In the second edition of Doing Educational Research, we explore a variety of critical issues and methodologies. Authors include some of the most influential voices selected from across the spectrum of career disciplines. The scholars provide detailed insights into dimensions of the research process that engage both students and experienced researchers with key concepts and recent innovations in the art of doing research.

The contributors adopt a stance that is practical as it introduces beginning scholars to social inquiry, and innovative as it transforms the boundaries of conversations about educational research. Doing Educational Research appears at a critical moment in which educational researchers are pushed to align with a pervasive scientism that embraces tenets of crypto-positivism.

The book addresses logics of inquiry, underpinning cutting-edge approaches to educational research that extend far beyond limited visions that are presented through the lenses of positivism. The chapters explore a variety of methodologies including action research, bricolage, ethnography, hermeneutics, historiography, media-based research, psychoanalysis, and conversation analysis, in a matrix of social theory, authentic inquiry, critical pedagogy, and differences in epistemology, ontology, and axiology. A diverse array of complex topics are presented in accessible forms and will compel both scholars and students.
Bold Visions in Educational Research
Volume 47

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Scope:

Bold Visions in Educational Research is international in scope and includes books from two areas: teaching and learning to teach and research methods in education. Each area contains multi-authored handbooks of approximately 200,000 words and monographs (authored and edited collections) of approximately 130,000 words. All books are scholarly, written to engage specified readers and catalyze changes in policies and practices. Defining characteristics of books in the series are their explicit uses of theory and associated methodologies to address important problems. We invite books from across a theoretical and methodological spectrum from scholars employing quantitative, statistical, experimental, ethnographic, semiotic, hermeneutic, historical, ethnomet hodological, phenomenological, case studies, action, cultural studies, content analysis, rhetorical, deconstructive, critical, literary, aesthetic and other research methods.

Books on teaching and learning to teach focus on any of the curriculum areas (e.g., literacy, science, mathematics, social science), in and out of school settings, and points along the age continuum (pre K to adult). The purpose of books on research methods in education is not to present generalized and abstract procedures but to show how research is undertaken, highlighting the particulars that pertain to a study. Each book brings to the foreground those details that must be considered at every step on the way to doing a good study. The goal is not to show how generalizable methods are but to present rich descriptions to show how research is enacted. The books focus on methodology, within a context of substantive results so that methods, theory, and the processes leading to empirical analyses and outcomes are juxtaposed. In this way method is not reified, but is explored within well-described contexts and the emergent research outcomes. Three illustrative examples of books are those that allow proponents of particular perspectives to interact and debate, comprehensive handbooks where leading scholars explore particular genres of inquiry in detail, and introductory texts to particular educational research methods/issues of interest to novice researchers.
Doing Educational Research (Second Edition)

A Handbook

Edited by

Kenneth Tobin
The Graduate Center, City University of New York, USA

and

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## CONTENTS

Foreword: Pearls of Wisdom  
*Joe L. Kincheloe*  
ix

Foreword to the Second Edition: Contributing to an Art of Educational Research  
*Kenneth Tobin and Shirley R. Steinberg*  
xxxix

### I Introduction

1 Doing Educational Research in a Complex World  
*Joe L. Kincheloe and Kenneth Tobin*  
3

2 The Much Exaggerated Death of Positivism  
*Joe L. Kincheloe and Kenneth Tobin*  
15

3 Qualitative Research in Classrooms: Pushing the Boundaries of Theory and Methodology  
*Kenneth Tobin*  
33

### II Ways of Doing Educational Research

4 Research as Bricolage: Embracing Relationality, Multiplicity and Complexity  
*Kathleen S. Berry*  
79

5 Proposing a Multiplicity of Meanings: Research Bricolage and Cultural Pedagogy  
*Shirley R. Steinberg*  
111

6 Philosophical and Historical Research  
*Barbara Thayer-Bacon and Diana Moyer*  
133

7 Researching with Children: Dialogic Approaches to Participatory Research  
*Christina Siry*  
151

8 “Can’t You Just Know?”: Critical Research as Praxis  
*Tricia M. Kress*  
167
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Author(s)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>A Multilectical Approach to Research in Inner City Schools</td>
<td>Gene Fellner</td>
<td>181</td>
</tr>
<tr>
<td>10</td>
<td>Conversation Analysis: Deconstructing Societal Relations in the Making</td>
<td>Wolff-Michael Roth</td>
<td>199</td>
</tr>
<tr>
<td>11</td>
<td>On Hermeneutics: “Over and above Our Wanting and Doing”</td>
<td>David W. Jardine</td>
<td>235</td>
</tr>
<tr>
<td>12</td>
<td>Motion-Sensing Phenomenology</td>
<td>Rebecca J. Lloyd and Stephen J. Smith</td>
<td>255</td>
</tr>
<tr>
<td>13</td>
<td>Critical Historiography</td>
<td>Joe L. Kincheloe</td>
<td>279</td>
</tr>
<tr>
<td>14</td>
<td>Liberation, Mice Elves and Navel Gazing: Examining the Ins and Outs of Autoethnography</td>
<td>Carolyne Ali-Khan</td>
<td>293</td>
</tr>
<tr>
<td>15</td>
<td>Educating Desire: An Impressionist Tale of Alcoholics</td>
<td>Anonymous</td>
<td>321</td>
</tr>
<tr>
<td>16</td>
<td>To Your Health! Heuristics and Deep Breathing as Mindfulness Promoting Interventions in Educational Context</td>
<td>Malgorzata Powietrzynska</td>
<td>339</td>
</tr>
<tr>
<td>17</td>
<td>Using Photovoice as a Critical Youth Participatory Method in Environmental Education Research</td>
<td>Marissa E. Bellino</td>
<td>367</td>
</tr>
<tr>
<td>18</td>
<td>Arts-based Educational Methodology: An Impossible Possibility?</td>
<td>Mark Vicars</td>
<td>383</td>
</tr>
<tr>
<td>19</td>
<td>Speculations on Qualities of Difficult Knowledge in Teaching and Learning: An Experiment in Psychoanalytic Research</td>
<td>Alice J. Pitt and Deborah P. Britzman</td>
<td>395</td>
</tr>
<tr>
<td>III</td>
<td>Reflections: After Doing the Research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Limits of Knowledge in the Physical Sciences</td>
<td>Phil Francis Carspecken</td>
<td>421</td>
</tr>
</tbody>
</table>
CONTENTS

21 From Scientific Research in Education to the “Open Science” Movement: Science as Touchstone and Buzzword
Cheryl Holzmeyer and John Willinsky

Contributors

Index
Ken: Joe Kincheloe and I worked together at the Graduate Center of CUNY from fall, 2003 until he left for a distinguished Canada chair position at McGill University in fall, 2005. We talked endlessly about research and had a vision of producing a scholarly text that addressed the logics of inquiry. This vision became manifest in Doing Educational Research (2006), or, as my students refer to it: the Red Book!

We resolved almost immediately to do a second edition, based on our success of using the book as a graduate text. We had already identified ways to improve the revised edition when a rather negative review was published in Education Researcher. The editors of the journal was somewhat apologized about the Tanner of the review and spoke with us about writing a rejoinder. We needed no encouragement to rejoin and feverishly worked on a manuscript. To our surprise, the full editorial board of the Journal declined to accept the manuscript because they did not publish rejoinders for book reviews. However, we had a polished manuscript and were in the process of submitting it for publication when Joe died in Kingston, Jamaica on December 19, 2008 at the age of 58 years. In the context of his death, I decided to publish the article in Cultural Studies of Science Education, as a testimonial to his impact on educational research. The article is as republished, with permission of Springer, as chapter 2 of this revised edition of Doing Educational Research.

One of the changes we had agreed to in creating a second edition of the Red Book was a series of Editors’ Introductions to each chapter. We divided the chapters and Joe quickly wrote his set. These are published here as sections of this Foreword. Of course, some of the Introductions authored by Joe related to chapters that were not republished or revised in this second edition. We have included these introductions following those that are referenced to chapters that appear in this revised volume. Joe’s insights and genius are reflected in these pieces and we regard this Foreword as an appropriate forum to publish this work that otherwise would not be available to the scholarly community. Also, we decided to include, as the final section of the Foreword, a segment of a chapter that was written by Joe, but was not re-published in this volume.

Shirley: Joe had very few mates. Ken Tobin was his mate. After Joe moved to the CUNY Grad Centre from Penn State (via Brooklyn College), he began thinking about whom he should attempt to recruit to become the third full time professor in
the new Urban Education Program. It took little effort to realize Tobin was the perfect choice. Not only did Ken successfully get offered the position, but he and Barbara bought a house about 3 blocks from us. Many are the flashbacks of Ken picking up Joe and their very loud, laughing walks to the train on the way to Manhattan. Almost as frequently, the two would come back with Aussie/Tennessee embellished stories of the two very out-of-place urban interlopers and whatever they experienced or saw on the train. The two of them lived auto-ethnographies wherever they went; this, coupled with their great intellects and fondness for one another, created a dynamic duo devoted to their students, their scholarship, their friendship, and laughter. This book was a major part of their collaboration.

ON KENNETH TOBIN’S CHAPTER

The first chapter on doing educational research authored by my co-editor, Kenneth Tobin, is an exemplary introduction to the specific ways an adept researcher comes to change his approach to research, in the process coming up with a powerful set of insights into the problems and possibilities of educational inquiry. Ken’s adept use autobiography to illustrate not “the way” but a range of possible approaches to classroom research grants all readers insight into the power of personal narratives in not only research itself but also in the effort to teach individuals how to become researchers. As a young researcher of the learning environments of science classrooms, Tobin found that he did not have the research tools he needed to gain a larger sense of what was happening in science classrooms. Tobin found the effort to make sense of the complexities of classroom life with empirical variables to be reductionist and decontextualized.

Like the other authors in this book, Ken found that positivistic approaches to knowledge production are profoundly limited and account for very narrow dimensions of human experience. By not examining a phenomenon within the framework of historical consciousness, reductionist research loses sight of the contexts and processes from which data cannot be removed. In this decontextualized setting crypto-positivism loses the ability to understand the way that phenomena and human consciousness are inscribed by culture and power – a deficiency that results in a lack of understanding of the way their own positions are socio-cultural and historical constructions. This leads to a form of ideological naiveté that allows such researchers to unconsciously reflect dominant cultural values and ideologies. Thus, in the name of reason and human progress such scholars (many times, unconsciously) sustain the power asymmetries of the status quo with its race, class, gender, sexual, colonial, and religious hierarchies. Logical procedure and methodological correctness (rigor) take precedence over the complex dynamics of producing usable and ethical knowledge.

Thus, the trouble with positivistic rigor is multidimensional. Its foundations, as so many from Western and non-Western locales have argued over the past several decades, are shaky and crumbling. For example, it is simply no longer possible to accept the foundational notion of objectivity when we know so much about the complex and vital relationship between knower and known. A rigorous positivistic
model of decision-making that explains phenomena and provides solutions to problems emerging from them without involving the researcher/policy maker is misleading from its inception. Such a model gives the impression that the data and answers provided are not culturally or ideologically inscribed. That which is covertly subjective is whitewashed in a way that presents it as neutral. The abstract certainties that positivists produce in this context in the name of rigor possess great oppressive potential in their erasure of their investment in the issues in question. Rigor in the positivistic cosmos ensures neutrality. Researchers remove the complex human element from the process, thus making sure that our knowledge is uncontaminated. After all these years it is still hard for me to comprehend that this argument persists decade after decade.

But whatever difficulty I may have, such perspectives continue to survive and thrive. Ken ran into them at both the beginning of his career and also, unfortunately, in his present efforts to research classrooms and teach doctoral students this complicated skill. Rigorous thinking in the positivistic sense is a mode of cognition based on an unproblematicized use of reason. The only concession to subjectivity in this process that many positivists are willing to tolerate involves attending to psychological pathologies that undermine one’s ability to be completely rational. Outside of this realm of psychological health, the relationship between self, rationality, and objective knowledge and decision-making is irrelevant on the reductionist landscape. Thus, we are back to what the positivistic tradition omits, the complex contextual, process-oriented, and ideological factors at work in any analysis and research process. As Ken recognized the way reductionist classroom research was stripped down and isolated from its natural setting, he found himself writing more and more about the contextual factors: the macro-social forces, the impact of race, social class, and state and national mandates. To help him make sense of these forces, Tobin had to gain a profound understanding of social theory, diverse modes of research, multiple voices, and diverse participants in his projects.

In this chapter readers clearly understand how these diverse ways of seeing helped Ken grasp the deficit perspectives permeating the view of inner-city students and urban education in general. Again the author’s autobiographical narrative grants us powerful insights into the ways a world-renown scientist, science educator, and researcher of science education in urban settings does his work. This is, of course, what many other approaches to teaching individuals how to become researchers do not do – provide autobiographical insights and examples of what the researcher was thinking as he or she was designing and conducting research. Such narrative respects the dignity of the reader by not laying out a step-by-step cookbook of how to do research. All researchers have their own ways of researching and the idea that there is one correct way to engage in classroom research is the height of positivism. Knowing there are multiple ways to accomplish the task, Tobin asks two main questions of the phenomena he is studying: “what is going on here?” and “why is this happening?”

Such ostensibly simple questions separate Tobin’s research from more reductionist counterparts. The hermeneutic question – why is this happening? –
demands forms of rigor swept under the rug by crypto-positivists. It is with this interpretive question and the effort to use the information produced to improve schooling that researchers earn their stripes. Such explanations go far beyond the mimetic pictures of classrooms produced by researchers who believe they can provide a complete and verifiable account of an event. Critical interpretive research involves conversing informally, Tobin tells us, with students as lessons progress. Ken follows up such dialogue with formal interviews that emphasize the “what” and “why” questions referenced above. Ken makes sure that the students he chooses to be interviewed are not picked randomly. Here Tobin uses the concept of opposites: after choosing one person to interview, Ken’s works to make the next selection as different from the first pick as possible. The process continues with selections based on who has perspectives worth knowing about what Ken wants to learn next. The process Tobin describes is fascinating and edifying to anyone who is or seeks to be a researcher.

With this in mind Tobin challenges traditional reductionist practice by maintaining that he never goes into his research on classrooms with solidified ideas about what a research project will reveal. A critical pedagogical researcher, for example, who has already decided how power plays out in a particular social situation or classroom setting has made a profound mistake, because power in its complexity will operate in diverse ways given the idiosyncrasy of the contexts of which it is a part. As Tobin so aptly puts it, research that begins with a set of assumptions about what is to be gained from the process finds that “such ideas can serve as templates that filter data and confirm a priori expectations.” I have seen far too much research of all varieties and ideological persuasions fall into this trap.

Keeping himself open to new ideas, new theoretical and methodological lenses, Ken insists that his complex classroom research meet one more central criterion: research with human subjects must benefit the students, teachers, and other individuals involved in the inquiry not only in the future but also as the research is being conducted. I have talked at length with Ken about research in which he has been involved, and one dimension he always deems essential involves the ways his work benefits himself as a teacher-researcher and all people involved in whatever capacity with the research. If these benefits are not identifiable, Ken is simply not satisfied with what he has done. Using Egon Guba’s and Yvonna Lincoln’s notion of ontological authenticity, Tobin asks how those involved with the study change their perceptions of the socio-cultural dynamics shaping the phenomenon under analysis as well as the phenomenon itself. How does the research change who the participants are and the conceptual matrixes they bring to their work?

