Toward an Intersectional Understanding of Process Causality and Social Context
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In the wake of the 2002 National Research Council (NRC) report, *Scientific research in education*, there was a lively debate among proponents and critics. The report’s focus on a more narrow definition of science around narrower and tighter notions of causality troubled many qualitative researchers. Alarmed by narrow definitions of causality that threatened to disqualify qualitative research from influence (and funding) at the Federal level, Maxwell (2004) described seven assumptions or claims that undergird the report’s arguments for experimental/causal research as the “gold standard” in educational research (see appendix for a list of all seven).

One of the central differences between “causality” in statistical studies and naturalistic or qualitative studies is that statistical studies use a theory of variance whereas qualitative studies think of causality in terms of processes. Maxwell (2004) explains:

> Variance theory deals with variables and the correlations among them; it is based on an analysis of the contribution of differences in values of particular variables to differences in other variables. The comparison of conditions or groups in which the presumed causal factor takes different values, while other factors are held constant or statistically controlled, is central to this approach to causation . . . . Process theory, in contrast, deals with events and the processes that connect them; it is based on an analysis of the causal processes by which some events influence others. (pp. 4-5)

Maxwell briefly addresses each of the seven NRC assumptions in his article. In this article, we will address one area in particular, that of “context.” We contend that context, especially the economic and sociopolitical contexts shaping schooling in the United States is insufficiently discussed or discussed too narrowly in debates about causality. These narrower views of context lead to the potential disqualification of research that attempts to link macro and micro social, political, and economic structures, depriving us of alternative and more holistic explanations of schooling outcomes.

In the absence of these alternative explanations, policies that place the onus of educational inequality on the choices and behaviors of individuals; parents, teachers, and even students, for example, receive bipartisan support through..
initiatives like school choice, teacher merit pay based on value added assessments, and pay-for-performance programs for students. Ironically, the efficacy of these policies has been challenged by empirical research, most recently in a report produced by the NRC (2011) itself.

Maxwell (2004) argues that the way that the NRC report views causality “neglects the role of context as an essential component of causal explanation.” He acknowledges that traditional notions of causality acknowledge context, but view it as a constellation of variables that need to be controlled for. In this sense, context is seen as a nuisance rather than intrinsic to the phenomenon under study. The only illustration of how Maxwell is using the notion of context is the “influence of student and classroom diversity on learning,” raising a question about how broadly he is defining context, and how such a definition can too easily be taken up by those who adhere to beliefs first advanced by Oscar Lewis (1966) that a culture of poverty is responsible for racial and socioeconomic achievement gaps (Payne, 2003).

Over the past four decades, qualitative researchers in education have expanded their understandings of what counts as context, and also how micro-level schooling contexts shape and are shaped by broader contextual factors, including politics, power, and shifts in the economy. For example, researchers have included in their assessment of context issues of racial and socioeconomic inequality, patterns of housing discrimination and segregation, within school sorting through the use of discipline, tracking and special education assignment and language policy (Ferguson, 2001; Gifford & Valdes, 2006; Hand, 2009), and the inequitable distribution of teachers and facilities (Seddon, 1995).

Moreover, mixed-methods research has extended and expanded understandings of context through the use of geographic information systems (GIS), which are able to demonstrate and display, among other things, the relationship between schooling opportunities and racial and socioeconomic neighborhood segregation (Lubienski, Gulosino, & Weitzel, 2009). And recently, epidemiologists examined panel data across several countries and found that the nations doing worst on multiple indicators of well-being, including life expectancy, levels of trust, mental illness, and educational outcomes were those that had the highest proportions of economic inequality (Wilkinson & Pickett, 2009). This research helps to advance our understandings of the ways in which economic and political inequality can exacerbate inequality in other social policy domains.

However, although most would not object to these broader views of context, the notion that these contextual forces are “causal” is still controversial. In this article, we build on this dynamic work to attend to the ways in which context informs understandings of causality. We advance a conceptualization of social context that incorporates vertical and horizontal considerations. In other words, we aim to join macro-level issues of political economy and meso-level institutions and organizations, with more micro-level examinations of the intersections of race, socioeconomic status, gender, ability, and sexual orientation. Although intersectionality, as defined as the horizontal interactions of race, class, gender, etc. has gotten significant attention, there has been less attention to how vertical levels of analysis intersect. Thus, although we support the idea of broadening the notion of causality beyond variables to include processes, we also feel that unless notions of causality are expanded beyond the case study or ethnographic level to include macro-level factors, these factors become invisible and neglected in the formulation of not only policies, but also “what works” in practice.

By lacking a rigorous way to “connect dots” beyond the local level, researchers run the risk of colluding in the reproduction of policies and practices that are, at least in part, the result of structural forces, such as the ideological hegemony of patriarchy (Bourdieu, 2001) or neoliberalism (Harvey, 2005). For instance, we have witnessed a global spread of neoliberal tenets concerning the primacy of the market over public sector service provision or public governance. These debates about causality, then, are not merely epistemological and methodological, but also political in the sense that they are frequently informed by beliefs about the relative importance of power, race, inequality, and ideology in shaping federal, state, district, and school-level school policy and practice.

