

530 disagreement?

- **Tyisha**: becau(hh)- because if a- like- if my- o<u>kay</u>, if my cat want to- um you know to get to the top of something, you know, he might sit there and be [3 unintelligible syllables] and he'll sit there and try <u>e</u>veryday. and then finally he will do it, that was the <u>goal</u> to try and get up there. he had a <u>goal</u>.
- 535 T1: okay (1.0) he's got a [goal but St1: [was his goal really necessary? [laughter from class] T1: let's- let's- let's take what- (3.0) let's take what your cat's doing that every day he sees that- counter that he wants to get on, and every day when he passes that counter he tries to get up there. that's a goal. okay] =
  540 St1: ]yeah. T1: = how is that different than your goal, the goal that you might have
  - T1: = how is that different than your <u>goal</u>, the <u>goal</u> that you might have had last night when you had this reading, or-[some chattering]

Tyisha: °I don't know°

Tyisha makes a good argument: animals have goals, and thus Aristotle's criterion for

humanness cannot be this simple. The teacher acknowledges this at line 539.

Consider the rhetorical form that begins at line 541. I have called these "participant examples," examples in which a participant in the conversation him or herself becomes a character in an example (Wortham, 1992, 2006). Participant examples bring together the subject matter of a conversation—in this case the discussion of Aristotle, humans and "beasts" that do not have true human sociality—and aspects of the relationships among participants. As Tyisha's case will illustrate, the resulting interconnections among cognitive and relational processes provide an occasion to rethink our accounts of knowledge, learning and identity. Participant examples are both powerful and dangerous, because they use students' own experiences and identities to illustrate aspects of the subject matter.

As the discussion continues, students and teachers pursue the example and begin to build connections between academic content and relationships in the classroom.

550 St2: humans can do more things than cats can do, like they can build **Tyisha**: no that's not-just a goal. my goal is to win in Nintendo and [laughter by a few girls in the class] St2: that's your goal? **Tyisha**: it's a go:al, so T1: okay maybe winning at Nintendo is like your cat's goal of getting on top of 555 the-Tyisha: right T1: the- the counter. but aren't- don't we have more ] =St: 1 better T1: = long ranged goals than your cat getting on top of the counter, or you 560 winning Nintendo? **Tyisha**: but I'm just saying they're goals; you said animals can't have goals or something, so I just told va I disagree. T1: okay, but can we- can we qualify that then. 565 Tyisha: yeah. T1: can we qualify that and say that man (2.0) doesn't just have immediate goals, but also has- long range goals.

The teacher has acknowledged Tyisha's claim that animals have goals, but she goes on to argue from lines 555-567 that, while humans and animals both have goals of one kind, humans also have a second, distinctive kind of ("long range") goal. By making a valid claim about animals' goals, Tyisha has caused the teacher to revise her argument. But at lines 551 and 562-563, Tyisha continues to pursue her argument against the teacher's earlier suggestion, pointing out that animals have goals just like humans—without acknowledging that the teacher has changed her position and is now distinguishing between types of goals.

Then a second teacher in this classroom expands the participant example, trying to show that Tyisha herself has both beast-like and distinctively human goals.

T2: what <u>goal</u> did you have in mind this morning, <u>even</u> when you went to sleep. Tyisha: [laughing] I didn't h(h)ave o(h)ne.

- 580 T2: sure you did. didn't you- didn't you have the goal you had to wake up at a certain <u>time</u>, get <u>dressed</u> in a- by a certain <u>time</u>, get to a place Tyisha: yeah that's true.
  T2: so you had goals even before you s]tarted Tyisha: ] but not in the summertime. I
  585 just got up, see, just like T2: ah, and in summertime when you got up because you <u>had</u> to come to school
  - **12**: <u>ah</u>, and in summertime when you got up because you <u>had</u> to come to school what was your goal or was it to sleep until three in the after<u>noon</u>? or to get up and play with your friends?
  - **Tyisha**: the same goal my cat had, to go to <u>sleep</u>, and get up and <u>eat</u>.
- 590 T1: ahhh, isn't that interes]ting? [rise-fall intonation contour; "mocking" effect]T2: ]ahhhh