In this context Tobin induces readers to consider the way their own perceptual frameworks are changed and how this changes their descriptions and interpretations. What is the relationship between these theoretical frameworks and the final information produced? As we explore this questions with which Ken confronts us, we move into a new epistemological, ontological, and ideological territory – a terrain where objects in the mimetic researcher’s rearview mirror may be more complex than we ever imagined. This issue of the benefits of research and the ontological changes it brings about cannot be separated from Ken’s profound
concern with the ethics of research with human subjects – a topic on which he is a trusted expert. Using the guidance of the Belmont Report – prepared by the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research in 1979 – Tobin discusses the foundational ethical precepts for conducting ethical research with human subjects.

Here Tobin provides a great service for all researchers and students of research about the nature of ethical research and the diverse problems one encounters in working with human subjects committees. Tobin documents how he has dealt with the crypto-positivistic impulse of some committees to ask for research questions and researcher hypotheses before the research commences. In this context Tobin concludes that these are requests he can as a researcher live with as long he can show how his initial conceptions changed as the research was being conducted. This illustration of how researcher perspectives change during the research process is a central dimension of Guba and Lincoln’s ontological authenticity. In this ontological context Ken asks: how did the participants in my research project and I as the researcher change as the project proceeded? The answers to such a question are central to the research on classrooms that Tobin conducts. They are important to any effort to engage in rigorous, complex, critical research in general.

Another important aspect of Tobin’s chapter involves how he illustrates the complex, non-reductionist aspect of his research for his readers. After searching for what he calls “patterns of coherence” in the data he has collected, Ken explores the contradictions that do not fit the patterns he has delineated. Instead of engaging a positivistic epistemology that explains such incongruities as errors, Tobin views them as propitious moments where deeper insight into the data can be gained into the domain under study. This is such an important understanding for researchers who have been taught to erase such contradictions in the quest for final truth. Bringing together patterns of coherence with these conflicts, Tobin gains a more textured view of the phenomenon under study. Through an appreciation of the relationship between the patterns and the contradictions, he gains a greater sense of the way coherence and conflict work together to help shape a thicker view of things-in-the-world.

The compelling nature of this interaction of coherence and conflict illustrates the importance of conducting research at diverse levels – in this context Tobin refers to microscopic, mesoscopic, and macroscopic domains of research. From his macro-social theoretical insights to his videotape microanalyses, Ken promotes the value of these diverse perspectives. In relation to the notion of diverse perspectives one of the most important dimensions of Tobin’s classroom research involves his compelling use of students as researchers. No only does he gain students’ valuable perspectives on what is going on in the teaching and learning process, but he also engages students in observing and doing research. There are few pedagogies more powerful than this. Tobin is careful to view students in classroom research not simply as sources of information but also as researchers in their own right. Student researchers attend the meetings of Ken’s research teams, they learn the theoretical underpinnings of the research project, they work to understand the nature of
research design, and they find that they too grow ontologically as a result of their involvement in the research process.

Ken Tobin’s chapter is profoundly valuable in our effort to develop new, more rigorous forms of critical complex research. Contributing to a new epistemology and ontology—and the research they help us construct—Tobin helps young (and not so young) classroom researchers obtain the tools to get beyond the reduction valves of positivism. Such epistemological and ontological spigots exclude so many dimensions of the world from our purview and understanding. In this new context we are better prepared to transcend the normalized pictures of reality that dominant ideologies and positivism work to construct. In an era of complexification, of hyperreality where information exponentially increases, the power of dominant ideology is magnified, surveillance techniques for regulating teacher and student actions abound, and new media help develop new forms of social discipline and resistance, the need for new levels of insight into these issues has never been greater. Indeed, the nature of education and schooling in the coming decades will be profoundly shaped by how successful we are in developing and deploying these new forms of knowledge work. Tobin’s chapter provides us a compelling insight into a central dimension of this effort.

ON KATHLEEN BERRY’S CHAPTER

Kathleen Berry provides a powerful introduction to the use of bricolage in educational research. Berry and I have worked together on the concept of the bricolage, co-authoring the book, *Rigour and complexity in educational research: Conceptualizing the bricolage* (2004). I have long argued that Kathy Berry is one of the most gifted pedagogical and research-oriented thinkers operating in contemporary North America. The following chapter helps illustrate this assertion. As she introduces readers to the bricolage, Berry maintains that since she embraced the use of the bricolage she has felt as if she were thrust back into the middle of the paradigmatic wars many thought were over. The rise of crypto-positivism in its evidence-based guise placed Berry and her students in situations where colleagues demanded a single methodology—rejecting in the process an effort to employ a more rigorous, more theoretically savvy mode of knowledge production for the reductionist comfort of the “one correct way.” This is profoundly discouraging to Berry and myself, as it illustrates a regressive backlash against the insights we have developed about the social construction of knowledge and knowledge production and dominant power’s ability to covertly infiltrate such processes in a way that promotes its own interests.

As bricoleurs bring multiple theoretical lenses and research designs to the process of educational inquiry, Berry contends that a key dimension of this multiperspectival process involves situating oneself in the inquiry. How am I (the researcher) positioned in the study, Kathy asks, and how does this affect the knowledge I produce. A researcher who conducts a rigorous form of research understands the forces that shape what we think we know about the world. In the process we come to understand how much we don’t know about and don’t
experience in the socio-educational cosmos. Thus, what crypto-positivist researchers label reality is actually more like a belief about what the world is – a conviction grounded on passing glimpses.

Such researchers don’t seem to keep in mind that a human view of the world is always truncated by our vantage point and the nature of our consciousness and unconsciousness – as Berry knows all too well. This is why a critical complex theory of mind and consciousness are so important in good research in general and in the bricolage in particular: in such a context we can better understand the way subjectivity/identity are socially constructed and the process by which we come to see ourselves and the world. The critical complex theory of mind and consciousness Shirley Steinberg and I have worked on over the last fifteen years, postformalism, provides a socio-political, spatio-temporal analysis of consciousness that allows us to see more dimensions of the ways our consciousness – and, thus, our knowledge – is limited. This critical complex mode of studying mind and consciousness is central to the bricolage.

Unlike bricoleurs and postformalists, positivist researchers operate as if the construction of the mind of the researcher has simply nothing to do with the knowledge that is produced. Just as long as the mental mirror that reflects the real world is not cracked, the mind has very little to do with the positivistic/reductionist knowledge production process. Obviously, the bricolage maintains that the mind has far more to do with the production of knowledge than has typically been admitted by the positivists. What we call reality exists in the intersection of the universe with the mind – a key dimension of what the bricolage studies. The fact that we don’t have the olfactory sense of dogs or the cognitive radar of bats doesn’t mean that what such creatures perceive about their reality doesn’t exist.

This, however, is exactly how many positivist researchers function. If a phenomenon doesn’t lend itself to perception by the way our minds presently work, then the phenomenon is dismissed. In such situations bricoleurs maintain that the positivist refusal to employ diverse epistemologies, ontologies, and research designs that allow us to bring the phenomenon into our range of perception is a form of parochial anti-intellectualism. Because it did not conform to the kind of perception needed for empirical scientific investigation, consciousness, behavioral psychologist, B.F. Skinner asserted, didn’t exist. The central role of mind in helping to construct the universe is in the positivist context summarily eliminated. The ties between knower and known are severed. Berry and other bricoleurs work to address this unacceptable state of affairs.

In positivism and its contemporary crypto-positivist expression the meaning of an observation is transmitted from sensory perception directly to the passive receiver – the researcher. The bricolage confronts such reductionism in the name of good scholarship. Meaning in the crypto-positivist epistemological/ontological framework resides in phenomena themselves and the job of the researcher is simply to capture that meaning and relay it to the readers of their research. Bricoleurs such as Kathy Berry see this process of meaning making not as an objective procedure of researching and then relaying the meaning of a phenomenon but more as a negotiated process between the viewer and the entity under
observation – a negotiation that is better accomplished with a variety of perspectives and theoretical orientations. What the phenomenon means is neither objectively predetermined nor entirely open to any imagined interpretation. The place the observer occupies in the web of reality, the values she holds, the epistemological, ontological, ideological and other perspectives she either consciously or unconsciously embraces all help shape how a particular entity is viewed and interpreted. Indeed, after Einstein, quantum mechanics, Heisenberg, and Maturana and Varela the idea that meaning resides simply in the phenomenon itself seems archaic.

Operating in the spirit of quantum theory, bricoleurs posit that the phenomena of the world never have fixed, set meanings. What this suggests in the everyday lived world of the researcher is that physical and social phenomena don’t have an eternal Platonic form, a permanent spatial arrangement that persists as time passes. This is where the complexity theoretical notion of process enters the bricolage’s understanding of objectivity vis-à-vis epistemology and ontology. As a part of larger contexts and processes, the phenomena of the world are always changing, ever in process in an act of becoming. This is one of the major points positivism has always missed: things change, people change via patterns that play out over long periods of time. Indeed, when positivist researchers attempt to observe an entity in a single snapshot ignoring its historical construction and future possibilities of what it could be – not to mention what surrounds it outside the frame of the picture – they get a highly distorted view of the entity.

These are not simply arcane philosophical notions that have relevance only if an individual takes a philosophy of science course. The epistemological and ontological concepts developed here and in Kathy’s chapter shape what we think we know about the world. They help construct our ideological views of who we are, what the world is, and how human suffering and oppression continue unabated in contemporary life on Earth. The crypto-positivism that attempts to dismiss these questions in the name of just doing research in a monolithic method has to be addressed if we are to advance our ability to understand and change the world. As I get older, I become increasingly weary of crypto-positivist arguments that such insights don’t matter in the education of researchers. This is why Berry characterizes the next moment in Norman Denzin and Yvonna Lincoln’s (2005) timeline of qualitative research as belonging to the bricolage. I agree with Kathy and argue that the progression to the bricolage is already happening under a variety of names as a compelling effort to produce better, highly informed research.

The repertoire of discourses/resources on which bricoleurs can draw, Berry maintains, increases every day and every year. Thus, as bricoleurs we read in and are conversant with diverse fields, various manifestations of high and popular culture, and knowledge sources from academic information to video, television, and cyberspace. As bricoleurs, we have no choice – we have to know a lot, study hard, and work to compare differing theoretical dynamics and diverse perspectives throughout our lives. It takes a tremendous commitment to be a bricoleur – one’s education as a researcher doesn’t simply end at the completion of one’s formal education. To fulfill such a commitment, Kathy tells us, takes a special
commitment—a “rhapsodic intellect.” A rhapsodic intellect she tells readers so eloquently, is grounded on “passion for new knowledge and insights” and “compassion for others.” These allegiances help construct the sustainable battery from which bricoleurs draw energy for the complex task ahead of them.

The bricolage, Berry insists, involves the creative task of constructing knowledge emerging from diverse perspectives, fresh questions, and artful interpretation. Such bricolage-produced knowledge is dangerous no doubt, as it exposes the hidden consequences of dominant power in education, the contradictions and asymmetries that are typically overlooked in crypto-positivist research. To accomplish such a task, Berry maintains that bricoleurs must view the issues in question from the vantage point of diverse contexts—the social, cultural, historical, economic, political, etc. Indeed, this contextualizing impulse is a central dimension of the bricolage. As we view a phenomenon from numerous horizons, we begin to see it in completely different ways. Our acquaintance with these diverse perspectives sets us up to provide fresh insights into a variety of events.

As we reflect on Kenneth Tobin’s chapter 2 in the context of Berry’s explication of the bricolage, we can begin to see the ways that Ken’s multiple lenses into classroom research allow him to gain new insights into the interactions of students and teachers. Thus, bricoleurs acting in the spirit of multilogicality ask how is this student’s life and relationship to learning connected to dominant political, epistemological, ontological, cultural, and economic forces. What is the relationship here? Who is privileged by these relationships? Who is oppressed by them? What is my relationship as a researcher to these dynamics? How does this relationship affect the way I view the situation? This is why the bricolage is so central to any form of critical research—it provides us new tools and strategies to answer such questions. In a participatory manner it engages interviewees in ask such questions, bringing about ontological changes not only among readers of the research but participants in it as well. Hopefully, these ontological changes lead to larger structural and ideological transformations as well.

In this larger conversation Berry discusses the ways researchers might enter the bricolage. Through a variety of point of entry texts (POETs), a group of researchers might examine a classroom practice, a particular book, a curriculum, or a movie using a diverse array of theoretical perspectives, methodological approaches, and interpretive strategies. Such tools can help problematize traditional perceptions of such “texts” in ways that create emancipatory insights and critical complex modes of consciousness. Such new ways of seeing expose the ways both cultural education and schooling can become modes of social control, regulation, and classification that lead to great injustice. When such analysis is conducted rigorously, bricoleurs can begin to understand the ever-morphing nature of power and the ways it produces both agency and oppression. As Berry maintains, we gain a deeper insight into these processes by appreciating both what we see about a particular phenomenon and what is invisible to our “commonsense” modes of perception.

Thus, we learn from Berry’s compelling chapter on the bricolage that we simply cannot become viable researchers who produce compelling and transformative
knowledge unless we appreciate the numerous and varied socio-political and conceptual structures that shape the research act. As we engage in such analysis we gain a new vantage point on the means by which such frameworks prop up the needs of oppressive power. Diverse power blocs deploy these frameworks to develop what appear to be levelheaded practices that often shape the lives of the poor, the racially marginalized, women, the colonized, and other peoples in profoundly damaging ways. I have stood before people deemed to be reasonable and ethical in public and private schools, universities, colleges of education, and many other venues who constructed policies that unabashedly exerted a disastrous effect on the least powerful members of the communities of which these policy makers were involved. In these and other contexts we witness the results of egregiously flawed research strategies and epistemologies that are structured to dismiss particular contextual factors such as the welfare of marginalized peoples from consideration in the knowledge production process. Kathy Berry helps us overcome these unfortunate tendencies of hegemonic forms of inquiry.

ON SHIRLEY STEINBERG’S CHAPTER

Shirley Steinberg continues Kathleen Berry’s discussion of the bricolage. Here Steinberg argues that a bricoleur’s research should be a “complex collage” tying together the researcher’s theoretical lenses, images, insights, and interpretations of the interconnections between texts, social justice, the social context in which these dynamics are situated, and its effects on those who come into contact with it. Like Berry, Steinberg situates the bricolage in a critical theoretical context, as a tool in the critical pedagogue’s repertoire that helps her expose the oppressive effects of power. Steinberg, like all critical bricoleurs, understands that all research is partial and lacking in diverse ways. While bricoleurs are not so naïve that they attempt to complete research by opening new perspectives on the process, they do make an effort to broaden their vantage points through the power of cultural, theoretical, and methodological difference. While such efforts extend our understanding on a phenomenon or a pedagogical process, Steinberg is quick to point out that bricoleurs do not gain some God-like view – no matter how hard we may try, bricoleurs’ perspectives are also partial. Instead of fighting this incompleteness, bricoleurs accept it, in the process promoting a humble view of the world that understands the limitations of all inquiry.