Although establishing causality between micro, meso and macro events and structures is challenging, under any definition of causality, to divorce these levels from each other often leads to skewed research results and educational policies that fail to adequately address growing social inequalities. Although we do not pretend to provide an epistemological solution to this problem, we do advance ideas about how qualitative researchers can better attend to intersectional issues. In addition, we do not intend to rehearse the various epistemological arguments about positivism or review the debate over different types of causality. Maxwell (2004) and others have provided excellent overviews of this debate.

Nor are we interested in promoting an “anything goes” approach to research that ignores evidence in favor of ideology. Instead, we want to argue that current ways of thinking about causality, even those that emphasize processes over variables, encourage educational researchers to seek explanations for educational problems at the more micro, and frequently, individual, levels of analysis. We will argue that unless both notions of context and causality are expanded to include both horizontal and vertical notions of intersectionality, both qualitative and quantitative researchers will continue to seek narrow notions of “what works” only in educational policies and practices in classrooms and schools when significant “causal” factors may lie elsewhere (Labaree, 2008). Finally, we will suggest that Maxwell’s (2012) notion of process causality and Donmoyer’s (2012)
notion of “preponderance of evidence” might together serve as a starting point for providing the kind of scaffolding necessary to provide multilevel causality claims.

Causality and Context

Debates about context and causality are not limited to academics. In 2010, in the days following the tragic shootings of Representative Gabrielle Giffords and 19 others, six of them fatally, in Tucson, the mainstream media seemed unsure about how to frame the story. The dilemma was debated around issues of context and causality. Was this a random act of violence by a disturbed young man, caused by nothing other than a psychotic break? Or, pundits asked, was it “caused” by lax gun laws; an overheated, vitriolic political climate; a lack of access to mental health care; antigovernment, talk radio jockeys; anti-Semitism; or former Alaska governor, Sara Palin’s crosshairs on Rep. Giffords that appeared on her website? There was no smoking gun—no direct causal link to any of these. And yet, to insist that therefore it was a random act of violence by a disturbed young man didn’t seem to be the whole story either. Was it a coincidence that this occurred in a state known for aggressive right wing policies, anti-immigration legislation, and heated political rhetoric and among the laxest gun laws in the country? Was it a coincidence that he targeted, not a random individual, but rather a government official and that the shooter engaged in antigovernment rhetoric? And what about the fact that the Army rejected him? the community college kicked him out; yet given budget cuts and lengthy waiting lists, no social safety net is in place in the United States for people like the shooter to receive mental health care. Although there is no direct causal relationship, does that mean that nothing “caused” him to target and shoot a representative of the American government? In the world of .05 statistical significance levels, the correct answer would be that no causal (or perhaps even correlational) link can be established. But although there are technical distinctions to be made here among causality, correlation, and social prediction, framing the event as a random act absolves us of facing broader issues of social policy.

Although less speculative in nature, something similar occurs with educational researchers faced with understanding test performance among students that are mostly poor or of color. Although seldom viewed as a random phenomenon, these students’ underachievement on standardized assessments tends to be attributed to individual (or family) failure, either through lack of effort on the part of the student, or dysfunctional parental behaviors. In fact, meritocratic ideology requires the notion of individual effort as the principal cause of upward social mobility (McNamee & Miller, 2009).

Among most current bipartisan school reformers and venture philanthropists, this academic failure is more likely laid at the feet of school-level “contextual” factors, such as bad teachers, the unions that defend them, and overly bureaucratic public institutions in need of privatizing, leading them to propose policy solutions borrowed from the private sector. Although lacking any basis in evidence, this inferred causality has underwritten an entire bipartisan education reform agenda. The problem of inferred causality (which comes close to the notion of ideology) at broader levels is important, because these are often the same reformers who insist on narrow notions of causality through evidence-based practices at micro levels.

Other “causes” seldom evoked by current reformers, such as lack of access to health care, early childhood education, a certain kind of cultural, linguistic, and social capital, a living wage, etc., though, some might argue, better grounded in evidence, are given less attention (Berliner, 2006). Intersectional issues of race, class, gender, and sexual orientation are often studied by educational researchers, but even there, remedies tend to be limited to individual deficiencies, usually relating to a student’s cultural capital, or rearranging classroom or school-level factors.

For instance, social-justice oriented researchers may focus on an issue such as the disproportionate number of teacher referrals to special education of low-income, children of color. They may seek to identify issues of racism and classism at the school or classroom level, and in fact, they have documented that many children, especially Black males, are inappropriately referred based on teachers’ internalized racism/classism (Harry & Klingner, 2006).

However, it is plausible that classism and racism are also operating through global, national, state, and local level policies that result in racial and class concentration and isolation in urban neighborhoods, environmental racism/classism, bank redlining, and so forth. In this sense, behaviors in schools are partially constructed by social policies at broader levels as well as classroom and school policies and practices (Anyon, 2005; Parker & Margonis, 1996; Wilson, 2009). This suggests that even if we were to eliminate the internalized race and classism of teachers, we would likely only ameliorate a problem whose origins extend beyond the school.