At line 584 Tyisha continues to pursue her earlier argument, that animals and humans are similar and have the same kinds of goals. In order to make this argument, she continues the participant example and describes herself as having only beast-like goals, things like sleeping and eating (line 589). Instead of accepting her argument, or continuing to argue that Tyisha in fact has both beast-like and uniquely human goals, the teachers instead choose to tease her, pointing out at line

590 how she has described herself as less than fully human. But then they go

beyond teasing.

ame goals as her $(1.0)$ ] =
] cat had
cat had. wow.
o you are like an animal.
o you <u>are</u> like an <u>a</u> nimal.
a: I'm not saying, I just don't have somewheres to be at.
ay, but that's not- <u>don't</u> con <u>fuse</u> the issue. <u>one</u> point at a <u>time</u> ,
yisha. you throw out seventeen things and then- nobody can even begin
address any of these things.
ss [hissing laughter]

At lines 596-597, a student and the first teacher make the point explicitly: although most humans have both beast-like and uniquely human goals, Tyisha herself is more like an animal who only has beast-like goals that satisfy basic drives.

Tyisha made a good argument, but then she took it too far. It could be that the teachers are merely teasing her, to end this line of conversation and return to the main topic. The fuller analysis of this interaction and the class over the academic year shows that this is not just teasing, however (Wortham, 2006). The teachers explicitly characterize Tyisha as a bad and disruptive student, as T1 does at lines 599-601, several times both before and after this discussion of Tyisha's cat. The teachers regularly describe her as a student who pursues her own ideas, makes inappropriate comments and takes the group off track. In other words, they characterize her as a "beast" with respect to this classroom community. She does not make the sacrifices necessary to participate productively in community activities (ie, listening to others and giving them space to make their own contributions), and thus she does not participate collaboratively in a social group in ways that Aristotle considered natural for humans.

I am arguing that central academic idea in this conversation—the concept of beasts as not being fully human because they do not participate in society—describes Tyisha's own position in the social ecology of the classroom. She becomes an outcast because in the teachers' eyes she pursues her own beast-like goals (joking around, avoiding work, etc.) and refuses to collaborate with others in productive academic activity. The example of Tyisha's cat, introduced above, is one central node in the trajectory of events, across several months, through which Tyisha comes to enact the position that Aristotle and others describe as a beast or outcast. More space would be required to describe the events across which Tyisha's identity as an outcast emerged—see Wortham (2006) for the full analysis.

Teachers and students intertwine academic content and relational positions as they discuss this participant example. Participant examples are speech events that deliberately bring together the academic subject matter of a conversation with the relational positions of participants (Wortham, 2001, 2002, 2006). Speakers normally intend such examples to aid understanding, not to position participants relationally. But participant examples nonetheless often do relational work, sometimes as a double entendre in which comments about the participant's character in the example become characterizations of the participant him or herself. In the example of Tyisha's cat, the teacher positions Tyisha as less human than others—as pursuing more rudimentary desires in the way animals do—and as an outcast from the productive group of students who engage in mutually respectful academic discussion.

More than a double entendre is happening in this classroom, however. These teachers and students deeply interweave cognitive and relational dimensions of their activity. The academic model from the curriculum, about relations between an individual and society, becomes inextricable from the relational organization of the classroom, into prosocial students who (the teachers sometimes say explicitly) are likely to succeed academically and "beasts" or outcasts like Tyisha who are not likely to succeed. Cognitive and relational components become inextricable as students and teachers build academic models about the curricular topic of individual and society in part by using the social identities of students like Tyisha as resources, and as they simultaneously build social identities for Tyisha and others in part by using concepts drawn from the curriculum. Tyisha might well have been identified as a disruptive student in a class that had other subject matter, but her emerging position as a "beast" who does not make the sacrifices necessary to live cooperatively with other humans was only possible as teachers and students imported categories from Aristotle and related readings. Students might well have understood Aristotle and the larger curricular theme about individualism and collectivism in a class that did not include Tyisha, but her emerging social position provided a key resource through which these students built their understandings across several months.