Thus, Steinberg’s bricolage represents an effort to carry on knowledge production with the realization that knowledge is contingent and always open to change when someone asks new questions from a different perspective. This presents crypto-positivism with an “in its face” challenge. The correspondence epistemology of old and new versions of positivism certify data that accurately reflect the correspondence between the knowledge the research puts on paper and the one true version of “real things.” The reductionist quest for certainty in this context overcomes good sense. The critical complex epistemology promoted by Steinberg’s and Berry’s bricolage questions the declaration that there exists one fixed external world of real things that will be seen by everybody from every
spatio-temporal location in the same way if they simply employ the correct research methodology. Such doubt in the infallibility of positivist science scares the hell out of true believers in the objectivity of mainstream research – I think this is one of the reasons they sometimes react so vehemently to the bricolage. On one level such positivist fear is puzzling in light of the tendency for all of the greatest advances in twentieth century science to question reductionism and to promote the complexity of all research practices. The correspondence epistemology of positivism was kneed in the guts by Einstein’s Special and General Theories of Relativity, quantum mechanics, Werner Heisenberg’s uncertainty principle, Humberto Maturana’s and Francisco Varela’s theory of emergence as complexity intensifies in biological systems, the insights of literary theorists into the imprecision of language employed in scientific research and its often hidden effects, just to mention a few challenges of the last century.

In light of such complex insights many scholars from physics, biology, and sociology to education now understand that scientific certainty is more fleeting a notion than once so confidently was assumed. With this in mind it is necessary to note that a critical complex bricolage-grounded approach to research delivers a blunt invitation for knowledge workers and educators to account for the dangerous weaknesses displayed by traditional positivism and its crypto-positivistic contemporary manifestation. In a twenty-first century world of perpetual war and elitist social and educational policies, critical bricoleurs such as Shirley Steinberg view this “call for accountability” as a mode of scholarly decolonization – an effort to reinstate the ethical dimension of educational research. A critical form of research validity asks how the research in question has helped us understand the causes of human suffering and how it has enabled action to address it. Indeed, Shirley in her discussion of “doing the bricolage” illustrates how crypto-positivism is a form of epistemological colonialism designed to support dominant power blocs including the political economic and sometimes military neo-colonialism that the U.S. and its Western allies have unleashed against the world.

In its epistemological sophistication, the bricolage stands up against this epistoppression. Epistemological colonialism operates to invalidate the information constructed by peoples from oppressed locales and replace them with Eurocentric crypto-positivistic knowledges – all in the geo-political and economic interests of the wealthiest peoples from North America, Australia, New Zealand, Europe, and their co-conspirators in other parts of the world. Indeed, in the standardized educational cosmos of the twenty-first century U.S.-led Western empire, one of the central dimensions of schooling involves colonizing student minds with this imperial impulse. Critical evaluations of such colonial forms of knowledge production have emanated, of course, from colonized countries and from numerous Western scholars.

Such researchers have systematically outlined the inadequacies of Western ways of seeing and their socio-political and pedagogical effects. Bricoleurs in education – no matter what they are studying – have much to learn from such critiques. It is essential to human welfare, educational legitimacy, and the well being of the planet itself that educational researchers understand the effects of this epistemology of
correspondence and the variety of ways it is deployed to exacerbate human oppression and pathological educational practices. Steinberg leads the way in this process with her delineation of how the bricolage operates. At the end of the first decade of the twenty-first century, bricoleurs can’t help but sense that while the planet burns and Western patriarchal free marketers pour gas onto the fire, crypto-positivist researchers fiddle with the production of trivial, deracinated, decontextualized, and faux-depoliticized data.

In this socio-political, epistemological, and ontological context Shirley provides insights into the way she engages the bricolage. After transcribing her notes on the text in question, Steinberg reads through her data set allowing themes and motifs to materialize. Coding her emerging concepts with colored pencils, she watches macro-themes emerge turning her original motifs into micro-themes. One of the many dangers of traditional “how-to-do-research books” involves this coding process. The quality of one’s coding is contingent on conceptual frames and ways of seeing that researchers bring to this aspect of the process. To simply view this – as many educators of researchers do – as a technical act carried on outside of the epistemological, ontological, ideological, cultural and many other dimensions mentioned by Steinberg and the other authors in this book is a form of mis-education. Here is a key dimension of a critical complex research as informed by the bricolage: research is not a mechanical process of following proper steps. Research is a scholarly, creative act that must be improvised in light of a wide range of insights. There is no correct way to perform any form of research – we have to be able to reflect, think on our feet, change course abruptly, and bring in numerous insights from our general education and our life experiences. To do otherwise is to dumb down the process.

In this rigorous research context Steinberg focuses much attention on the interpretive process in the bricolage. She understands that in a Heideggerian (grounded on the epistemological/ontological work of Martin Heidegger) sense living, being in the world, always involves a hermeneutic interpretation of the world and self. Thus, we must always as critical ethical beings actively engage in the process of understanding how our place and time in the world – in the social and temporal web of reality – is always shaping our actions and thoughts. This process is a central dimension of the bricolage’s counter-positivistic and counter-hegemonic research act. Indeed, it may be fair to argue that contemporary crypto-positivistic researchers emphasize the production of knowledge over the nature of our being in the world. If this is the case, then the effort to understand who we are and how our location in the web of reality shapes both our selfhood and the knowledge we produce about the world is not a high priority in twenty-first century Western research. There is no way to separate knowing and being, implying that particular phenomena can only be understood when the knower has become aware of her context and the way it shapes her conceptual lens.

If we bring in diverse individuals to view the mundane contexts in which we live and the ways they affect our ways of seeing, there is little doubt they will show us things about ourselves and our world that are completely surrounding us but yet invisible to our eyes. A key concept emerges at this point: although knowing and
being-in-the-world are inseparable, human beings have the agency to understand
the relationship in a way that allows them to act in defiance of any final,
deterministic influences of such a relationship. We are not prisoners of the
processes and contexts that shape us. Indeed, the in process, fluid, ever changing,
emergent nature of the world makes critical agency more possible that we could
have previously imagined. As critical theorist Walter Benjamin (1968) maintained
in *Illuminations*, language plays a powerful role in helping construct the nature of
the world. In this context it is central to note that language helps shape, and
therefore it can help reshape the nature of human consciousness. Yet, another
factor is identified that provides possibility and hope that researchers don’t have to
be trapped in the immediacy of the contexts and processes that help shape them.
Bricoleurs such as Steinberg take advantage of this opportunity.

Bricoleurs know that context and process are powerful but not deterministic
forces in the world. It is fascinating what we can find out about researchers and
ourselves as we come to understand the impact of ontological assumptions,
discursive practices, conceptual frameworks, and epistemes on knowledge work.
When we gain the ability to appreciate these dynamics, we have made a giant step
in our effort to both understand the typically hidden dimensions of the research
process and also take more power over our own destiny. We are interpretive beings
no doubt, but we can always get better at the process of interpretation. As we hone
our hermeneutics we gain a firmer grasp on the social role of knowledge – how
knowledge hookworms its way into us, in the process changing us. From this
vantage point we can discern the way knowledge exerts its ontological power.

This transgressive, nay ideologically intoxicating perspective of the critical
bricolage, can free us from the hegemony of dominant power and its hypnotic
consumerist trance. With this knowledge and the critical affect that accompanies it,
bricoleurs can never become researchers who can be bought and sold to the highest
Corporate bidder – degraded objects of exchange. Our consciousness is elevated –
we are empowered to create knowledges that matter, to reframe the purposes of
school in light of new perspectives on what it attempts to do, to expose and help
end human suffering. Crypto-positivist lessons on becoming a researcher avoid
connecting educational research to the purposes of education in a democratic
society. Critical complex bricoleurs with these notions in mind understand that
there is never a disconnection between educational research and the purposes of
one’s pedagogy. If the purpose of our pedagogy is to gain new cognitive abilities,
to see the world in emancipatory ways, to understand the hidden forces that shape
what happens in various societies, to gain empowerment to re-shape the nature of
our lives and the lives of our communities, and to gain the civic literacy and
courage to fight oppression, then how we conduct our research cannot remain
unaltered.

If an educator’s purpose is to pass along a body of traditional knowledges many
of which are simply untrue in order to raise standardized test scores, then the nature
and purposes of her research cannot be unaltered. If one embraces such a purpose,
then developing more exacting ways of testing students might be a key dimension
of her research agenda.
Indeed, being situated does not undermine our ethical compass, our social commitments, our sense of higher purpose, or the ineffable willpower that motivate advocates of the bricolage. Steinberg knows the direction in which she wants to travel, she has a critical vision of where she might go. Here, bricoleurs understand the political ethics of their own ontological and epistemological stance. They are made aware once again of the inseparability of their political, pedagogical, and research strategies. Understanding selfhood and its construction is a key missing dimension to both doing educational research and teaching people to do educational research. The self is always in a process of revising and readjusting. It is never stable and we never know exactly where it is located – Francisco Varela (1999) refers to this as the virtuality of the self. Varela’s conception of the virtual self emerges out of a complex matrix of relationships. Because of its ever in process, ever-evolving nature as a thing-in-relationship, the virtual self possesses no describable central processing mechanism, no “situation room” where activities are organized and coordinated – the dynamics that shape it are widely distributed in the physical and social worlds. Bricoleurs Steinberg and Berry know that as critical complex researchers they must understand how the self works in the research process. They must take advantage of its capacity for change.

ON BARBARA THAYER-BACON’S AND DIANA MOYER’S CHAPTER

Barbara Thayer-Bacon and Diana Moyer present a dynamic introduction to research in the philosophy and history of education. Once again it is important to contextualize this chapter in terms of the hegemonic epistemological world of educational research. Thayer-Bacon and Moyer argue that norms of physical science with their rules for explanation are still considered the standard in educational research. In this superior position many practitioners of such types of inquiry look at historical, philosophical, literary studies, interpretive, and critical designs as inferior forms of research. Many of the types of research delineated in Doing Educational Research: A Handbook including Thayer-Bacon’s and Moyer’s philosophical and historical work are dismissed by the narrow-minded crypto-positivists. Bringing philosophical and historical ways of producing knowledge into contemporary educational research is a battle worth fighting. It is simply absurd that contributors to this handbook, including Thayer-Bacon and Moyer, produce high quality scholarship that too often is not respected in educational circles.

It is even more obnoxious that when we point out the oppressive dimensions of such epistemological arrogance, we are charged with confrontational language and being uncivil. According to the crypto-positivist position those of us who do non-positivistic research should just keep quiet when we find ourselves and many of our brilliant colleagues being denied tenure and not being reappointed because we and/or they are not really doing rigorous research. I am very, very tired of such malicious, parochial, and ideologically and intellectually indefensible policies. We cannot remain silent in the face of such oppressive and hegemonic actions. Crypto-positivists can destroy the lives of brilliant young researchers, but those of us
coming from different paradigms must not speak with indignation and anger about such ludicrous practices. We must make sure that historical, philosophical, literary, interpretive, and critical modes of inquiry are included in the research courses offered in colleges/faculties of education. While we do not want to fight the research wars once again, we cannot retreat from the positivistic gauntlet that has been thrown on the ground beside us.

Thayer-Bacon and Moyer understand that philosophical and historical research cannot produce the modes of prediction and control demanded by an imperial reductionist research establishment. As we move farther and farther down the road of No Child Left Behind and the type of “evidence-based data” its standardized and test-driven practices demand, the conversation about research becomes narrower and narrower. Thayer-Bacon and Moyer quote the National Research Council’s Scientific Research in Education that categorizes philosophical and historical research as “other approaches” that could be used to supplement real scientific research. At least the authors of the book admit that an educator might use such modes of research – there are numerous crypto-positivistic educators who see no reason at all to engage in such types of knowledge work. In one university where I was a professor, one of my colleagues who was well-known and well-respected as a philosopher of education found that the tenure committee in his department had ruled against him because in their words “there is no such thing as research in philosophy – thus, he has conducted no research.”

This positivistic hegemony reveals itself in numerous fields as those whose research falls under the umbrella of scientism with its alleged disinterestedness, mimetic forms of data production, and replicability receive the vast majority of research grants and institutional perks. In these situations there emerges a tendency on the part of university leaders to use this positivistic mode of research as the exclusive model of what research should be. In relation to the huge financial allotments given to such research, critical complex types of social, psychological, and educational inquiry – such as philosophical and historical studies – pale in fiscal comparison. Recently, I was told by a representative from a national educational research organization that the critical pedagogical research that my colleagues in that field and I do is not really empirical research. Thus, a critical complex, multiperspectival, multimethodological understanding of research demands that we examine the nature of the disciplines and the knowledge work they promote, reassess the criteria for evaluating scholarship in a way that removes knowledge work from the positivist hierarchy, and develop new modes of understanding the ways that research agendas are set and whose interests they serve. It really is time that positivists stopped bullying researchers coming from different epistemological backgrounds.

The implicit values that shape university and other institutional policies around conceptions of research must be made explicit and the metaphysics on which they are grounded exposed. Power’s presence – no matter whether it takes the form of whiteness, class elitism, patriarchy, colonialism, heterosexism, abilism, religious prejudice – in the creation of knowledge is omnipresent. It is the 1153-pound bull moose in the room about which oftentimes no one dares speak. I cannot help but
laugh – after a thirty year career as a professor in higher education marked by positivists who have attempted to deny my critical, philosophical, social theoretically-oriented colleagues tenure – when such positivist scholars demand that we temper our rhetoric about issues surrounding research and epistemology. The laugh is dry and sarcastic. I have to immediately visualize the marginalized children oppressed by dominant forms of power who have always motivated me to continue my teaching and research in education. Their images in my mind’s eye flood out the cynical and nihilistic feelings that envelop me in such situations.

I have yet to see or hear about a non-positivist researcher attempting to deny tenure to a positivist researcher on the grounds of the type of research he or she employs. (Of course, I hope I never do, for these are not the grounds on which academic reward should or should not be granted.) It is fascinating that such “rigorous” scholars who often sit on research ethics committees, dissertation review committees, and other governing boards cannot discern the difference between certain forms of educational research coming from teacher research, action research, participatory action research, etc. and propositional knowledge and mimetic knowledges about education. The ability to distinguish between different types of knowledges that come from different types of questions, epistemologies, ontologies, and purposes is essential to any researcher working in education or any other domain of study. Yet, in far too many academic programs in colleges/faculties of education and elsewhere such discernment is simply not taught.

Without the ability to understand different types of knowledges and how they relate to divergent questions, scholars will continue to operate from a monological perspective that dismisses powerful research traditions such as philosophy and history. They will continue to deny research funding to scholars such as Thayer-Bacon and Moyer. Indeed, as Thayer-Bacon describes her effort to explain what a philosophical argument is to her students, the power of scientific hegemony to determine what is and even what sounds like research rears its head. To students under the spell of such hegemony, philosophical arguments sound like mere opinion not based on empirical, verifiable fact. The reductionism and arbitrariness of such positivistic determination of “the truth” is not usually taught to such students. They are ensnared in the positivist trap – in the name of rigor they dismiss some of the most powerful ways of producing knowledge that presently exist.