Beyond the problem of micro, meso and macro levels of analysis, narrow views of causality promoted by the NRC (2002) and the evidence-based movement in Washington, D.C. raise questions about the tensions between scientific and democratic control over educational practice. Given the value-ladeness of educational practice, we should take more seriously the question of who should determine what goes on in classrooms and schools: Evidence-based “experts?” Philanthropists? School professionals? Community members?

Critical Causality?

Whether we think of the vertical intersectionality of social context as macro, meso and micro levels of analysis or the
relationship between structure, institutions, and culture, critical qualitative researchers (sometimes Cultural Marxists) have long attempted to understand the relationships among local and broader structural causality (Bourdieu & Passeron, 1990; Giddens, 1986; Willis, 1977; Wilson, 2009). Given the dramatic global shifts in the political economy from Welfare State to Neoliberal State, such an approach is crucial to understanding how the cultural level and the constitution of subjectivities is shaped by social, economic, and political forces, as well as the ways this shaping is creatively appropriated or resisted. Although adopting the adjective “critical” (or “feminist” or “postcolonial”) tends to suggest bias, it is in reality an attempt to make visible those social phenomena that mainstream research makes invisible (Hyslop-Margison & Dale, 2005).

Although seldom cited by mainstream researchers, there is a significant body of work on this problem, including research by critical ethnographers (Anderson, 1989; Lather, 2004; Marcus & Fischer, 1986), critical discourse analysts (Fairclough, 1992; Rogers, 2004), institutional ethnographers (Campbell, 2004; Smith, 2005), critical geographers (Soja, 2000), critical policy analysts (Marshall, 1997; Taylor, 1997), critical legal and race scholars (Barlow, 2003; Kelman, 1990), participatory action researchers (Kindon, Pain, & Kesby, 2007) and some mainstream sociologists (Sennett, 2006; Wilson, 2009).

In the late 1970s, British ethnographers at the Birmingham School of cultural studies were producing critical ethnographies (Willis, 1977). In the United States, Ogbu, who was later criticized for lacking a historical analysis of race, as early as 1981, was calling for a multilevel—or ecological—analysis of cultural phenomena:

Microcosmic studies (microethnographies) of classrooms, for example, may enrich our knowledge concerning how teacher pupil interaction or the politics of everyday life in the classroom acts as the immediate cause of minority-group child’s failure to learn to read. But the ecological framework suggests that these classroom events are built up by forces originating in other settings and that how they influence classroom teaching and learning must be studied if we are ever to understand why a disproportionate number of minority children do poorly in school, and if we are going to design an effective policy to improve minority school performance. (p. 23)

As Maxwell (2004) points out, notions of causality in fields such as anthropology are more process-oriented, but as Ogbu argues, at least in education, they are also generally limited to the cultural level. Tapia (2002), another educational anthropologist, has called for not only greater attention to macro-economic influences on ethnic-minority children, but also a closer cultural analysis of how communities and households cope through everyday practices with economic realities, and the affect of this on children’s academic progress. According to Tapia, the issue is not merely a one-way influence of macro on micro, but rather a reciprocal relationship in which the macro forces do not merely exert influence downward, but are implicated in the very construction of the local. Sennett (2006) and Duggan (2004) have also demonstrated that neoliberalism is not merely a political-economic phenomenon, but has documented its repercussions at the cultural level as well.

This is not just a problem that has emerged since the 2002 NRC debates. Educational researchers have long tended to seek answers to educational and social problems largely within schools and classrooms, even before evidence-based funding made it nearly the only federally funded option. Causal connections were sought between academic achievement and independent variables such as teaching methods, leadership styles, class size, school size, teacher and student self-efficacy, student resilience, and many others. In the 1980s and 1990s, micro ethnographers defined social context as the product of local social interaction and produced an important body of sociocultural classroom research (Erickson & Schultz, 1997; Weinstein, 1991). However, they were generally limited to the classroom, or at best, the school.

The Invisibility of Inferred Causality in Qualitative Research

Because it is difficult to establish causality at low levels of inference between macro, meso and micro levels of analysis, critical qualitative researchers are typically counseled to use vague language about the alleged influence of external factors. In fact, a common criticism of early neo-Marxist ethnographers, such as Willis (1977), was that they were “layering onto” their data a Neo-Marxist analysis, or that they were seeing intentionality by elites where there was none.