Participant examples were key speech events both in students' emerging understanding of the curriculum and in Tyisha's emerging social identity. In this classroom Tyisha was the focal student in eight extended participant examples that I observed from October through April, and these examples all used concepts from the curriculum to characterize her relational position while simultaneously using her social identity to help students understand curricular themes. Across many months, teachers and students used academic resources from the curriculum to build Tyisha's social identity, and they used her emerging identity to develop their understanding of the curriculum. Thus social identification, power relations and interpersonal struggles became resources for and were woven inextricably into subject matter, argument, evidence and academic learning.

## Combining Philosophical and Empirical Inquiry

This empirical analysis of Tyisha's classroom engages issues of philosophical concern. Can knowledge and learning be separated from the social activities in which they are inevitably embedded, such that philosophers' accounts of knowledge claims, evidence and rational activity can justifiably ignore social identification, power relations and interpersonal struggles? If so, do relational contexts have any important effects on cognitive activities and knowledge claims? If not, if power relations and interpersonal struggles infect all cognitive activity, how can we make distinctions among more and less warranted knowledge claims? Are sociopolitical factors ever intrinsically related to learning, such that the knowledge learned is intertwined with and partly constituted by social identities and power relations, without this undermining their epistemic value? My empirical research in Tyisha's classroom engages such questions. I have not answered these questions

definitively, nor have I developed the more extensive citations and arguments philosophers would expect in defending an answer. But I provide extended cases to think with, and I explore the philosophical questions while analyzing these cases. In doing so I have drawn on philosophical resources in at least the three ways introduced above.

First, philosophical considerations led me to select the central topic of my empirical analysis. My interest in knowledge and learning led me to work in schools, institutions officially dedicated to cognitive activities. And my familiarity with philosophical theories of induction and argumentation led me to focus on examples—rhetorical forms that can manifest type-token relationships and can be crucial to philosophical arguments. I was interested in exploring how knowledge is deployed in action, and examples became an empirical site for studying how people do cognitive work in practice. A central part of my extended analysis of Tyisha and her classroom (Wortham, 2006) traces the learning that students do across the year, in part through their discussion of examples. Once I came to see how participant examples can create social identities, power relations and interpersonal struggles, I began to explore interrelations between cognitive and relational processes. I ended up arguing that students' social identities become essential resources for learning. I pursued this topic because I was familiar with philosophical debates about whether social identities and power relationships undermine knowledge, and I recognized an opportunity to investigate how a paradigmatic academic activity (making arguments using examples) might be interwoven with complex relational ones.

Second, in formulating my research questions and doing the analyses, I have

drawn on philosophical accounts. I had read philosophers from Plato (1992) to Kant (1997) and beyond arguing that we must not confound knowledge and rational argument with the noncognitive activities that surround them. I had read philosophers like Wittgenstein (1953) who urge exploration of cognitive activity as it is actually practiced. There has also been substantial work on the relations between power and knowledge, the status of knowledge claims given their situatedness within social contexts and activities. I had read Habermas (1968/1971) on knowledge and human interests and Foucault (1994/1997) on power/knowledge, and I consulted such work as I analyzed the interweaving of cognitive and relational activities in my classroom data. I did not do the empirical research in order to prove any philosophical claim, but I drew on philosophical accounts of relevant concepts in order to conceptualizing topics like knowledge and identification more adequately.

Third, I have been inspired by systematic philosophical argumentation as I interpret my findings. Exemplary philosophers insist on clear definitions, consider alternatives and demand explicit grounds for belief. In interpreting my findings I have tried to engage in these practices. For instance, I have not claimed that the intertwining of classroom knowledge claims with social identification, power relations and interpersonal struggles necessarily undercuts the truth of those claims. This cannot be an either-or issue, with knowledge either being essentially separate from social contexts or being inevitably invalidated by them. As Robertson (2009) and other philosophers have argued, we need a more complex formulation of the interconnections between argument, evidence and knowledge claims, on the one hand, and the social contexts in which they occur. I do not provide a full philosophical argument myself—because my primary goal is to analyze the empirical data and give a social scientific account of the processes occurring—but I do strive for conceptually nuanced accounts of knowledge, learning and context by employing some philosophical methods.