Indeed, as the authors maintain, philosophical arguments don’t attempt to do the same thing as positivistic research. As philosophical arguments make the case for what should be – a key dimension of any educational knowledge work – philosophers draw upon their intuition, creativity, imagination, and educational background to support the positions they advocate. This is certainly one of the most rigorous and demanding jobs in scholarship. The fact that it would not be recognized as such and as a valuable form of research is unacceptable. Indeed, any scholar doing any form of research could profoundly profit from a detailed knowledge of such philosophical dynamics. In previous work I have made the argument for the importance of philosophical research in educational inquiry in general and the bricolage in particular. While many researchers have been very
complementary in regard to such work, many of the crypto-positivistic reviewers have ridiculed such a position. They find it ridiculous that philosophical analysis would even be used in a discussion about doing educational research—a manifestation, the argument goes, of a sophomoric perspective. The ad hominem vehemence of this reaction to such a position may be telling in and of itself. Given the crypto-positivist lack of familiarity with such a discourse, they have accused proponents of promoting an esoteric and elitist language when we/they speak of such issues. As long as we speak of “my tradition” our language is open and accessible; when we speak of a “tradition different than mine” your language is arcane and inaccessible. As one might guess, I am not impressed by such arguments.

I have often used the phrase philosophical research to denote the use of various philosophical tools to help clarify the process of inquiry and provide insight into the assumptions on which it conceptually rests. Informed by Thayer-Bacon’s and Moyer’s conception of philosophical research, researchers become smarter, more self-reflective about their own role and the role of researchers in general in the knowledge-and reality-creating process. An appreciation of complexity, of course, demands such insights, as it insists on an understanding that conceptual categories are human constructions and posits that such categorization exerts a profound impact on modes of perception and human action itself.

The mode of philosophical consciousness advocated here helps researchers bracket their own subjectivity as researchers in ways that force the intersection of notions such as researcher “invention” and researcher “discovery.” The bricolage makes use of philosophical research into the boundary between the social world and the narrative representation of it. Such explorations provide profound and often unrecognized knowledge about what exactly is produced when researchers describe the social world. Rigor, I assert, is impossible without such knowledge and discernment. Exploring this complex, ever shifting boundary between the social world and the narrative representation of it, philosophically-informed researchers begin to document the specific influences of life history, lived context, race, class, gender and sexuality on researchers and the knowledge they produce.

These aspects of philosophical research help the researcher highlight the ethical, epistemological, ontological, and political features of the research process and the knowledge it produces. Such tasks might be described as a form of research concerned with conceptual clarification. For example, what does it mean to exist in history? To live and operate as a social and historical subject? How do researchers begin the process of exploring such dynamics? How do the ways researchers conceptualize these features shape the research process and the knowledge it produces? How do social theoretical choices and assumptions affect these issues? All of these questions point to the role of science as first and foremost a cultural activity. Abstract and objective procedural and methodological protocols come to be viewed as the socially constructed entities that they are. Thus, researchers are freed from reductionist conventions in ways that facilitate their moves not to an anything-goes model of research but to a genuinely rigorous, informed multiperspectival way of exploring the lived world.
What researchers are exploring in this philosophical mode of inquiry is the nature and effects of the social construction of knowledge, understanding, and human subjectivity. Realizing the dramatic limitations of so-called objectivist assumptions about the knowledge production process, philosophical researchers struggle to specify the ways perspectives are shaped by social, cultural, political, ideological, discursive, and disciplinary forces. Understanding the specifics of this construction process helps researchers aware of complexity choose and develop the methodological, theoretical, and interpretive tools they need to address the depictions of the world that emerge from it. In the context of the philosophical inquiry as conceptual clarification the researcher comes to understand that the objectivist view of knowledge assumes that meaning in the world exists separately from an individual’s experience. In such an objectivist context the research act simply involves identifying external objective reality and reflecting it in the research narrative. Such reductionism and its concurrent distortion is exactly what rigorous research seeks to avoid.

In the same anti-reductionist vein Thayer-Bacon and Moyer work to conceptualize a historical mode of research that understands the profound difficulty with depicting history as “it really was.” No matter how we cut it, historical research always requires interpretation by the historian. As the authors point out: “even the seemingly transparent issue of historical ‘fact’ is fraught with difficulty.” In this context educational historians must be particularly careful about imposing a pseudo order on historical data, a “false coherence” that will often work to legitimize existing power relations.

Power renders certain historical narratives to be commonsensical and, therefore, resonant with asymmetrical power relationships – with oppression. As critical complex historians construct information about the past, they concurrently produce insights about the way history is shaped by power and dominant culture. In this context Thayer-Bacon and Moyer help us appreciate the notion that learning to be an educational historian requires more than simply learning a set of historical research strategies. In order to appreciate the socio-political construction of a society’s historical understandings, historians have to understand social theoretical, cultural, and philosophical insights. The path to becoming a critical complex historian is longer and more demanding than a more technicist and reductionist boulevard.

While many scholars believe that positivism is an epistemological and ontological position found only in the physical sciences and quantitative modes of research, what we are maintaining here is that elements of positivism inscribe research of all kinds. As one who was educated in my doctoral program as a historian, I recognized early on that even historians could be influenced by these positivistic dynamics. Some historians – both past and present – have assumed that their objective task has involved presenting the final truth about the past. The numerous obstacles concerning the objectivity of the sources one has to deal with in historical research were glossed over as historians claimed their chronicles to be an objective rendering of a historical event or era. What mattered to such historians was not the process of knowing and the way the knower entered into that process –
the important aspect of research was the known. Thus, a critical complex form of research always takes knower and known – and their intricate relationship – into account when producing or studying the production of knowledge.

When philosophical and historical research are examined together as part of a larger effort to understand education in ways that reveal particular tendencies and trends in the way public knowledge production and schooling work, powerful insights can be gained. This is exactly what Thayer-Bacon and Moyer do in this chapter, in the process providing the reader with compelling new ways of understanding the dynamics of the pedagogical process. After reading this essay, one will be upset to learn that courses in philosophical and historical analyses of education are found less and less often in teacher education programs and as modes of understanding education. This is a tragic trend that must be reversed in the coming years. Thayer-Bacon and Moyer show us the power of these discourses when guided by capable and creative scholars.

ON PHIL FRANCIS CARSPECKEN’S CHAPTER

Phil Francis Carspecken provides a powerful epistemological, ontological, and ideological analysis of twenty-first century educational research that resonates with and extends many of the concepts that appear in previous chapters. Carspecken maintains that a virulent form of scientistic (defined as the notion that the epistemological/ontological constructs and methodologies of the physical sciences are the only legitimate forms of science no matter what a researcher is studying) ideology has reemerged in Western social and educational research. This notion resonates with the emergence of what has previously been described in this book as crypto-positivism. Carspecken’s chapter involves an analysis of what is presupposed but unstated in such a rigid notion of educational research. Such an analysis is essential in the last years of the first decade of the twenty-first century, as many governmental and other agencies have openly stated that only research that fits the mold of the physical sciences will be funded and/or used in educational policymaking.

In crypto-positivistic/scientistic research one of the most important unstated assumptions permeating all of its belief structures involves the notion of substance. In the lexicon of the philosophy of science, substance is something that can exist in isolation, unconnected to anything else. Substance in this Western ontological context is what makes up all things. Thus, all things (even in the social, psychological, and educational domains) can be studied in the same way we study the substance of biology, cells, or chemistry, solids and gases. Throughout the twentieth century, however, researchers began to find more and more domains where traditional physical scientific notions of substance did not work – for example, in the study of consciousness, in the quantum domain of sub-atomic particles, in social frameworks, etc. The study of the phenomena raised profound ontological issues, which we are still attempting to understand. Indeed, an analysis of these ontological concerns raises a conceptual window through which we can
crawl to gain fresh insights on the issues that motivate the attacks of crypto-
positivists on diverse forms of research delineated in this book.

In this context Phil takes us into an important domain of analysis where we gain a deeper insight into the nature of scientism and its relation to crypto-positivism. Traditional positivism was obsessed with measurements and predictions of measurements. In the larger scientific community, especially among many philosophers of science, a notion of semantic realism gradually came to replace a measurement-oriented positivism. Semantic realism expanded the definition of empiricism to allow for the admission of data that cannot be observed in traditional ways — this is what Carspecken means when he refers to “excess content.” When educational researchers point to the “death of positivism,” it is this move in the philosophy of science they typically point to as proof of positivism’s passing. While it is the case that a form of semantic realism has gained ascendance over traditional positivism in these circles, it is also apparent that in contemporary educational and psychological science elements of positivism are alive and well in modes of evidence-based research that always involve measurement of academic performance and cognitive ability. In this context such notions are treated the same way as substances are taken up in traditional modes of biology and chemistry and also in Newtonian physics.

Thus, Phil maintains in this context that formally speaking, much contemporary science operates in a space characterized by tension between scientific realism and positivism. Scientific realism posits that the phenomena of the world exist objectively, that is, unconnected to the mind of the perceiver. Those things that are not observable, realism maintains, are constructed in the same way as things that are more easily observable. Thus, regardless of whether we associate scientism with positivism or scientific realism, both constructions rely on the ontological notion that all phenomena consist of substance. This is a central tenet of Carspecken’s argument in this chapter — a concept that is profoundly valuable to any epistemological/ontological understanding of a critical complex mode of research.

Indeed, the ontological rubber hits the research road in Phil’s chapter when he argues that the inner experience of human beings (most of the time central in studies of the social, psychological, and educational domains) cannot be researched and analyzed in the same way that outer experience (the domain of many dimensions — not all — of the physical sciences) can. Thus, in this context selfhood, consciousness, and the notion of the “I” cannot be studied in traditional ways by the natural/physical sciences because such concepts are not substances. Research, Carspecken warns, must be very careful with these concepts, as “inner-sense” is produced intersubjectively (by diverse people interacting) and differs from culture to culture.

Returning to Carspecken’s concern with preexisting (a priori) constructs and concepts in the ideological, epistemological, and ontological domains, Phil asks how much such assumptions shape the knowledge researchers produce. If the scientistic belief that everything is made up of substance rests at the foundation of research, then a quest for objective depictions of the phenomena of the world is
presupposed in such inquiry. Such preexisting assumptions shape what researchers are going to find before they begin their research. Since the experience of human beings is multidimensional and is not made up simply of experiences of phenomena in the physical universe, Phil maintains that the preexisting notions of substance and objectivity are not useful in this context.

Instead, scientistic research on human phenomena such as education has operated by shredding human experience of its subjective features and restricting its study to its “objective” features – for example, I.Q. testing. What we get in such studies is a profoundly reduced view of humanness and the complexity of the human experience. Such perspectives have shaped the way the world has viewed consciousness, thinking, teaching and learning, etc. In the scientistic universe of crypto-positivism and realism psychologists operating in this epistemological/ontological realm, for example, sincerely believe that one day consciousness will be understood via a physical theory that traces its origins to particle physics. In such research nothing will be left unknown about the physicality of consciousness, and with such knowledge psychologists will be able to predict accurately what humans will do next.

A compelling feature of Carspecken’s chapter involves this epistemological/ontological investigation of complexity theory’s notion of emergence. Emergence involves the notion that in complex systems patterns, configurations, and characteristics develop that cannot be sufficiently accounted for by alluding to the system’s original properties and relationships. For example, none of the properties of a thunderstorm could be used to predict the emergence of a tornado. We only know that tornadoes emerge from particular types of thunderstorms by observing them over the years. Carspecken posits that emergence is grounded on the notion that the whole can be greater than the sum of the parts, in the process wondering which phenomena should be called emergent and which should not since there are so many types of processes that are labeled as such. In the case of educational research, Carspecken asserts that the type of emergence that is most relevant involves the emergence of subjectivity or consciousness.

Reflecting the larger concerns of his chapter and certainly of Doing Educational Research: A Handbook in general, Carspecken maintains that most research into the emergence of subjectivity/consciousness is positioned securely in the context of scientistic ways of seeing. In my work on postformalism (a critical theory of cognition that understands mind as an emergent social construction in a larger context informed by power) Carspecken’s questions about the crypto-positivistic/realist dimensions of emergence theory are profound and must be addressed. When we view the emergence of consciousness in light of a critical complex conception of the social construction of self and a critical ontological notion of self-production, we begin to gain a deeper understanding of the way networks of power and other concerns help shape contemporary selfhood. Concurrently, in a postformal understanding of consciousness analysts understand the capacity of the individual to reshape who she is and how she operates in the world.
As we understand the concept of an emergent consciousness, educational and psychological researchers begin to appreciate the pedagogical possibilities it opens – but only if we get beyond the scientistic notions of consciousness as substance. For a critical complex notion of the emergence of consciousness to sophisticate our understanding of selfhood and thus teaching and learning, it must be viewed as a hermeneutic concept that transcends the notion of scientism. This complex hermeneutic notion of the self is far more supple and malleable, more amenable to transformation and growth than social, psychological, and educational researchers had ever envisaged. This characteristic of selfhood, no matter what socio-political and ideological space from which one operates, can be mobilized for great help to the critical struggle or manipulated for great detriment. With the possibility of an evolving selfhood in mind, critical complex researchers approach inquiry with a renewed appreciation of the possibility, the use-value of their work.

Such researchers know that notwithstanding the influence of cognitive determinists maneuvering under the banner of scientism and its reductionist concept of I.Q., humans can learn to become more intelligent and discerning. As they understand how to and engage in making themselves smarter, they come to realize that selfhood is a far more amazing marvel than previously understood. Appreciating complexity theory’s notion of emergence but ever careful to heed Carspecken’s warnings about the scientistic articulation of the concept, critical complex researchers recognize that no self is without perspective – to exist is to bring a standpoint to lived situations. Emergence as a hermeneutic construct is an amazing and promising property of the physical, biological, social, psychological, and educational world. With a non-substance-oriented emergence in mind we realize that as we come to better understand our own and other people’s perspectives, even newer and deeper insights emerge.

Such understandings applied to self-knowledge require a detailed monitoring of our subjectivity – a key point made by all the authors of this book. In such an analytical context we nurture a meta-awareness of the diverse connections we forge to divergent dimensions of the social and physical worlds in which we operate. Key to this process is the isolation and the release of an egocentrism that blinds humans to the virtual and relational dimensions of our selfhood. In such a context individuals can work to catalyze the emergence of new and more vital forms of selfhood – and in turn new types of community. This tendency for emergence occurs at all levels of reality, and the notion of the individual mind is much more complex, relational, and distributed than we once thought. Thus, researchers have to understand this emergent dynamic at all levels of their research – in the formation of their own selfhood, the consciousness of their research subjects, the social dynamics that they are studying, and the interpretation of their findings. Indeed, critical complex researchers are always looking for that point when things-in-relationship move to a new level of interaction, in the process producing new socio-cultural, political, economic, psychological, and pedagogical dynamics previously lost in the isolation of crypto-positivism and realism and their notion of substance existing in isolation from other dimensions of the world and the mind of the perceiver – i.e., a thing-in-itself.

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In my notion of a critical ontology these ideas are central. In order to gain new levels of insight, humans have to understand the complexity of their own construction so they can remake themselves. Consider how far we have cognitively traveled when we first gain the initial stages of self-consciousness. Imagine how much farther we will have traveled when we become conscious of how this self-consciousness can be used for cognitive growth and insight into the way we are induced to see the phenomena of the world in a particular way. Thus, our growth, our becoming is a fundamental dimension of learning how to be a rigorous researcher. Unfortunately, this is one the aspects of learning to be a researcher that is typically ignored in research courses. As individuals become researchers, the quality of their work will always depend on the knowledges, experiences, and intellectual skills they bring to the task. There is simply no way around this. Knowing the seven steps for producing ethnography will not help if an intellectual foundation such as the one delineated by Carspecken is not appreciated.