However, critical ethnographers countered that mainstream researchers in ignoring macro level forces created a different problem of bias. Without an explicit macro analysis, those factors beyond the school and classroom level were generally relegated to inferred causality. By ignoring the ideological and structural forces that lay outside of schools, a kind of Gramscian “common sense” took over. By ignoring current neoliberal agendas, explicitly being promoted by education entrepreneurs and new policy networks, researchers abdicate this analysis to manufactured “common sense” explanations (e.g., Our alleged lack of international competitiveness is caused by low-academic performance in our schools, rather than the corporate sector’s deficiencies, spending on war, Wall Street corruption, etc.). Without a way to directly counter these hidden inferences in our research, they tend to determine the direction of educational policy.
So, much as the mainstream media covering the shootings in Tucson preferred the apparently more objective “disturbed individual” story line, educational researchers generally fail to seek answers in those social policies or broad ecological factors that escape narrow notions of causality, and when they do, ideology or “common sense” tends to drive inferences of causality. Current notions of causality, then, especially in their more narrow formulations, serve as a deterrent to seeking solutions to education problems in those spheres in which causality is harder to establish. Like the man who lost his quarter in the shadows, but prefers to look for it under the streetlight where the light is better, narrow definitions of “causality” result in the disqualification of critical approaches to research, even though they might shed light on problems of student and school failure.

This means that structural explanations of student and school failure are less likely to drive reform than individual (e.g., resiliency) or cultural (e.g., low teacher expectations, the wrong cultural capital) factors. It is therefore likely that social, racial, or gender inequality will continue to be pursued through school—rather than social—reform. This is so, even when correlational and experimental studies of schooling, from the Coleman Report of the 1960s to more recent research, like Richard Rothstein’s (2004), find schooling not to be a very robust “treatment” for addressing poverty and social and racial inequality.

**Causality and the Evidence-Based Movement**

One of the reasons for a renewed interest in insisting that qualitative research can provide causal explanations is a return to narrower notions of causality promoted by an evidence-based movement in Britain and the United States (Bridges, Smeyers, & Smith, 2009). Although there have long been internal critiques of educational research for its lack of both rigor and relevance (Lagemann, 2000), the recent evidence-based movement is more focused on stricter notions of causality that call for randomized controlled trials and experiments. And yet there are political tensions within this movement, as policy makers and policy entrepreneurs are pursuing policies, such as charter schools, that in fact lack the evidentiary basis that the evidence-based movement champions (Lubienski & Weitzel, 2010).

This movement, originating in medicine, is prevalent in other social policy fields, such as social work, public health, nursing, and substance abuse prevention. In education, it was reinforced by the No Child Left Behind legislation’s focus on practices that are based on scientific research, the NRC (2002) report, and the National Science Council that allocated 10 million dollars per year to the *What Works Clearing House* to study and disseminate the results of experimental research. Although the relevance of qualitative research to influence policy had been long questioned, now it was under attack for lacking relevance for school practitioners as well. So-called best practices were best determined through experimental and quasi-experimental research, not qualitative research.

Qualitative research is tolerated, but disqualified as true science, because it is not viewed as providing causal inferences and the results of such studies are therefore not *actionable*, in the sense of providing guidance for educational interventions. Biesta (2007) argues, “evidence-based practice relies on a *causal model of professional action*. It is based on the idea that professionals do something—they administer a treatment, they intervene in a particular situation—in order to bring about certain effects (p. 7).” Biesta argues that such a view may be appropriate for some conceptions of medicine, but not for education. Education, he argues is not a physical interaction but rather a process of symbolic or symbolically mediated interaction. If teaching is to have any effect on learning, it is because of the fact that students interpret and try to make sense of what they are being taught. It is only through processes of (mutual) interpretation that education is possible. (p. 8)

Erickson and Gutierrez (2002) made a similar case in their response to the NRC report arguing that an evidence-based approach to educational reform that relies on technical rationality would result in standardizing practices and controlling for the very contextual variables that need to be studied. They argued that problems of student achievement were not merely technical, but rather cultural, political, linguistic, and ideological. Only by studying the affect of variables relating to community “funds of knowledge,” race, organizational culture, poverty, teacher beliefs, and public health, can effective interventions be designed. Ethnographic/qualitative methods, they argued are particularly effective at providing this kind of knowledge. Lather (2004) echoed these sentiments regarding evidence-based practice.

In short, something complicated is happening here and high stakes are involved . . . . In improving the quality of practice, complexity and the messiness of practice-in-context cannot be fantasized away. To try to do so yields impoverishment rather than improvement. That loss is being borne by the children, teachers, and administrators in our schools. (p. 768)

Lincoln and Guba (1985) foreshadowed these critiques with their proposal to replace causality with the notion of *mutual shaping*, a concept that rejects the notions of “causes” and “effects” and acknowledges the myriad influences operating in all social situations. Argyris (1996) provides a more proactive approach to rethinking causality for research aimed at changing educational practice, using an approach
similar to action research that he has termed “action science” (Argyris, Putnam, & Smith, 1985). He follows many others in arguing that the results of research based on variance causality and produced in laboratory settings or that uses decontextualizing methods are not actionable in real practice settings.

One does not enhance actionability and the type of validity that accompanies actionability by specifying the degree of variance. The finiteness of the information processing capacity of the human mind/brain makes it unlikely that it can use such precision under everyday conditions. Also, it is unlikely that the flow of events will stand still while the evaluation that is necessary to assess the linear relationship is implemented. Finally, attempts to implement the variance generalizations (based on describing, not creating, reality) can lead to conditions that will inhibit or negate the very predictions made. (p. 400)

Argyris (1996) believes that there are process regularities that can be identified in the ways practitioners solve problems or fail to solve them in ways that increase the learning capacities of organizations, and that these causal, process regularities can be studied with practitioners and taught to practitioners. Argyris argues that practitioners design theories of action that they then carry out and monitor. His notion of “design causality,” refers to the ways research can identify process regularities that can help practitioners design actions that are more likely to be successful, in the sense of resolving problems in ways that sustain organizational learning and ongoing inquiry.