In these ways philosophy has been important to me as I have tried to move beyond binary accounts of knowledge and its social contexts, as I work to make sense of how social identification, power relations and interpersonal struggles interweave with subject matter, argument, evidence and academic learning. I hope that my work can also be useful to philosophers in at least three ways. First, as Philips (2009) describes, philosophical arguments often depend on claims about how the world works, and empirical research can substantiate, falsify or complicate such claims. Philosophers working on perception, for example, must consider the psychobiology of perception, and if scientific accounts disprove typical philosophical assumptions then philosophers should adjust. Social science less often offers definitive accounts of the human world, but we have established some robust findings. Human semiotic activities inevitably involve several layers that include both cognitive and relational processes. Even apparently pure academic activity is always linked to relational context in systematic ways. My empirical demonstration of complex connections between academic knowledge and social identification does not answer the philosophical question about the general relation between knowledge and the relational contexts in which it is inevitably embedded. But

philosophical arguments about knowledge and learning might productively consider my examples.

Second, empirical research provides real, complex examples that can help philosophers develop arguments. Philosophers often use hypothetical examples, or decontextualized versions of real examples. Sometimes simplicity is appropriate in an example. But complexity can also be philosophically useful. The real world is complex in a way that more typical philosophical examples cannot be, and the presence of unexpected patterns in the world can encourage philosophers to reconsider assumptions and search for alternative explanations. Examining a fuller empirical description of a real case can confront philosophers with dimensions that they had not considered. Systematic empirical inquiry demands rigor in a different way than systematic philosophical argumentation, but empirical rigor can yield insights into faulty assumptions and useful alternatives. Philosophers most often discipline their inquiry by demanding grounds for belief and by considering alternative positions. It could be useful to add systematic consideration of empirical observations as another approach.

Third, empirical research can give philosophers new ideas about issues of philosophical concern. Philosophers generate insights in various ways, including reading philosophical texts, performing thought experiments and engaging in conversation, but empirical research provides another useful method. Research on what people actually do can suggest alternative assumptions about fundamental topics, both by asking people for explicit accounts of learning, identity and other topics, and by revealing tacit patterns in their behavior. Such work can give philosophers a new angle on established problems. Some philosophers already do this by reading empirical research, of course, but philosophically-informed empirical research might be more likely to yield such insights.

#### **Beyond Macro and Micro**

Space limitations prevent me from developing a second example in as much detail, but I will briefly describe how I have also engaged philosophical questions about levels of explanation in my empirical work. In order to make visible the interrelationships between academic learning and social identification in Tyisha's classroom, I had to explore an intermediate "timescale" (Lemke, 2000), a level of activity not reducible either to broad social regularities or contingent actions—the establishment of cognitive models and social identities in this classroom over several months. Tyisha was a black girl, and race and gender mattered in her classroom, but these more enduring demographic categories had particular inflections in the local models that teachers and students developed over the year. In order to understand what the students learned and how they were identified, I traced the emergence, crystallization and sometimes disruption of local models about types of students, models that extended spatially only to this classroom and temporally to this academic year. For example, one teacher developed a model of "promising girls and unpromising boys" that was somewhat unique to this classroom—she talked and acted as if the boys were academically unpromising, a gender stereotype stronger than one would normally find in American schools. The situation with Tyisha and one of the boys was even more complicated, because these two students became counterexamples to the teacher's classroom-specific local stereotype. She treated all other girls as promising, but over time Tyisha became an unpromising girl—and this was a locally emergent pattern, specific to this classroom and this student. My analysis attends to three levels of explanation: longstanding, institutionalized models and constraints that have been established over decades and centuries, local models and habits that emerged over days and months, and discrete actions and events that occurred over seconds and minutes. Resources from all three were essential to the social identification and academic learning happening in this classroom.

Many social scientists uncritically assume that "macro" or "structural" factors like institutionalized hierarchies or group stereotypes constitute one coherent level of explanation. Many supplement their account of "structure" with "agency," arguing that longstanding structures constrain actions while actions constitute and sometimes transform structure. I have borrowed philosophical insights and methods to argue that such an account unproductively combines heterogeneous processes that do not form one or two coherent levels of explanation (Wortham, 2012). The real problem is not how to combine "macro" and "micro," "structure" and "agency," but how to determine which of many potentially relevant levels of explanation in fact play a role in any given case and how processes at these levels interrelate. As Latour (2005) describes, heterogeneous resources from various temporal and spatial scales are assembled in contingent ways to facilitate processes and events. Instead of assuming that preexisting structures, processes or resources—like social class, or habitus, or the unconscious—are always relevant to explaining one type of phenomenon, we must instead determine the contingent configuration of resources relevant to specific cases. Relevant resources will vary from case to case, but explanations for almost any focal phenomenon on the human world will require several resources from across heterogeneous scales (Wortham, 2012).