Sometimes learning to become a researcher produces a pedagogical moment that moves students of research to gain new insights into the social, historical, and philosophical questions that are so central to the process of inquiry. As we gain these emergent new insights we begin to understand the fallibilities of what crypto-positivism/realism represented as finite and limited. Nothing can limit the possibilities of a critical complex consciousness – a force that can help shape the universe and the social order is nothing to be carelessly dismissed. Imagining what else such a consciousness can do is the first step in making such constructions a reality. Critical complexity is directly concerned with imagining new ways of seeing the world and using such insights to reshape it in more just, creative, and interesting ways. As our conception of consciousness, research, and criticality morphs from a noun to something more like a verb, we move to a new domain. If consciousness is a verb then how do we reconceptualize research and knowledge production? We quickly return to the critical theoretical concept that critical research is designed to expose the relationship between “what is” and “what could be.”

In such a notion substance has nothing to do with the synergy of the relationship, with the emergence of a new level of organizational complexity. As with consciousness, we cannot experience “what could be” through our senses. Concepts and attitudes in scientistic configurations are treated as variables in empirical studies and located in a set of correlational or causal relations. This relegation of such phenomena to the designation of substance is profoundly misleading, as such an act deletes an entire realm of ontological phenomena that shape the astounding nature of psychological activity, social dynamics, and human being in general. In this profoundly important province, Phil maintains that the cause-effect nature of scientism, so central in the crypto-positivist and realist world, inflicts great harm on efforts to appreciate the domain of meaning, culture, social relations, pedagogy, and inquiry into pedagogy. In many ways Carspecken at this point guides us down the Cartesian River to the heart of positivistic darkness – the scientistic domain that demands that we gain a far more rigorous and
epistemologically/ontologically appropriate set of precepts for doing educational research.

Thus, we come to the main theme of Carspecken’s brilliant chapter: the limits of the knowledge that can be produced by scientism. “If a theory of everything really could explain everything,” Phil asks, “then it could explain its own production as a theory?” If it could, then a scientific/crypto-positivist/realist epistemology and ontology would support a mode of research that answered all our questions, told us all we need to know about education while precisely predicting the outcomes of particular educational objectives, curricular designs, and pedagogical methodologies. Obviously, it can’t do this because of the profound complexity of such dynamics. This is so important for researchers, educators, policy makers, politicians, and citizens to understand in an era marked, as Phil puts it, by the “growth of particularly virulent form of scientistic ideology.” Carspecken’s rigorous analysis of this epistemological and ontological cancer is central, obviously, to the larger concerns of Doing Educational Research: A Handbook.

Indeed, contrary to scientistic/crypto-positivist logic, the critical complex refusal to believe that we can operate from what the Greeks called the Archimedean point – the place from which we could see the world objectively and in its totality – does not destroy the value of the knowledge we produce. It merely overthrows the notion that any discourse can provide a final criticism of positivism and the knowledge it produces. Our critical complex criticism is not absolute; it is provided at a historical moment and a socio-cultural location – and that matters. What are we to do about the embeddedness of the self in the research project? The answer is to rigorously study the construction of selfhood, the socio-cultural and political relations of the knower, in the process bringing our understanding of the knower back to her inseparable relationship with the known. Carspecken’s critique of scientism profoundly helps us perform these tasks – currently so unappreciated if not feared by the sirens of scientism and the proponents of an insidious positivism.

Cultural location, for example, profoundly matters in this context. For example, how does the way a North American researcher from Charlottetown, Prince Edward Island views diversity differ from the perspective of an individual from the Sami peoples of northern Scandinavia? The difference of worldviews and ways of seeing and being of these two individuals can help us understand how divergent conceptual frameworks can change what we see about the world. Thus, we can see how important it is in cross-cultural research – and really any inquiry for that matter – for the researcher to listen carefully to her research subjects and position them as co-researchers operating as respected observers of the world. The power of difference, of alterity in these research situations becomes one of the greatest tools in the critical complex researcher’s, the bricoleur’s, and Carspecken’s critical ethnographer’s toolbox. It provides the researcher with not only a fresh view of the topic under study but also, of course, a unique look at her selfhood and the ways she sees the world. In this way educational researchers quickly come to see the limits of the methods of scientism and their ability to “explain everything.”

A theory of everything could not be isolated, Carspecken maintains, from the restrictions imposed from the beginning by the multidimensional complexity of
humanness, language, and everyday practice. In this context Phil asks if in such a
scientistic theory, would we have to explain the detailed process of producing
theories and the subjective role that human consciousness would play in such a
process. Such efforts, of course, are undermined by the pesky realization that
humans are concurrently observers of nature and entities that are observed. This
subjective role involves the consciousness of the researcher, and consciousness
simply cannot be seriously studied by scientific realists, crypto-positivists, or
proponents of scientism. I agree with Carspecken – this presents scientific
psychological and educational researchers with a serious problem. Indeed, it
excludes them from a rigorous examination of most of the central questions of
education.

In this context painted so adeptly by Carspecken, critical complex researchers
understand both the possibilities and limits of research. While there is no limit as to
where our research can take us, there are limitations around the ability of research
simply to provide a true reflection of reality. The concept of rationality is used to
cover up what we don’t know about the world, about the moment in which we are
living. Using reason and positivistic notions of universal, eternal truth, scientistic
reductionists place their faith in the findings of science. Critical complex
researchers may see the same phenomenon that crypto-positivists observe, but
criticalists have an extensive set of conceptual tools to discern the contexts and
processes of which it is a part. With such knowledge they can begin to not only
rethink the meaning(s) of the phenomenon in question but the uses to which such
understandings can be put. Thus, their understanding of complexity undermines
what they can say for certain about the phenomenon, but the same insights can
enhance the possibilities of what can be done with the knowledge they produce
about it.

At the heart of the crypto-positivism’s/scientism’s successful effort to
undermine complexity is the notion of causal determinism. If we know the forces
that are shaping a situation, then we can predict its future – if positivists know a
student’s I.Q., for example, then they can confidently predict how she will do in
her academic future. As I have written elsewhere, numerous scientists in a variety
of areas have argued over the last century that with just a little more time and
research, we will no longer need to conduct any further inquiry into a phenomenon
because we will know everything about it (a tacit theory of everything) – including
its past, present, and future. Thus, reductionism triumphs in such an
epistemological construction, as substance-based science claims a transcendent
position in regard to the production of truth. Such reductionists are hell-bent on
winning the race to certainty and in this context are contemptuous of the ambiguity
produced by critical complexity. When it comes to human phenomena such as the
mind, we begin to realize that there is nothing at this historical point we know of
that is more complex. It takes great conceit to believe that we can know all about it
and even place a number – an I.Q. of 118 – on its capacity to function. In a few
years this will be viewed as a primitive form of psychological science comparable
to nineteenth century phrenology.
The effort to overcome scientistic reductionism’s “know-it-all-ism” demands Phil’s more rigorous insights into epistemology and ontology. And, of course, such views of knowledge and being-in-the-world necessitate new, more rigorous modes of research that are capable of attending to complexity. This, Carspecken knows, is easier said than done, as efforts to embrace the complexity of the lived world while in the process producing knowledge that is focused on the creativity and vibrancy of its interpretation and the pragmatic nature of its applicability to problem solving are profoundly difficult in rationalistic and reductionist educational institutions. When faculties/colleges of education are grounded on modes of instrumental/technical rationality – focused exclusively on “how” questions as opposed to “why” questions – then modes of scientism and crypto-positivism continue to flourish with all their reductionist and hegemonic inclinations. Innovative scholars such as Carspecken are relegated to the peripheries of educational research. We cannot at this perilous time in educational history and world history in general allow this to happen.

RADICAL LISTENING

Ken: Joe’s comments on Greg Martin’s, lisahunter’s, and Peter McLaren’s chapter in the Red Book contained an amazing piece on radical listening – a construct that was “so Joe”! One of Joe’s many commendable attributes, a distinctive feature, was the way in which he listened attentively to what was being said by others. He had the capacity to listen for meaning without using the time to frame what his next turn of talk would be. He followed the train of talk and his initial contributions were focused on making sense and ascertaining the possibilities of what was being suggested. He was quick to see the affordances in others’ ideas. Even though the chapter that the following introduction was written for is not read published in the second edition of the Handbook, the text that Joe prepared makes a substantial contribution to the literature and is included below.

Critical action research is one method of engaging in the difficult and often unrewarded task of “doing justice.” When educators engage in such research they are confronting the various forms of oppression that hurt students and teachers all around the world. Critical action research allows teachers, students, and parents to confront the cruel practices of dominant power by taking part in a study of how they function – actions that are typically difficult for many to identify, as they operate incognito in the guise of validated educational practices. A key aspect of critical action research involves the notion of radical listening. Such a concept involves those engaged in the research listening to and learning from those who have been marginalized by diverse power blocs.

– White people to the non-white
– men to women
– the well-to-do to the poor
– heterosexuals to homosexuals
– colonizers to colonized
– Christians to people from other religious backgrounds
able bodied people to individuals with disabilities

In this context radical listeners attend to the perspectives of the marginalized in a way that helps them understand the causes of and ways of ending oppression and suffering. While it is a mistake to ever romanticize (or exoticize) the perspectives of the marginalized, there are still many exciting secrets to be gained from subjugated knowledges that can change the lives of critical action researchers and the lives of the subjugated. How does one’s positional superiority vis-à-vis power shape or misshape the consciousness of people from dominant locations in the web of power? How do certain forms of scientific and curriculum knowledge become engaged in the perpetuation of colonialism and marginalization?

The radical listening of critical action research places researchers from colonizing societies on a road to respecting and learning from diverse forms of knowledge. It helps marginalized people reassert the validity of their own data and gain more control over the research being conducted about them. Both of these goals resonate well with the critical complex attempt to learn from subjugated knowledges. Such learning is so important to the reconstruction of Western consciousness in a more just and humble manner, as well as in the effort of critical researchers to gain excluded levels of awareness, to appreciate the fissures and defects of positivist ways of seeing, and to reframe their view of self, other, and world. In such a praxiological context we are far more capable as critical complex researchers of reinventing the world in a way that attacks the causes of human suffering.

All critical participatory research explores the way the knower is implicated in what is known, the inseparability of the researcher from what is researched, and the “interested” nature of all knowledge produced. When positivists fail to appreciate the forces that shape the consciousness of the researcher, they are less able to appreciate the nature of how particular knowledge was created and how particular perspectives took shape. The process of their construction reveals so much about not only the quality but also the reason such knowledge came to exist in the first place. Thus, the positivist use of the term, objectivity, often hides many of the ideological, cultural, and colonial biases that are always present in the production of knowledge.

It is amazing on numerous levels that positivist researchers claim a god-like perspective on the world, as they are able to see all things from no particular point in time or space. Obviously, such an erasure of the positionality of the researcher is problematic. One of the first and most basic questions a critical action researcher must ask involves what are we to do about the researcher’s embeddedness in the research process. While the answer to such a question is quite involved, the one thing that can be said succinctly at this juncture is that critical complexity does not accept the positivists’ objectivist “solution” of simply ignoring it. In the crypto-positivist world in which we now operate, critical participatory action research comes across to many hegemonized scholars as a great mystery. If we – the positivist experts – have the methodology to produce “the truth” about an educational situation, why do we need the cooperation and participation of the

xxxv
“ignorant”? Such positivistic arrogance must be confronted and exposed for what it is.

Contesting positivist arrogance and the oppressive rituals such ways of thinking support, the authors maintain, demands research methods capable of critique. Such critique, unfortunately, is almost always met with mainstream retaliation. Henry Giroux recently reminded me in this context that critical scholars/researchers have been vilified and harassed in the field of education since critical pedagogy came into existence in the late 1970s and early 1980s. As I listened to Henry make this statement, I realized that many of us operating in the critical domain often become so accustomed to such a reality that we find it difficult to imagine a different situation. It simply becomes an expected part of our everyday lives. Yet, researchers working from critical standpoints know they must continue – they must keep on producing modes of critical action research that situate their studies in the matrix of dominant power blocs in ways that specify the way power mediates knowledge. In this way they are equipped to expose the ways that the pedagogical practices of everyday life are related to these larger political and ideological forces.

One of the great tragedies of twenty-first century life involves the realization that at the same time as we are coming to understand the unfathomable possibilities of human consciousness, dominant power works to regulate the lives of individuals in ways that are not in their interests. Of course, this is an intricately complex process, and power both wins and loses efforts to ensnare individuals in its disciplinary net. It is safe to say, however, that dominant power’s operations work enough of the time for power wielders to continue to spend hundreds of billions of dollars to induce people to do things that are in opposition to everyone’s and everything’s well being. Power works best when no one knows what it’s doing or that it’s power at work. This is why it’s so important to look behind the imperial drapes, make sense of what we see, and expose the mass media delusions crafted by the pimps who promote corporate greed and ideological indoctrination by disempowered teachers in standardized schools as good things.

Western power wielders came to understand in the eighteenth and nineteenth centuries that it was much more effective to develop systems of truth and discipline that would help people “regulate” themselves than to physically coerce them to obey the mandates of power. Internal regulation simply worked better than external coercion – it elicited less resentment and resistance. In this system of internal regulation, dominant power enters into the body where it shapes affect, attitudes, and interests in a way that resonates with the requirements of hegemonic power blocs. Such a thanocentric view of the individual as an object to be manipulated illustrates the ethical and ontological poverty of contemporary Western life – a way of life it is spreading around the planet at an alarming rate. Schools, of course, in this hegemonic struggle become primary battlefields for the hearts and minds of teachers and students.

The existence of these Western hegemonic regulatory systems makes it profoundly important that critical researchers view these frameworks from as many perspectives as possible – diverse cultural perspectives in particular. People from social and cultural backgrounds different than ourselves can usually see the
implicit conceptual frameworks that shape our consciousness and activities better than we can. Critical complex researchers take advantage of this epistemological gift and seek out the perspectives of those who come from divergent places in the web of reality. Listening carefully to the perspectives of peoples from diverse cultural backgrounds can uncover assumptions we make in our research that changes us forever. Our ethnocentrism, cultural arrogance, racial and colonial privilege can be more clearly seen through the eyes and ears of individuals who have been victimized by such orientations.

Western epistemologies and research methods see such a tiny dimension of what is occurring in the world. It’s as if traditional positivist epistemology relied on the measurements of a thermometer to tell us about the nature of the physical world or I.Q. to reveal the workings of the mind. Compared to what is possible as we gain new insights from diverse and yet unimagined social, cultural, and psychological locales, the positivist reality that grounds the “commonsense” of contemporary Western life is rather thin and denuded. When we add to this the aforementioned arrogance of many positivists that leads them to believe that other ways of seeing and producing knowledge are inferior and even primitive in relation to mainstream Western science, the problem intensifies. From the perspective of many non-Westerners, the positivistic correspondence epistemology produces not a “realistic” mirror image of reality but more a funhouse mirror with bizarrely and often humorously distorted images.

As I radically listened to members of the Rosebud Sioux Tribe (the Sicangu People) of South Dakota discuss their encounters with many mainstream Western anthropologists, I was (and still am) fascinated by the way they had suffered for generations from the bizarre pictures painted of them in this scholarly context. I also gained great insight, as tribal members with great humor told stories of Western anthropological misconceptions of them. “The Sioux are a taciturn and humorless people,” the anthropologists wrote. “Obviously,” several members of the tribe told me, “they didn’t get that we were making fun of them the whole time they were studying us.” A positivist correspondence epistemology? No, more an epistemological funhouse mirror. A key aspect of becoming a good researcher, not to mention a critical action researcher, involves understanding these dynamics. It involves freeing ourselves from the umbilical relation to dominant power and its misleading epistemologies. Although positivists vehemently deny the importance of such dynamics, we believe they are central to the research process – especially, of course, if we value social justice and the recognition of oppression.