This is a positive approach to the extent that it challenges the assumptions of the evidence-based movement’s conception of causality, but it does not solve the social context problem. Elsewhere, Argyris, Putnam, and Smith (1985) have used Jürgens Habermas’s theory of communicative competence to suggest that design causality might include sources of distortion in communication that emanate from broader (e.g., the media) levels of analysis. This could be a way to broaden the array of what Argyris calls “governing variables” that influence action strategies to include underlying assumptions about macro level forces. This is a promising avenue that should be pursued further.

However, we believe that legitimating qualitative research (or action research, which raises a whole separate set of legitimacy issues; see Anderson & Herr, 1999) through the claim that it too provides causal explanation (even if a different kind of causality) may be worthwhile on its own merits. However, to do so as a strategy to access a share of evidence-based Federal grants by seeking a place within the evidence-based paradigm, is mistaken. The evidence-based movement is both an epistemological and political movement. Although important critiques of the evidence-based movement have focused on epistemological issues, fewer have attempted to understand how this movement fits into a larger policy network that has helped to legitimate a narrow, high stakes accountability system, market oriented reforms, an education industry that profits from the marketing of evidence-based products, and a monopoly on decision making by scientific experts (Anderson & Herr, 2011; Sandler & Apple, 2010).

### Causality and Levels of Inference

So if we want to connect multilevel dots in our research, how should we think about causality and the levels of inference that are acceptable? After all, a major criterion for quality scholarship, whether based in science or traditional notions of argumentation and rhetoric, is the superiority of low-level inferences over higher level inferences. The statistical expression of this is the choice of significance levels that typically range from .01 to .05, which is generally regarded, somewhat arbitrarily, as the upper end of acceptable levels of inference. Our argument here is not to condone research that is nonrigorous, or that draws inappropriate inferences from thin data, but rather to suggest that too much low-inference research fails to provide a holistic understanding of social problems, which leads to policy recommendations that too often end up treating symptoms rather than broader causes.

If we think of causality as processes rather than variables and regularities, as Maxwell (2004) argues, then raising levels of inference for causality across levels may be necessary. But it involves more than raising the levels of inference. For purposes of policy analysis, it is less important, for instance, that we establish a direct causal connection between the Tucson shooter and budget cuts to mental health programs than a more indirect causality between budget cuts and higher levels of violence by those with mental health problems.

For instance, we know that social class correlates highly with academic achievement. Academic achievement rises as family incomes rise (not necessarily the other way around). Does this mean that poverty “causes” school failure for poor children? Most researchers would say no. However, although poverty does not directly cause low achievement, its effects do. In other words, there is often a series of chains of effects that result in low academic achievement (e.g., Poor neighborhoods are saddled with toxic waste, causing more asthma among poor children, causing students to miss more days of school, causing lower achievement for poor children). Moreover, poor neighborhoods experience higher rates of violent crime, HIV infection and death, percentage of population incarcerated or with felony convictions preventing their ability to vote or secure reliable employment, and homelessness. Like a trail of breadcrumbs, a chain of causes and effects lead from low achievement back to poverty, and ultimately, to structural inequality. The exceptional cases
prove the rule. This does not mean that school and classroom level reforms cannot mitigate these effects, and every effort should be made to do so. However, an exclusive focus on that level, contributes to the maintenance of the larger status quo, and an inability to see how structural inequality leads to predictable patterns in school achievement.

From a traditional perspective, these chains of causality might be viewed as mere correlations, or too high inference to assert causality, however, in depth qualitative studies of such cases could document this relationship with the kind of process causality Maxwell (2004) calls for. Causality among levels not only involves a series of inferences, but it is also reciprocal, in the sense that macro level structures affect the micro level and vice versa. Community organizers organize communities to get rid of toxic dumps, causing a decrease in asthma, causing a decrease in school absences, and so forth.

Sometimes policy effects are more directly causal—even of the “smoking gun” type. For instance, in 2004 the Federal Assault Weapons ban was allowed to sunset. This law made the use of magazines for semiautomatic weapons of more than 10 rounds illegal. As the law was allowed to expire, the Tucson shooter was able to legally purchase a magazine with 33 rounds. Had he not had access to a magazine with 33 rounds, he would have only been able to fire 10 times before he had to reload. It was when he tried to reload that he was subdued. So, assuming the law was actually implemented effectively, and that there were no unanticipated effects, one could plausibly argue that the Federal Assault Weapons ban caused fewer deaths and injuries by firearms. In fact, one could plausibly argue that this was true in this specific case, as some of the deaths and injuries occurred after the 10th round. So here an event that occurred in 2004 at the level of the Federal government caused more injuries and deaths by firearms.