My work on distinctive local models of curriculum and identity in Tyisha's classroom helped me see the importance of moving beyond macro and micro. because distinctive local models that emerge across months are neither "structure" nor "agency" (Wortham, 2006, 2011b). In a subsequent project I am doing ethnographic research that explores these issues, in a community that has only recently become home to thousands of Mexican immigrants. This is a "New Latino Diaspora" community, where longstanding residents are less familiar with Latinos and where models of ethnic identity are less entrenched. We have studied newspapers, businesses, social service organizations, government, schools, police and other contexts. We hope to understand how models of group identity and individual developmental trajectories are emerging in a context undergoing rapid historical change. As one component of this project, I have explored how resources from heterogeneous scales influence outcomes like the Mexican immigrant community's historical trajectory over decades or an individual immigrant child's years-long pathway through educational institutions.

I will mention two lines of research that are allowing me to explore philosophical questions about heterogeneous levels of explanation and the contingent combination of resources from various temporal and spatial scales. First, we have followed narratives about immigrants as they circulate across the town (Wortham, Allard, Lee & Mortimer, 2011; Wortham & Rhodes, 2012). Most social scientific work on narrative takes the speech event as the relevant unit of analysis and interprets patterns in that event with respect to more widely circulating (often "structural") factors. We have instead followed chains of narrating events, as the same story is repeated and modified across narrators. This allows us to trace the intermediate-scale process of heterogeneous group stereotyping, as narrators from different backgrounds change the sociopolitical presuppositions of a story by modifying their characterization of Mexicans across retellings that occur in town. In this work we examine how several relevant processes interconnect: moment-to-moment negotiation of narrating events among narrators and audience, historical transformations in immigrant and other ethnic communities in the town over several years as residential and migratory patterns shift, changing media and policy portrayals of Latinos over the past decade in the U.S., and stereotypes and institutions designed to characterize Mexicans and restrict their movement that have emerged over the past century.

Second, we are analyzing one immigrant child's developmental trajectory as she moves through schools and community over the past decade (Wortham & Rhodes, 2013). We attend to processes and resources from multiple scales in order to explain her pathway. The analysis begins with a videotaped event in her kitchen, in which her father contrasts many working class Mexicans' avoidance of reading with his daughter's incessant reading in English. This event presupposes longstanding contrasts between Mexico and the United States, between the "first" and "third worlds." It also builds on emerging differentiation within the family, as parents who immigrated as adults are positioned differently with respect to English literacy than their children as those children move through American schools. We place this account in the context of town where the Mexican community has changed dramatically in size, economic activity and family composition over the past decade. It matters that this town is not located in areas of traditional Latino settlement in the U.S., because of the relative openness to heterogeneous identities and pathways for Latino youth (young Mexicans in this town have more flexibility to define themselves in nontraditional ways than would be the case in areas of traditional Latino settlement like Texas). It also matters that this community has changed dramatically over 15 years—moving from a community of bachelors and fragmented families to one of intact nuclear families with young children. In describing the resources and processes relevant to understanding one girl's developmental trajectory. I engage the philosophical question of how to combine heterogeneous resources and scales in an account of human development. Philosophers have written about levels of explanation, often arguing that we must go beyond simple folk accounts that locate relevant explanations at one or two levels (Wimsatt, 1994). My work in the New Latino Diaspora focuses on the diverse networks of heterogeneous resources that become relevant in particular cases, arguing against simple universal theories of development or social transformation.

## **Conclusions**

In this work on moving beyond macro and micro to heterogeneous resources and levels of explanation, and in my work on interconnections between social identification and academic learning, I use some philosophical tools in my attempt to open new ways of understanding the human world. My work on academic learning tries to move beyond simple distinctions between social identification, power relations and interpersonal struggles, on the one hand, and subject matter, rational argument, evidence and academic learning on the other. My work on contingent local patterns in the New Latino Diaspora tries to move beyond simple accounts of structure and agency. I do not intend merely to describe new patterns in how familiar categories of things work. Empirical description is useful, and it is one of my goals. But I also hope to provide alternative ways of conceptualizing important human processes. Academic learning and social identification are often seen as extrinsically related, for example, but describing how deeply they can be interwoven offers an opportunity to rethink both social scientific and philosophical accounts of these processes.