Consider positivistic pronouncements about the dismissal of the role of the researcher, the view of human input into research as a contamination of the process of inquiry in light of these ideas. If the correct methodological steps are followed, the researcher is simply not a part of the research process. The only role for the researcher is “troll at the bridge,” the one who simply makes sure the proper steps are followed. In the positivistic mind-set the cultural location of the observer is irrelevant, for if we just follow the 39 steps faithfully (rigorously) we will all see the same reality. Even though positivists often speak loudly about the ethics of research, the idea of valuing the unique and powerful insights of those people they
research and treating subjects as co-researchers is viewed as an assault on the expertise of the “trained researcher.” It is the ethical and ideological duty of the critical complex researcher to assess the designs and methodologies of mainstream research in light of the power structures and the insidious ways such frameworks shape the knowledge produced in these circumstances. This is the study of the politics of knowledge, the analysis of how power asymmetries shape the production and reception of all knowledge that is produced as well as how it is used in the world.

This doesn’t even get into the more traditional domain of knowledge politics that includes the important investigation of how research priorities and the ideological interests of funding agencies can affect what issues are studied and which ones are not. In a recent conversation with Peter McLaren, he told me he was very upset about his lack of funded research. Of course, I understand his frustration and as I told him, we produce knowledge that scares away the main funding agencies. Scholars who have operated in think tanks or higher education have all heard the phrase, “researchers have to follow the money.” Sometimes the researchers who live by this mantra end up in bed with some pretty unsavory operators with less than pristine motives.

As they awaken on the “morning after,” some (not all) of these researchers begin to understand this dimension of the power-knowledge relationship – that power is not only a restrictive but also a productive force that constructs ways of seeing and being. Positivists and their covert operatives in contemporary domain – the crypto-positivists – need to be seen more often as the “natives under study.” In this context they can read about the ways they are perceived by diverse others who may help awake them from their dominant Western cultural trance. At this juncture they can begin to understand the social construction of their own selfhood and the ways they have been hegemonized by the dominant politics of knowledge and the ideologies of dominant power.
Kenneth Tobin and Shirley R. Steinberg

Foreword to Second Edition

Contributing to an Art of Educational Research

From the moment we envisioned Doing Educational Research we embraced the idea of bricolage, that educational research and practice could benefit from the use of diverse methodologies and associated methods. Our standpoint was polysemic and we valued difference as a resource for learning. In fact, we anticipated that different methodologies would provide different lenses into social lives, affording insights into diverse framings of what was happening and why it was happening. Also we were acutely aware that any set of frameworks would illuminate social life in particular ways, affording certain insights and possibilities while obscuring others. A tacit understanding we shared, as editors and scholars, was that no perspective and its associated framework would provide a unique view of truth. Furthermore, we did not insist that methodologies used in research needed to be commensurable. Indeed, polyse mia acknowledged the desirability of going beyond tolerating difference or merely understanding others’ standpoints. On the contrary, we regarded difference as a resource for creating an expansive system of knowing education.

In this second edition of Doing Educational Research we move further along the pathways of understanding and expanding the logics of educational research. The 21 chapters of the book do not present techniques for researchers, but instead delve into systems of logic that underpin what we do and can do in educational research. As a set, the Handbook created in this second edition eschews oversimplified categorical ways of teaching and learning educational research – as methods courses such as quantitative, qualitative, and mixed methods. Instead, we argue for thoughtful, emergent forms of inquiry that are nuanced, caring, and aware of the transcendent nature of what we learn, what we seek to know, and what we claim to know.

In the spirit of contributing to an art of educational research we offer the second edition of Doing Educational Research, as a contribution to an ongoing conversation that precedes our lives and careers as educational researchers – a conversation that will continue for as long as humanity seeks to understand, through research, what we know and can do. It is a privilege to participate in this conversation and we invite readers to join us in a project we regard as critical and expansive.

Ken: Following the death of Joe Kincheloe I decided to publish an article that he and I co-authored in Cultural Studies of Science Education, as an acknowledgement of Joe’s contributions to the sociocultural turn in science.
education. When Wolff-Michael Roth and I considered proposing to create a new science education journal, Joe supported the idea with enthusiasm. As it happened, the article, concerning the exaggerated death of positivism, was catalyzed by a review of the first edition of Doing Educational Research. Among other points of critique, the book reviewers adopted a standpoint that the anti-positivist tenor of Doing Educational Research was inappropriate and biased. In contrast, we felt strongly that mainstream wisdom in educational research and policy was saturated by a common sense that embraced positivism. We referred to this as crypto-positivism.

When Shirley Steinberg and I agreed to edit a second edition of Doing Educational Research, affectionately referred to as the Red Book, we obtained permission to republish “The exaggerated death of positivism” as a chapter in the revised edition. In the chapter we argue that approaches to research in the social sciences often embrace schema that are consistent with positivism, even though it is widely held that positivism is discredited and essentially dead. Accordingly, many of the methods used in present day scholarship are supported by tenets of positivism, and are sources of hegemony. We exhort researchers to employ reflexive methods to identify the epistemologies, ontologies and axiologies that are salient in their scholarship and, when necessary, transform practices such that forms of oppression associated with crypto-positivism are identified and extinguished.

It is now more than eight years since the first edition of the Red Book was published. Joe and Ken felt strongly that there ought to be a graduate level educational research publication that explored in depth the logics of inquiry. The book we envisioned would present a diverse range of methodologies and associated methods. We felt it important to provide alternatives to positivism and highlight their affordances. After a few years we were well pleased with the book and had used it in a variety of our classes. We felt that it was time for a second edition, editing some chapters, deleting some, and adding others. It was not that any of the deleted chapters were in any way inappropriate for the Red Book. We felt that already there were strong reasons to feature the scholarship of a new breed of scholars who were working beyond the boundaries of positivism and might stimulate others to innovate and create fresh, bold visions through educational research. Hence in the second edition of Doing Educational Research, we revised 11 chapters and added 10 new chapters (including the exaggerated death). In the remainder of this Foreword to the Second Edition, we include abstracts written by the new chapter authors to orientate readers to what follows.

Christina Siry, from the University of Luxembourg, draws on the UN Convention on the Rights of Child, which outlines children’s right to have their views taken seriously on matters that affect them. Chapter 7 examines approaches to participatory research with children. Several different methods are explored through an overview of research in the field of education, including interviews, visual representations, and pedagogical documentation. The necessity of dialogue is elaborated through a discussion of the ethics of working towards multiple
FOREWORD TO THE SECOND EDITION

perspectives in participatory work with children, and a central argument put forward involves the value of creating knowledge for action.

In chapter 8 Tricia Kress (University of Massachusetts, Boston), uses critical pedagogy and her own research about urban high school youth in the Boston region of the USA, who participated in an after school research club, as lenses to provoke questions about the epistemological, ontological and axiological dimensions of educational research. Kress interrogates the roots of Western, positivist thought underlying typical conceptions of research vis-à-vis concepts such as subject-object relationships, proximity, dialogue, conscientização, and praxis. Tricia examines the relationships between knowledge and power, the researcher’s self in relation to those he or she researches, the role of the body and lived experience in research, and how researchers’ values are revealed through the ways in which they choose to work with minoritized youth.

Gene Fellner (College of Staten Island, New York) is a professional artist and literacy educator. Gene notes that the official lenses through which students are assessed are often overly narrow, privileging quantitative evaluations of student abilities. Too frequently, these lenses exclude the voices of students themselves and data that though not quantifiable might contradict the statistical measures highlighted in official school transcripts. In chapter 9 Fellner applies multilectics to a study of Justin, an underperforming seventh grader in an underperforming school. In so doing he illuminates many of Justin’s strengths, which are not visible in the transcripts that represent him. Multilectics joins the concept of Marxist-Hegelian dialectics with the concept of multiplicity – multiplicity of voices (polyphony), meanings (polysemy), lenses, levels of observation (macro, meso and micro), and modes of communication (verbal and non verbal).

Carolyne Ali-Khan, presently at the University of North Florida, examines the ins and outs of autoethnography in chapter 14. Carolyne explains how and why autoethnography is important to educational research. She positions autoethnography as a liberating rather than domesticating pedagogy. In the chapter she examines the aims and affordances of autoethnography, discusses ways it has been used, and provides examples of a variety of different types of autoethnographies. Carolyne delves into questions about autoethnography as a research method and teaching tool and in a second section she provides a thematically organized annotated bibliography of a variety of autoethnographic work.

In chapter 15 Peter Waldman provides a gripping impressionist tale of an open meeting of Alcoholics Anonymous (AA) using his own voice as an imagined first-person-present of an addicted, angst-ridden narrator. He provides an imagined present because the tale is about the past and is recalled through memories and interpretations of texts. The identity conflict he experiences during an AA meeting is a paradoxical position of marginalization within an already marginalized group. This dramatized positionality is the engine that propels the narrative forward more so than a plotted beginning, middle and end, which is the narrative logic of the life story in AA, and more so than the meeting itinerary which is arbitrary for the reader unfamiliar with AA. There is another narrator’s voice, too, another first
person ‘me’ mingling with Peter’s addicted past that is present in the text: a present/future self, an educational researcher with a small pile of notions requiring exegesis and a decades long AA member for a research participant.

Malgorzata Powietrzynska, a recent graduate from the Graduate Center of CUNY, describes the logics of her mindfulness-focused research against a backdrop of the current state of the field in the educational setting. In chapter 16 Malgorzata addresses the ongoing debate over which methodological paradigms are appropriate for conducting studies involving contemplative states. Development and enactment of interventions is presented as vital to conducting authentic inquiry. She discusses in depth two mindfulness-based interventions – breathing meditation and heuristics – and presents a case study to illustrate the workings of the two interventions. Ethical issues that may arise in mindfulness-based research are also considered.

Marissa Bellino, the author of chapter 17 (currently a doctoral student in urban education from the Graduate Center of CUNY), describes how photovoice evolved in her environmental science classroom from a research method to a methodology. She discusses her emerging critical identity and shares how it mapped onto the photovoice process during two years, addressing specifically her shifts in thinking about the nature of research. Included are some of the participatory methods utilized in conjunction with photovoice as a means of exploring young people’s senses of place. Data from a second year of photovoice are explored with a focus on the multiple ways data were utilized by students to generate research topics, narratives, and critical presentations about their urban environment. Marissa concludes by addressing implications of using photovoice in reframing environmental education as more local and relevant to the lives of young people and expansive ways to think about research.

Mark Vicars, from Melbourne, Australia, sets out to ‘trouble’ how research on teaching and learning gets done. In chapter 18 he draws on experiences of re/presenting diversity and divergence in educational studies; articulating a performative and artful praxis as a productive site of and for re/presenting resistance(s) to pedagogies of the normal. Troubling method remains a risky endeavor within the academy. Over the last decade, research funding requirements and rubrics have framed and increasingly narrowed possibilities for methodological diversity and discussion in educational research. Mark shows how the rigorous rising of method has rewarded normative method/ological ‘dispositions, positions and position-takings …’ (Luke and Carrington 2002, p. 2) and by un/doing method one can easily become haunted by the tensions of transgression.

In the final chapter of Doing Educational Research, Stanford researchers Cheryl Holzmeyer and John Willinsky argue that the publication of the National Academy of Sciences’ report Scientific Research in Education (2002) catalyzed a spectrum of critical commentary on the meanings of “scientific” research, among education scholars and beyond. Simultaneously, new online academic publication infrastructures and the open access movement suggested possibilities for more direct public engagement with education research. However, these possibilities remained inextricable from fraught epistemological and ethical questions about the
terms of engagement with research, in academia and beyond. Since then, broader “open science” initiatives have emerged, enabled by the Internet and digital platforms. Though framed in capacious and universal terms, many open science initiatives are devoted to epistemological projects that embody narrow, particular, positivist approaches to “scientific” and “evidence-based” research — to the exclusion or marginalization of many other kinds of evidence and knowledge. These include qualitative, interpretive and community-based participatory research, as well as different kinds of local knowledge. This chapter argues that research dissemination practices, including online publication infrastructures and “open science” initiatives, are constituted together with knowledge hierarchies. “Open science” initiatives are simultaneously technical and social; they are inevitably value-laden, in ways that do not serve all types of scholarship equally. This point underscores the need to foster critical interventions and community-based collaborations on behalf of public, democratic scholarship underpinned by multiple social epistemologies, alongside publishing and beyond new information technology infrastructures.

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I. INTRODUCTION
The last half of the first decade of the twenty-first century is a strange time for educators. Many of the gains many of us thought we had made twenty years ago are under assault and many of the epistemological fights for the benefits of multiple ways of doing educational research in which we were forced to engage in the 1980s are breaking out again. The right-wing recovery movement – a reeducation of the public to accept Eurocentric and often male ways of both being and seeing – has shaped everything from the corporatization of the public space, the social positioning of poor people and people of color, the politics of public knowledge to the ways we conceptualize and validate research about education. Indeed, it is a strange and challenging time. It is in such a Zeitgeist that we have put together Doing Educational Research. After having lived through this last 25 years, we have come to believe that a book dealing with diverse, innovative, challenging, and rigorous ways of conducting educational research that is both thought-provoking and practical is sorely needed. To accomplish this task, we have brought together some of the most innovative minds in contemporary educational research. We believe that the combined efforts of these scholars have produced a unique and highly usable text that will work to engage new generations of scholars while reinvigorating mature researchers in the complications and vagaries of doing educational research.

We find educational research intrinsically exciting and even mysterious. No matter how much the mavens of evidence-based inquiry in right-wing movements may insist that there is one right way to produce educational research, we are convinced of the power of multiple ways of seeing the world – the educational world in particular.

We believe that there are yet unexplored domains of human consciousness, cognition, teaching and learning. While we make no claim that we have achieved some transcendent way of approaching knowledge – not by a long shot – we do believe that some of the ideas and concepts explored here may lead the wisest among us to new domains of human thinking, exploring, being, and doing.

A STARTING POINT FOR RECONCEPTUALIZING EDUCATIONAL RESEARCH

We construct Doing Educational Research, thus, as a starting point for something much greater than what is produced here. In the finest critical tradition the authors writing here initiate an exploration of what could be: new exciting ways of
understanding educational phenomena, being students of the world, and changing those aspects of education that bring about injustice, pain, and suffering. Indeed, we believe in the power of the ideas the authors of this book delineate in their chapters, and in this context, we sense we are still in the early stages of a journey that will eventually change the basic ways we conceptualize both the act of knowledge production and the process of teaching and learning.

Employing these diverse ways of seeing and making meaning delineated in the following chapters, educational researchers begin to discern interconnections between ideas, physical objects, political decisions, social circumstances, and the teaching and learning processes that have been previously ignored. A complex critical mode of educational research is aware of many different perspectives, the vantage points of diverse disciplines of knowledge (e.g., history, philosophy, economics, psychology, literary criticism, sociology, etc.) and transdisciplinary ways of seeing such as cultural studies. Educational researchers informed by these multiple perspectives understand relations between values and different interpretations of the world in general and education in particular. They understand the way one’s location in the world or position in the web of reality (e.g., one’s race, class, gender, sexuality, religion, ideology, epistemology, etc.) helps shape how one sees self and world. Educational researchers who do not understand these dynamics of positionality (the way one is situated in the world) and their impact on the questions we ask of education, schooling, politics, etc. are babes in the research woods. Their claims of objectivity fall on fallow ground.