Likewise, increasingly popular paternalistic, “no excuses” approaches to school reform and the education of inner-city children (Whitman, 2008) fail to consider broader policies and factors such as structural inequality, race and class segregation, flight of jobs to suburbs, environmental racism, lack of access to a living wage, health care, transportation, and so forth. (Ayon, 2005; Wilson, 2009). Instead, exclusively school and classroom level solutions typically include things like longer school days, stricter discipline, separating students by sex, teaching to the test, buffering students from their communities and so forth.

In addition, qualitative researchers, with their respect for the emic perspective of informants, sometimes confuse cultural models with reality. As Gee (1999) points out the cultural models of teachers, parents, and students often seek explanations for school failure at the cultural level rather than at the structural level (see also Wilson 2009). Gee argues that teachers, parents, and students will rarely evoke structural causes, preferring more immediate and individual ones, for their academic problems, nor are the effects of such structural causes easily observed at the micro level. Thus, these local cultural models are often reported as unproblematized findings, especially in interview studies. In the absence of qualitative research that challenges these cultural causes, we are left with ideology, prejudice and folklore to guide school reform.

Quantitative researchers can study class, gender, and race at broader levels, but the price they pay is to reduce them to variables. Although qualitative researchers also focus on class, gender, or race, and do so in more nuanced ways, they largely ignore, albeit higher inference, causal factors at broader levels. Seeking causality only within cases and at the “cultural” level too often leads to educational reforms that in one way or another seek to “make over” a student’s or family’s culture, rather than seek social policies that address the structural causes of children’s low achievement (e.g., Horvat & Davis, 2011). If we are to, for instance, trace causality all the way from global, neoliberal policies that result in a deteriorated social fabric to low student achievement in, say, a fourth grade classroom in the South Bronx, then we may need broader definitions of social context and looser definitions of causality. Given the myriad “intervening variables,” no “smoking gun” causal connection is likely possible, and thus no structural claim can be made. Although we don’t want ideology to lead our quest to connect macro-micro dots, not attending to the vastly complex task of connecting the dots leaves researchers to assert causality only at the cultural or case level.

Lowering the Bar or Increasing Multilevel Rigor?

As the NRC and evidence-based movement marginalize qualitative research, both Donmoyer (2012) and Maxwell (2012) assert its continued importance, and suggest it is also an effective complement to positivist and postpositivist approaches to educational research. Qualitative research in education has in the last four decades provided an impressive body of research that provides a nuanced understanding of the life world of schools and the emic understandings of those who inhabit them. Donmoyer worries though that “unless qualitative researchers are able to talk in cause/effect terms, they will not have much to say to a policy community focused on the question, ‘What works?’” (p. 662)

Donmoyer provides evidence that the claims by quantitative researchers about their own ability to answer such policy questions are in fact highly exaggerated. He suggests that even for quantitative researchers working in the human and social sciences, causality is a “functional fiction.” This is because although even the best quantitative research is typically rife with imperfections relating to sample sizes, return rates, selection bias, and so forth (the fiction part), it
still can provide some direction to policy makers (the function part). He argues that rather than make exaggerated claims for quantitative research, as the NRC does, that the bar should be lowered to acknowledge more realistically what both quantitative and qualitative research can reasonably provide policymakers that is useful. Lincoln and Guba (1985) have also debunked the exaggerated claims of causality put forth by quantitative researchers.

Once we understand that causality is an elusive ideal even for quantitative researchers in education, we may be able to have a more reasonable discussion of how qualitative research can connect macro, meso, and micro dots that transcend the local level. Even Donmoyer’s examples of how quantitative and qualitative data can complement each other are limited to the school or classroom level. Although it is true that practitioners tend to seek answers to “what works” at these levels, it begs a question that organizational learning theorists refer to as one’s theory of action. What if those school and classroom “solutions” are framed by faulty underlying assumptions and theories of action that are drawn from broad macro level ideologies imported from the private sector? Anderson (2009) has argued elsewhere that current tinkering with policies and practices based on faulty assumptions and little evidence-base has so far led to “what works” solutions that do not work very well. For instance, replacing high stakes Annual Yearly Progress targets with high stakes value-added assessment may shift the method but not the theory of action behind it.

And what if these macro level ideologies are promoted by a new set of policy entrepreneurs and networks that have emerged in the last few decades? Venture philanthropists and entrepreneurial organizations have appropriated many of the strategies employed by conservative foundations and think tanks in the pursuit of securing their policy preferences, such as supporting researchers and research centers sympathetic to their ideological or philosophical bent, investing heavily in marketing and promotion of ideas, developing networks with close ties to journalists and policy makers, and providing coveted multiyear, unrestricted operational funding (Demarrais, 2006; Rich, 2004; Scott, 2009). We see this philanthropic/entrepreneurial/think tank advocacy most prominently around issues such as charter schools, merit pay, vouchers, and the private management of schools—issues around which there is much debate around how to best measure and account for success (DeBray-Pelot, Lubienki, & Scott, 2007; Miron, 2010; Scott, 2008, 2009; Scott & DiMartino, 2009).