New insights demand conceptual innovation as well as empirical description, and in my work that conceptual innovation depends in part on philosophical ideas and methods. My goal is to disrupt or reframe our understandings of learning, development, social identification, levels of explanation and other processes. I do this by combining philosophical and empirical approaches. I have argued elsewhere that both philosophers and researchers should employ various approaches and use the affordances of heterogeneous kinds of analysis, so I am not arguing that everyone should work in the same way (Wortham, 2011). But I am pursuing one way in which philosophy and empirical research can work together and strengthen each other. This does not simply involve using philosophy to interrogate assumptions and then empirical research to analyze data. The activity of uncovering assumptions, providing counterexamples and exploring alternatives requires a more nuanced combination of techniques and habits drawn from both philosophy and empirical research.

# References

Foucault, M. (1994/1997). Power. In J. Faubion (Ed.), *Essential works of Foucault, Volume 3.* New York: The New Press.

Habermas, J. (1968/1971). *Knowledge and human interests*. Boston: Beacon Press.

Kant, I. (1787/1997). *Critique of pure reason*. (edited by P. Guyer and A. Wood). New York: Cambridge University Press.

Latour, Bruno (2005). *Reassembling the social*. New York: Oxford University Press.

Lemke, J. (2000). Across the scales of time. *Mind, Culture, and Activity* 7, 273–290.

Phillips, D. (2009). Empirical educational research. In H. Siegel (Ed.), *The Oxford handbook of philosophy of education*. New York: Oxford University Press.

Plato. Republic. (1992). (G. Grube, translator). Indianapolis: Hackett.

Robertson, E. (2009). The epistemic aims of education. In H. Siegel (Ed.), *The Oxford handbook of philosophy of education* (pp. 11-34). New York: Oxford University Press.

Wimsatt, W. (1994). The ontology of complex systems: Levels, perspectives and causal thickets. *Canadian Journal of Philosophy, 20*, 207-274.

Wittgenstein, L. (1953). *Philosophical Investigations* (3rd edition). (G. E. M. Anscombe, translator). New York: Macmillan.

Wortham, Stanton. (1992). Participant examples and classroom interaction. *Linguistics & Education*, *4*, 195-217.

Wortham, Stanton. (2001). Interactionally situated cognition: A classroom example. *Cognitive Science*, *25*, 37-66.

Wortham, Stanton. (2002). The interdependence of representation and action. In S. Rice (Ed.), *Philosophy of education 2001*, (pp. 426-434). Urbana, IL: Philosophy of Education Society.

Wortham, Stanton. (2006). *Learning identity: The joint emergence of social identification and academic learning*. New York: Cambridge University Press.

Wortham, Stanton. (2011). What does philosophy have to offer education, and who should be offering it? *Educational Theory*, *61*, 727-741.

Wortham, Stanton. (2011b). Listening for identity beyond the speech event. *Teachers College Record*, *112*, 2848–2871.

Wortham, Stanton. (2012). Beyond macro and micro in the linguistic anthropology of education. *Anthropology & Education Quarterly, 43,* 128-137.

Wortham, Stanton, Allard, Elaine, Lee, Kathy & Katherine Mortimer. (2011). Racialization in payday mugging narratives. *Journal of Linguistic Anthropology, 21*, E56-E75.

Wortham, Stanton, Mortimer, Katherine & Elaine Allard. (2009). Mexicans as model minorities in the New Latino Diaspora. *Anthropology and Education Quarterly, 40*, 388–404.

Wortham, Stanton & Catherine Rhodes. (2012). The production of relevant scales: Social identification of migrants during rapid demographic change in one American town. *Applied Linguistics Review, 3,* 75-99.

Wortham, Stanton & Catherine Rhodes. (2013). Life as a chord: Heterogeneous resources in the social identification of one migrant girl. *Applied Linguistics, 34*, 536-553.