The researchers who have written the following chapters understand these issues and work to follow them to new research spaces and intellectual places. With this in mind we want our readers to accompany our authors on these journeys. Indeed, we want them to recognize and understand the benefits of diverse ways of thinking and understanding the world and the cosmos of education. While we deeply respect those who have come before us and have helped us get where we are, we are ambitious – we want to go farther into the epistemological and ontological fog. While important benefits have historically come from educational research, past practice in the domain and the contemporary regressive efforts to reclaim the worst of such ways of researching are insufficient to the task of improving education.

Not only is there more to learn, more to be addressed, more to do, contemporary educational researchers must have the skill and will to fend off the regressive purveyors of one-truth, monological, and reductionistic ways of viewing education. In this context the researchers who crafted this book provide alternatives to the arrogance of positivist reductionism with a radical humility, a fallibilism, an awareness of the complexity of our task. We are aware of how little we know about the immensity of it all, but we push on. We view ourselves and our ways of seeing in the light of new horizons and new contexts, in the process recognizing previously unnoticed connections. Such connections alert us to new dimensions of what we are capable of engaging – the ones we previously missed. Critical, yet humble, we push for something better.
BEYOND HYPERRATIONALITY: INTO A NEW DOMAIN OF CRITICALITY AND COMPLEXITY

Obviously, one of our most important concerns in this volume is to avoid the surge of hyperrationality and the instrumental rationality that characterizes it. Such a rationality involves an obsession with means rather than ends, method, procedure, and efficiency rather than an effort to understand the world so we can better serve the needs of human beings. As this hyperrationality limits questions to “how to” rather than “why should,” we are reminded of the meticulous Nazi medical researcher obsessed with recording and analyzing the “cephalic index” (the shape of one’s head) of those entering Hitler’s death camps while ignoring the moral implications of genocide. Concurrently, we understand that resistance to such hyperrationalism does not necessitate the embrace of an irrationality characterized by a nihilism and relativism that offer no hope for scholarly growth or ethical action. In Doing Educational Research we avoid these untenable extremes and search for new and more compelling modes of reason – in other words, new forms of knowledge production that allow us to understand more so that we can engage in empowered action for our individual and social good.

As you read the following chapters, one begins to understand that all of the authors in this volume are searching for something better, are attempting to move into a new domain of educational research. All of them are concerned with the role of the self in research, the role of relationship(s) and multiple contexts in understanding pedagogical phenomena. With these concerns at the front burner of our consciousness, we attempt to blaze new trails into the epistemological (the branch of philosophy that deals with knowledge) and ontological domains (the branch of philosophy that deals with the nature of being in the world). In the epistemological domain we begin to realize that knowledge is stripped of its meaning when it stands alone. This holds profound implications in education and research because more positivistic forms of educational science have studied the world in a way that isolates the object of study, abstracts it from the contexts and interrelationships that give it meaning. Thus, to be a critical researcher that takes the complexity of the lived world into account, we have to study the world “in context.” All of the authors here agree that we have to search for the interrelationships and contexts that give knowledge meaning while avoiding reliance upon decontextualized study.

Operating in the ontological realm educational researchers understand that to be in the world is to be in relationship. People are not abstract individuals who live as fragments, in isolation from one another.
Humans come to be who they are and change who they are as a result of their interrelationships, their connections to the social sphere. They learn to think and talk via the socially constructed languages, deport themselves via cultural norms in their communities, and take care of themselves by imitating significant others in their immediate environment. Race, class, gender, sexual, religious, geographical, and place affiliations exert powerful influences on how they see themselves and their relation to the world. To be human is to be in relation to …. And, importantly, for those engaging in educational research, we understand that to be human is to possess the power to change, to be smarter than we now are, to engage in praxis – transformative action informed by the insights gained from our inquiry.

As most of us know by now, many observers have come to the conclusion that the simplicity of Cartesian rationalism and mainstream forms of educational knowledge production has not met our needs. This is the realization that is being challenged by those who would attempt to recover the infallibility of Western traditions. The web of reality is composed of too many variables to be taken into account and controlled. Scientist Illya Prigogene (Prigogene and Stengers 1984) labels this multitude of variables, “extraneous perturbations,” meaning that one extraneous variable in an educational experiment can produce an expanding, exponential effect. So-called inconsequential entities can have a profound effect in a complex nonlinear universe. The shape of the physical and social world depends on the smallest part. The part, in a sense, is the whole, for via the action of any particular part, the whole in the form of transformative change may be seen. To exclude such considerations is to miss the nature of the interactions that constitute reality. The development of a reconceptualization of educational research does not mean that we simplistically reject all empirical science. It does mean, however, that we conceive of such scientific ways of seeing as one perspective in the complex web we refer to as reality.

ACCOUNTING FOR THE COMPLEXITY OF THE EDUCATIONAL COSMOS

All of the authors of Doing Educational Research attempt in their own way to account for this complexity and develop ways of seeing and being that avoid reductionism. As educational research comes to recognize the complexity of the lived world with its maze of uncontrollable variables, irrationality, non-linearity, and unpredictable interaction of wholes and parts, they begin to also see the interpretative dimension of reality. Educators have been “scammed” by a science that offers a monological process of making sense of the world. Critical researchers who appreciate the depth of this complexity maintain that we must possess and be able to deploy multiple methods of producing knowledge of the world. I (Joe Kincheloe) – borrowing from Norman Denzin and Yvonna Lincoln, Claude Levi-Strauss and Jacques Derrida – have referred to this elsewhere as the bricolage (Kincheloe 2001, 2005; Kincheloe and Berry 2004). Kathleen Berry and Shirley Steinberg extend our understanding of the bricolage in their chapters in this volume.
Such methods provide us diverse perspectives on similar events and alert us to various relationships between events. In this complex context we understand that even when we use diverse methods to produce multiple perspectives on the world, different observers will produce different interpretations of what they perceive. Given different values, different ideologies, and different positions in the web of reality, different individuals will interpret what is happening differently. We never stand alone in the world, especially when we produce knowledge. We are connected and constantly affected by such connections in every step of the research act. Understanding these aspects of the connections between the knower and the known modifies the very way we approach knowledge, research design, research method, and interpretation.

When inquiry is conceptualized as a complex process we begin to understand that research is not something employed by solitary negotiators operating on their own. Educational researchers use language developed by others, live in specific contexts with particular ways of being and ways of thinking about thinking, have access to some knowledges and not others, and live and operate in a circumstance shaped by particular dominant ideological perspectives. In its effort to deal with previously neglected complexity, the view of research offered here appreciates the need to understand these contextual factors and account for them. Connected, critical researchers sensitive to the complexity of the lived world are not isolated individuals but people who understand the nature of their socio-cultural context as well as their overt and occluded relationships with others. Without such understandings of their own contextual embeddedness, individuals are not capable of understanding from where the prejudices and predispositions they bring to the research act originate. Any educational research that attempts to deal with the complexity of the lived world must address these contextual dynamics.

The editors and authors of *Doing Educational Research* maintain that these, social, philosophical, political and pedagogical theoretical knowledges are essential to the development of a rigorous and complex mode of educational research capable of lifting us to a new intellectual, agency-enhancing, action-based domain. In the social theoretical domain, for example, we might ask how does the existence of socio-economic inequality along the axes of race, class, gender, sexuality, physical ability, religion, and language influence the way we approach research. What happens to our research when we bring an understanding of power and justice to our analytical table? What is the effect of social theoretical insight on the subjectivity and context-dependency of knowledge production? Might, for example, the knowledge emerging here help shape the way we answer questions about the curriculum? About school purpose? About strategies for reform? About the control of knowledge? About the disturbing covert political agendas that motivate the research and research policies of particular political and educational leaders?

So-called evidence-based research and hyperrationalistic modes of positivist inquiry do not help us answer such questions. How does evidence-based research help us answer questions, about the purpose of schools? Social theory viewed in relation to pedagogical theory in this context profoundly enhances the ability of
educators as critical thinkers to evaluate the worth of particular educational purposes, public knowledge policies, articulations of curriculum, and evaluation practices. Indeed, as you read the various chapters of Doing Educational Research, it becomes increasingly obvious the importance each of the authors places on such social theoretical insights. The editors and authors believe that these theoretical modes help educational researchers – as well as teachers and students – escape the well regulated and administered world that unbridled rationalism works to construct. Critical, connected researchers sensitive to the complexity of socio-educational reality use these theoretical tools to sidestep new models of social control that put a chokehold on individual and social freedom. They use these tools to enhance their own and other individuals’ agency.

As we engage in research to enhance our agency to fight the power of oppression in its contemporary hydra-headed forms, the researchers operating here draw upon a critical complex theory of epistemology to provide insight into the nature of pedagogical knowledge. Rejecting hyperrationalistic notions that there is a monolithic knowable world explained by positivist science, an epistemology of complexity views the cosmos as a human construction – a social creation. The world is “officially” what dominant groups of humans perceive it to be. This complicates our notion of theory. Positivistic/rationalistic theories were simple to the extent that they claimed truth-value on the basis of how they corresponded to true reality. More complex, counter-positivistic theories study the various philosophical and social groundings of diverse theories, learn from them, and understand the social construction of them all. In the theoretical speculations grounding our research, we take this understanding of social construction and add the critical theoretical, hermeneutical, feminist, and fallibilist dimensions. Our pluralistic and multiperspectival orientation is omnipresent, as we seek benefits from a variety of social, cultural, philosophical, and theoretical positions.

In other work I (Joe Kincheloe) have used the term critical constructivism (2005) to denote my epistemological perspective and postformalism (Kincheloe and Steinberg 1993) to denote my cognitive theoretical orientation. A short description of critical constructivism might be helpful at this point to ground the theoretical maneuvers operating in this reconceptualization of critical thinking. An epistemology of constructivism has maintained that nothing represents a neutral perspective, in the process shaking the epistemological foundations of modernist Cartesian grand narratives. Indeed, no truly objective way of seeing exists. Nothing exists before consciousness shapes it into something we can perceive.

What appears as objective reality is merely what our mind constructs, what we are accustomed to seeing. The knowledge that the world yields has to be interpreted by men and women who are part of that world. Whether we are attempting to understand the music of West Africa, the art of Marcel Duchamp, the social theory of Max Horkheimer, the epistles on indigenous knowledge of George Dei, the curriculum theory of William Pinar, or the insights into hermeneutics of David Jardine, the constructivist principle tacitly remains. For example, most analysts don’t realize that the theory of perspective developed by fifteenth-century artists constituted a scientific convention. It was simply one way of portraying
space and held no *absolute* validity. Thus, the structures and phenomena we observe in the physical world are nothing more than creations of our measuring and categorizing mind.

A critical constructivist epistemology forces educational researchers to ask:

- Does much of the research conducted in the field of education simply reflect the context, values, and assumptions of researchers?
- In light of such constructions, what is really meant by the construct objectivity?
- By what processes are our constructions of the world shaped?
- Are our psychosocial dispositions beyond our conscious control?
- Do we simply surrender our perceptions to the determinations of our environment, and our social, cultural context?
- What does this process of construction have to do with the education of pedagogical researchers?

**DIVERSITY AND EDUCATIONAL RESEARCH: THE POWER OF CONTEXTUALIZATION**

Researchers who understand complexity understand why we ask these questions; they understand that knowledge producers, teachers, and students perceive the world from a center located within themselves, shaped by the social and cultural context in which they operate, and framed by languages that contain within them tacit views of the world. As they dig deeper into the contexts surrounding the construction of self and the lived world of education broadly defined as well as schooling, research sensitive to complexity find that students from different racial, ethnic, and class locations will relate to education in different ways. They learn from their studies that if students who fall far from the middle class, white, English speaking mainstream are not provided assistance by insightful teachers, they will often become the victims of decontextualized ways of producing knowledge about education. Critical researchers aware of these complex dynamics understand that such students will not fail because of some inability or lack of intelligence but because of a set of forces unleashed by their relation to what is often labeled the “common culture.” Indeed, we learn that the more educators use the term, common culture, in an unexamined way, the more those students who fall outside of its boundaries will fail.

Researchers who understand this contextual complexity appreciate the notion that Western culture and Western colonized cultures do not present a homogeneous way of life but a domain of difference shaped by unequal power relations. They understand that they must act on an appreciation of the way these differences shape people’s relationships to various institutions. If everyone is seen as a part of some narrow articulation of a common culture, then those who don’t fit the mainstream criteria will find themselves looking into the society’s institution as unworthy outsiders. Critical complex researchers work to understand these important social tendencies, make sure that steps are taken to include everyone in a high quality education, and avoid the deficitism that emerges when such ways of seeing are disregarded.
The way these factors play out in the everyday life of school is multidimensional, complex, and always significant. When classroom instruction is driven by technical standards with their fragmented factoids, the same pedagogical actions take place repeatedly without regard for who succeeds and who fails – in particular, what social groups succeed or fail over time. A creative way of merely delivering content, no matter how ingenious it may be, still works to produce much the same results as long as the epistemological assumptions are the same. Thus, to avoid falling into these age-old traps, researchers must help educational leaders, politicians, and teachers understand both the social context that shapes learners and the epistemological context that molds the way knowledge is viewed and thus educational goals are forged in the classroom. Such contextual awarenesses provide teachers with a monitoring system that allows them a cognizance of the multidimensional effects of their pedagogy.

The ability to employ contextualization in the pursuit of multiple perspectives is an important skill promoted by the researchers the editors and authors of Doing Educational Research. As researchers begin to discern the multiple perspectives that always surround any topic, they examine such viewpoints in relation to one another. The insights derived from such an activity lead directly to new ways of seeing and appreciating the complexity of the cosmos. In this context we believe that our approaches to research are particularly important in this disturbing era where standardized curricula are being implemented in numerous national and local educational systems.

When such policies are pursued – on the basis of reductionistic, decontextualized, epistemologically naïve research – the ability of teachers to develop pedagogies for their unique students is subverted. In such decontextualized situations teachers are disempowered – teaching itself is deprofessionalized. The prerogative of master teachers to act on their knowledge of and participation in critical and complex research in a way that accounts for the multiple contexts of schooling and its students is undermined. Their capacity to study the contexts in which knowledge is produced and validated is subverted. In such simplified standards-based, test-driven classrooms, it doesn’t matter who students are or what their specific needs may be – the curriculum has already been mandated on the basis of pseudo-rigorous research. The views of research presented in this volume can help researchers, teachers, and other individuals begin to free us from this ever-worsening pedagogical/epistemological crisis.

In this contemporary quagmire of regressive knowledge production, teaching and learning are becoming less immediate, less connected to the conditions of the community, less involved with what motivates students, less concerned with moral and ethical issues in the life of the school, less connected with other bodies of knowledge produced in different situations, less aware of the ideological motivations that drive educational and political leaders. Moreover, the rationalistic policies emerging from this decontextualized and misleading research about education remove schooling even further from the socio-economic and cultural changes surrounding it. As the capital driven, global information society changes the nature of jobs and the tools required for them – not to mention the need for new
citizenship skills in a new transnational knowledge order – teachers and students drift along in low-level memory work far removed from the commerce of everyday life. The educational researchers writing in Doing Educational Research understand the context of socio-economic, political, and cultural change, so that teachers and students can keep ahead of it and help direct it in positive, democratic, and just ways.