How might we establish process causality between globalization, neoliberal ideologies, those individuals and organizations that actively promote them and the shape that school practices (e.g., leadership, assessment, instruction, professional development, etc.) take when informed by these ideologies. What does this causal relationship look like? Is it a Gramscian conversion of ideology into common sense? What kind of contradictions, resistances, and accommodations occur throughout this process? How are counter discourses constructed and promoted?

In the final section we will discuss how Donmoyer’s notion of preponderance of evidence may provide some guidance in connecting macro-meso-micro dots once we adopt the notion of process causality. The scaffolding described above provides a causal and interactive flow chart from those individuals and organizations that promote neoliberal ideologies to policies and practices on the ground. Populated with data, this scaffolding can provide a research program capable of providing a complex and dynamic description of social context and process causality.

**Preponderance of Evidence**

Donmoyer suggests a way to provide greater legitimation of qualitative research to policy makers that can also provide guidance in connecting macro and micro level processes. In arguing that both quantitative and qualitative research by themselves fall short of providing the kind of certainty policy makers seek, he may also be providing some guidance in thinking about broadening notions of social context and causality. His argument that the notion of preponderance of evidence should be used to establish causality can be appropriated for intersectional, multilevel analysis as well. Referring to the evaluation studies, Donmoyer states,

The discussion in the prior section demonstrates quite clearly that, in many cases, quantitative data and analysis cannot definitively answer policymakers’ what-works question. At best, they can only create the illusion that the question has been answered. Consequently, if we want to know what works, we are forced to rely on our best estimates of what the answer to the what-works question might be. To state this point another way: Unless we are willing to be deluded by the mystification that numbers can, at times, provide, we are forced to use what my colleagues and I call a preponderance-of-evidence strategy (Donmoyer & Galloway, 2010) when determining what worked in particular settings and what is likely to work in other places. (2012, p. 670)

Beyond its utility in evaluation studies, such an approach provides an important conceptual tool for qualitative researchers who use multiple methods and research studies to establish a preponderance of evidence for their causal claims. A preponderance of evidence approach fits nicely with attempts to establish multilevel scaffolding with mutually shaping, process causal links among macro, meso, and micro levels. Without the pressure to establish causality based on variables and regularity, studies could accumulate evidence to demonstrate not only the nuanced influences of structural
forces on the cultural level, but could also sort out the contradic-
tions, accommodations, and resistances to these macro-
level forces and ideologies.

As noted above, we have strong traditions of data analy-
sis among critical researchers. The problem is that main-
stream qualitative researchers are often unfamiliar with them. There is not space to review these in any depth, but perhaps the largest strides are being made through the current popu-
laritity of critical discourse analysis and institutional eth-
ography. Critical discourse analysts have scaffolded the his-
torical and multilevel analysis of oral and written texts
though the use of intertextuality and interdiscursivity as
strategies of analysis. They scaffold relationships across
time and space by identifying the traces of other texts and
discourses at other levels of analysis (Fairclough, 1992).

Other forms of critical, feminist, and postcolonial ethnog-
raphy engage in similar strategies of analysis that involve
such scaffolding. Increasingly, many use flow charts and
other visual displays to show the flow of process causality
across levels of analysis.

Institutional ethnography, inspired by the work of
Dorothy Smith (2005), approaches a multilevel analysis by
asking the researcher to take the standpoint of those on the
receiving end of “ruling relations.” For institutional ethnog-
raphers, all research should answer the question: What orga-
nization of the world maintains the position that these people
live and suffer from, and how can my research offer insight
into that? Participatory Action Researchers push this notion
even further, arguing that the standpoint of the oppressed can
be better acknowledged by including them in all phases of
the research (Cammarota & Fine, 2008; Herr & Anderson,
2005). In one way or another, all of these researchers are
engaging in a preponderance of evidence strategy.

Where a preponderance of evidence approach might be
particularly helpful is in the meta-analysis of several studies
that attempt to scaffold process causality between levels of
analysis. Although there exist some guidelines for the meta-
analysis of qualitative research, multilevel scaffolding has
not been part of these discussions (Noblitt & Hare, 1988;
Sandelowski & Barroso, 2006). Although the practice is
increasingly common, we know that a single study—even a
major quantitative study—should never be used to deter-
mine policy decisions. However, although meta-analyses of
multiple quantitative studies are quite common and can be
effective in informing policy, meta-analyses of qualitative
studies are rare. Producing more meta-ethnographic analyses
could shed light on multilevel issues. For instance, there is
a growing number of qualitative studies of new policy net-
works (think tanks, venture philanthropy, the media, etc.)
that can be reviewed along with qualitative studies at the
school and classroom levels to better understand the rela-
tionship among macro, meso, and micro issues.

In addition, there is no reason that such preponderance of
evidence meta-analysis should be limited to qualitative
studies alone. Quantitative researchers can be allies in this
intersectional, multilevel endeavor, when they are not aimed
at “what works” in the sense of creating one-size fits all,
teacher-proof programs to be implemented with fidelity in
classrooms. Working together to connect macro-micro dots,
qualitative and quantitative researchers may together have
more legitimacy than either alone. For instance, quantitative
studies of charter schools have failed to show that in the
aggregate they achieve better achievement outcomes than
other schools. However, with the exception of ideologically
driven media spectacles like the documentary Waiting For
Superman, we have little research on their popularity. A
recent quantitative case study of Washington state electoral
data provides evidence that not only are charter schools not
shown to improve education overall, but also they may not be
as popular with the public as promoters like to suggest.

Corcoran and Stoddard (2011) noticed that the state of
Washington was the only state to have had referenda on
charter schools. Although we know that vouchers have been
defeated in referenda in several states, we know little about
how charter schools are widely perceived. In Washington,
voters defeated four referenda to expand charter schools,
but of equal importance is how different groups voted,

At the local precinct level, school resources, union
membership, student heterogeneity, and the
Republican vote share are often stronger predictors of
charter support than standardized test results. (p. 1)

One study, of course, has nothing conclusive to say about
anything. But, a preponderance of evidence approach that
includes both qualitative and quantitative studies at multiple
levels could provide us with both a nuanced and “big pic-
ture” notion of how vertical intersectionality works as macro
level policies are implemented, accommodated, resisted,
and appropriated in complex ways at the micro and meso
levels. Such studies can also provide data on how policies
are pushed upward by practitioners and the public, as well
as, expose the back story of how corporate and media inter-
ests operate to “sell” particular policies and practices.

Qualitative research that considers, takes up, and expands
notions of the intersectional contextual dynamics shaping
causality, such as the ones we have suggested in this article,
have much to contribute to the increasingly narrowed policy
debates shaping schooling and the too often narrow, micro,
or cultural examinations of schooling underperformance.

The problem is not that we do not know how to do multi-
level qualitative data analysis, in spite of the difficult issues it
raises, but rather that such research is suspect, often because
for many its use of “critical,” “feminist,” or “postcolonial”
adjectives suggests, not a more holistic, multilevel analysis,
but rather a sense that the research is biased. But the problem
of viewing process causality only at the case study level as
Maxwell does or the use of preponderance of evidence only

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for evaluation studies as Donmoyer does, perpetuates a bias toward qualitative research that largely ignores forces beyond the local case. The issue will not be resolved until we see such partial analyses as inherently biased.

Conclusion

In spite of an NRC discourse of cause and effect rigor and exhortations of evidence-based practices, nearly all of the educational reforms emanating from Washington think tanks, legislative acts and government offices are largely driven by ideology or are the result of political horse trading. In fact, many reforms like student retention in grade, reconstitution of schools, and pay for performance have a preponderance of evidence against their effectiveness.

Rethinking causality in less rigid ways might provide us with insights not only about promising school and classroom level policies and practices, but also those that are congruent with what we know about how inequalities are reproduced at broader levels, and what grassroots communities want for themselves. Over the years we have seen the battle of competing studies over bilingual education, the reading “wars,” the Texas accountability system, charter schools, and many other education policy issues. The battle of competing research studies on such policies tends to be carried on among quantitative researchers, precisely because qualitative studies have not been considered sufficiently rigorous or generalizable to establish causality, and therefore enter, in any serious way, current policy debates.

Meanwhile, at the federal, state and municipal levels, policy proliferation has been constant. For example, since 2002, when Mayor Bloomberg appointed Joel Klein to helm the city’s schools, New York City engaged in three major policy initiatives until 2010, when Klein ceded his post. These included 2002’s Children First initiative, which, among other things, attempted to standardize curriculum, retain low-performing students, and give principals more flexibility in hiring. In 2005, the system’s 32 districts were restructured into 10 regions, and in 2007, those regions were eliminated in favor of aligning schools with external partners, which were termed School Support Organizations. In the midst of these and many other centralized reforms, New York City greatly expanded its small schools and charter schools. More recently, funds from the federal level through Race to the Top have stimulated an intensification of this expansion and imposed a new teacher evaluation system.

Studying education policy today is like aiming at a moving target, and too many policies are not informed by research at all, even of the “what works” variety. However, we can provide a body of impressive quantitative, qualitative, and mixed methods studies that are not so much aimed at “what works” questions, as aimed at providing the kind of nuance that qualitative studies can provide to inform and critique ongoing policy initiatives. And if qualitative researchers can be emboldened to assert the legitimacy of their own process-oriented notion of causality, we believe this nuance can also form part of a scaffolding of causal connections between structural and cultural levels of analysis.

Appendix

The following are the assumptions and claims that Maxwell (2004) attributes to the NRC report:

1. Assumes a regularity view of causation.
2. Privileges a variable-oriented approach to research over a process-oriented approach.
3. Denies the possibility of observing causality in single cases.
4. Neglects the role of context as an essential component of causal explanation.
5. Neglects the importance of meaning for causal explanation in social science.
6. Asserts that qualitative and quantitative research share the same logic of inference.
7. Presents a hierarchical ordering of methods for investigating causality, giving priority to experimental and other quantitative methods.

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