Educational reforms based on decontextualized, rationalistic research remove teachers and students from an understanding of the compelling intellectual and political issues of the day. This is a fatal pedagogical mistake as it sets up a dichotomy between school and the “real world.” Such a division will always undermine motivation, as teachers and students come to see the mandated activities of school as trivial and irrelevant. Critical complex researchers understand that to be able to integrate these understandings into their pedagogies, all educators must appreciate the way the world has changed in the last few decades. The rate of socio-economic, political, and cultural change has accelerated and in this process identities are no longer as stable as individuals are bombarded with information to the point of incomprehensibility. Traditional forms of problem solving where variables are limited and are assumed to act in predictable ways are less useful in an era marked by the complexity of multiple causality and as many have termed it, chaos. With globalization and new forms of information production and communication individuals in various fields have been confronted with more ill structured and divergent problems, cultural misunderstandings and value conflicts, and problems of power inequities. It is apparent that rigorous educational research would include an understanding of this new context and the forms of knowledge, skills, and cognitive abilities needed to deal with it successfully.

Critical research aware of the complexity of these new contexts understand that even the era of images and pictorial representations ushered in by television has never been adequately addressed – if addressed at all – by mainstream educational research and integrated into schooling. Media literacy, a set of skills so central to citizenship and an understanding of the contemporary world, is provided little respect in the mainstream educational knowledge climate of the last half of the first decade of the twenty-first century. When such imagery is not integrated with hypertext and cyberspace schools fall even further behind cultural and informational change. Those students who are conversant with such dynamics learn about them on their non-school time. While their insights and abilities often border on genius, there are still many aspects of the contemporary techno-electronic landscape that are missed by such students.

Nevertheless, the technological abilities obtained by such students exacerbates the gulf between the haves and have nots in alarming ways. Technical rationalistic educational policies that emphasize memorization of data are devised as if we are still living in an oral culture. The cognitive and pedagogical processes required by such decontextualized policies hearken back to medieval schooling where students memorized texts because there was so little literature in print. The editors and authors of Doing Educational Research understand both the importance of these
new developments in communications and the necessity of devising new methods of researching their complex roles in the contemporary education and schooling.

In the context of cyberspace we possess less and less knowledge of the cultural location, the human contributions, the socio-political and economic interests that shape information. In those few classrooms where students are asked who produced the data they downloaded off the Internet the night before, they are often at a loss to answer such a query. They have never considered such a question or its multi-dimensional implications. Information in such situations has lost its borders, it moves and flows in the non-linear and instantaneous ways that human thought operates. Traditional forms of knowledge as it is researched in reductionistic designs and as it is organized in books and official interpretations are undermined in this new context. A subversive element implicitly operates that challenges the informational status quo but at the same time allows power wielders who control informational pipelines to covertly promote data that serves their economic, social, and political interests. Obviously, such a dangerous reality demands new forms of knowledge work and educational inquiry. In an era where the power of economic institutions – especially in relation to control of information – has risen to unprecedented heights the development of our ability to delineate the hidden interests of the knowledge cyber-technology provides us so abundantly is crucial to the future of democratic education. The need for innovative and rigorous forms of educational research has never been greater.

EDUCATION RESEARCH AS COURSE REQUIREMENTS

Traditionally graduate studies have involved research and were regarded as research degrees. Indeed, when I (Ken) was involved in higher education in Australia, advanced degrees that involved coursework (such as honors and masters degrees) were regarded as inferior to those that were research-only degrees. Of course many students who started out on research-only degrees floundered at the beginning, especially if they were not connected to a research group to provide scaffolding associated with how to do and learn from research, what to read, and how to present what you learn from research. Research groups also provided for participation in various forms of peer review and dissemination at brown bag seminars and more formal colloquia. In the sciences research groups have a long history that continues to the present time. In contrast, this was not such a tradition in education where individual researchers often worked independently throughout their career. Perhaps in education it was easier to see a rationale for two trends that have profound impacts on graduate degrees in education – the emergence of coursework as a partial fulfillment of degree requirements and the creation of methods courses designed to teach the foundations of educational research.

In particular circumstances both of these trends make sense – especially if degree candidates cannot participate conveniently in appropriate research groups. However, as is often the case with institutionalization of such trends, rules are created to specify the authorized pathways for obtaining a degree and standards come to be defined in terms of adherence to the rules. Hence, in doctoral and
masters degrees students may be required to take courses in specified areas irrespective of the knowledge they need to attain their scholarly goals and undertake research in a chosen area. Also, method is separated from the substantive research focus and many universities embrace a bankrupt dichotomy of qualitative and quantitative research methods, stipulating that all students should take at least one course in each area.

In compiling this Handbook we did not envision it only as a textbook in qualitative methods courses – though it may find uses in research methods courses. The chapter authors raise issues of epistemology and ontology that are germane to the doing of educational research by individual researchers and research groups. Every chapter serves as an introduction to learn more about the issues it raises and thereby is a foundation for deeper learning to support inquiry in education. For many educational researchers it makes more sense to pursue deeper studies through focused reading in the areas we explore in the Handbook rather than stipulating that graduate students take a time out to study methods that are not relevant to their scholarly interests. Ironically, the tendency to specify particular methods in educational research is not found in the same way in the sciences where it would be unthinkable that, for example, the mass spectrometry group would become adept at electro fluorescent spectroscopy or that theoretical physicists would do any required laboratory methods.

The issues raised in the chapters of the Handbook are germane to the practice of educational research wherever it is undertaken and, in the spirit of bricolage, complementary methods are explored that have the potential to add value to ongoing investigations as well as to serve as an aid to planning research. Furthermore, the issues addressed in the Handbook can comprise a critical framework for review of research and the associated claims; including policies and practices that truncate the agency of scholars in the name of higher standards. Not the least of these is the regression toward prescribed standards for educational research – standards that embrace an oversimplified grasp of the natural sciences and adherence to positivism and causal relationships between over-reduced social systems defined in terms of variables.

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2. THE MUCH EXAGGERATED DEATH OF POSITIVISM

Over the past three decades all educational researchers know that there has been great controversy around the nature of knowledge production and research as well as the politics of knowledge. One of the common themes of this debate over knowledge involves the assertion that positivism is dead, a discredited epistemology that has been replaced by more contemporary and updated philosophies of research. The main thesis of this essay is that such an assumption is misleading and can be quite dangerous in supporting modes of research that provide distorted pictures of the educational world, promote particular values and worldviews, and often harm individuals who suffer marginalized status around diverse axes of power – e.g., race, class, gender, sexuality, religion, relation to colonialism, etc. A central dimension of our argument is that many of the tenets of positivism are so embedded within Western culture, academia, and the world of education in particular that they are often invisible to researchers and those who consume their research. Various points in this debate have been published in many journals and books on numerous occasions. Thus, we will attempt to address the issue in the context of “where we are now” – in the Zeitgeist and social context of the contemporary era.

It is not unimportant that, for at least a decade we have witnessed in North America a long brewing regressive rejection of progressive values and are operating in the midst of a neo-conservative, militaristic, socio-political fog. What we often refer to as Western reason has not served us well in relation to a variety of issues including our geo-political strategies, environmental policies, economic frameworks that transform human beings from interconnected community members to “fiscal entities,” and test-driven educational reforms that standardize pedagogy and curriculum in ways that deprofessionalize teaching and exclude diverse knowledges that might challenge the status quo. We have often argued that the epistemology that supports such a dehumanizing and oppressive form of reason is a contemporary form of positivism. This “undead” positivism never operates in the name of positivism, and like a zombie walks the socio-political and educational landscape shaping the way we think, what we see in the world, and, of course, how

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we produce knowledge. A central part of this crypto-positivism is adherence to a scientific method derived from the natural sciences and deemed necessary for a rigorous social science. Ironically, even though many social scientists embrace scientism, today’s scientists and philosophers of science do not endorse the dated and misconstrued methods of science that the social sciences have appropriated. That many scientists have moved on is evident in the following excerpt from an Op-Ed piece written by Paul Davies (2007) in the New York Times:

A second reason that the laws of physics have now been brought within the scope of scientific inquiry is the realization that what we long regarded as absolute and universal laws might not be truly fundamental at all, but more like local bylaws. They could vary from place to place on a mega-cosmic scale. A God’s-eye view might reveal a vast patchwork quilt of universes, each with its own distinctive set of bylaws. In this “multiverse,” life will arise only in those patches with bio-friendly bylaws, so it is no surprise that we find ourselves in a Goldilocks universe — one that is just right for life. We have selected it by our very existence. (¶8)

Within the philosophy literature and in the academic lifeworld there is ample evidence of many of the tenets of positivism being applied with and without conscious awareness. Larry Laudan (1996) noted that “… what has doomed postpositivism to amount to little more than a hiccup in the history of epistemology is the fact that it has carried to their natural conclusion several tendencies indigenous to positivism itself – tendencies that, once one sees their full spelling out, turn out to be wholly self-defeating” (p. 6).

In this contemporary Zeitgeist, scholars who embrace this unnamed, crypto-positivism and the damage it supports often garner praise as rigorous scholars. Those who “call out” the existence of the contemporary version of positivism are sometimes accused of name-calling, promoting a straw man [sic] argument (as something that is dead, positivism is invoked for unspecified but nefarious motives), and even embracing a form of paranoia. Indeed, the discussion of positivism, the culture of positivism, and its impact on contemporary educational research takes place on an epistemological minefield. How we might approach such an explosive topic in a way that engages dialogue and not polarization is a difficult and perplexing matter. For what we are discussing are ways of seeing the world that are often times profoundly in opposition to one another. As a cultural practice as well as a formal logic of inquiry, positivism and the debate surrounding it takes on emotional/affective dimensions that can lead to great anger. Many of us have served on search committees, for example, where differences around epistemological assumptions became overtly contentious and profoundly hurtful to young, unprotected faculty caught in the maelstrom. At many educational conferences proponents of dissimilar epistemological perspectives have become virtually segregated, as scholars avoid the conflicts generated by such differences.
DEFINING POSITIVISM: DESCRIBING THE UNDEAD

In the 1820s Auguste Comte endorsed scientific reasoning as a method of progressive discovery and accumulation of knowledge leading to a general law for all social science. There was confidence that the employment of a scientific method utilizing induction and deduction would produce generalizable laws for social science. There was even an effort to identify laws to unify social and natural sciences. The emergence of Comtean positivism can be understood in terms of the history of philosophical thought, including the works of Plato, Socrates, Galileo, Descartes, and the spread of democracy, acceptance of reasoned argument as a resource for deciding what was, what is, and what can be, and the Renaissance. It was assumed that the natural and social worlds could be understood and improved by using reason and systematic observation; that is, the use of scientific reasoning could enhance social progress and the human condition by emulating the successes of science and scientists from Galileo onwards. Observing, experimenting, and predicting were among the processes thought to constitute a scientific method that would lead to an understanding of social life in terms of causal, invariable, and universal laws and the interrelations among them. Using positivism involved posing salient research questions, identifying important variables, obtaining measures for participants on all variables, and analyzing data to produce causal relationships between variables. Empiricism was positivism’s backbone as it evolved and thrived.

At the turn of the twentieth century many leading philosophers and educators undertook research in the social sciences using a variety of empiricist epistemologies, including logical positivism, behaviorism, instrumentalism and pragmatism. The development of these theories was no doubt interdependent as scholars of the time worked together and interacted face-to-face and through publications and participation in professional meetings. For example, at the beginning of the century John Broadus Watson went to the University of Chicago to study with John Dewey. Apparently he did not fully understand Dewey and sought advisors in psychology and physiology. Watson’s development of behaviorism was consistent with John Locke’s empiricism and the collective influence of two physiologists Jacques Loeb and Henry Donaldson, James Angell (psychologist), and Dewey (philosopher). Based on footnotes in Watson’s 1913 paper on behaviorism there is no doubt that he engaged in debate over salient issues with prominent scholars such as Edward Thorndike and others. Even though behaviorism was developed mainly within psychology and in the United States, other empiricist theories emerged at the same time and no doubt scholars of this epoch learned from one another by participating in face-to-face interactions and through the published literature, conference presentations, and ripple effects associated with “word of mouth.”

Many of the tenets of empiricism are consistent with scientism, a position that the methods of science can and should be applied in the social sciences to obtain social truths. These schemas are not necessarily used consciously and serve as an ideology that saturates professional practices in many facets of education. Alfred
Schutz (1964) critiqued the assumptions of logical empiricism and theories that invoke scientism, noting that:

all forms of naturalism and logical empiricism simply take for granted this social reality, which is the proper object of the social sciences. Intersubjectivity, interaction, intercommunication, and language are simply presupposed as the unclarified foundation of these theories. They assume, as it were, that the social scientist has already solved his fundamental problem, before the scientific inquiry starts. (p. 53)

During the twentieth century positivism was a dominant philosophy used to make sense of natural and social science. Many scholars made sense of their work using the tenets of empiricism and derivative philosophies, such as positivism, behaviorism, pragmatism and instrumentalism. Pragmatists and instrumentalists, such as Charles Sanders Peirce, William James and Dewey employed some of the tenets of Comtean positivism during an epoch (e.g., Laudan 1996) when logical positivism, developed within the Vienna Circle, endeavored to “express all true statements about the world in a single scientific language” (Bronowski 1974, p. 627). Logical positivism, which is a form of empiricism, embraced verifiability, a premise that something is meaningful if and only if it is verifiable empirically. Concepts of knowledge are wholly or partly based on experience through the senses and introspection.

Despite its remarkable success, logical positivism had some formidable opponents. For example, Jacob Bronowski noted that Alfred Tarski successfully refuted the master narrative idea and Karl Popper insisted in his philosophy and life “that there is no final sanction and authority for knowledge, even in science; that only that is knowledge which is free to change and grow; and that a condition for its growth is the challenge by independent minds” (p. 627). Bronowski continued “there is no model in the mind of God towards which knowledge moves, and yet it moves from lower to higher forms by a process of natural selection which discards the errors, and step by step elevates those mutations that fit the world” (p. 627).

Early in the twentieth century Watson launched behaviorism (Watson 1913), which greatly impacted both psychology and education, especially in the United States. Because behaviorism and logical positivism are forms of empiricism they share tenets and are often confused. From a behaviorist perspective, psychology is an objective experimental branch of natural science with a theoretical goal of predicting and controlling behavior. There is almost a preoccupation with method as a means of replicating results, and thereby identifying reproducible outcomes.

The sources of behavior are external, belonging to the environment. A defining characteristic of behaviorism is a rejection of introspection and consciousness. If mental terms or concepts are used they are to be translated into behavioral concepts. Causal regularities, laws and functional relations that govern the formation of associations are identified through experimentation in order to predict how behavior changes and the environment changes. Because different forms of behaviorism developed at about the same time as logical positivism was being
honed and other forms of empiricism were developing, there is evidence of cross-
fertilization between different theories, with shared tenets as well as differences.

Lawrence Stenhouse, a British scholar, was greatly concerned that behaviorism
was an ideology that saturated school curricula of the 1960s and, as such, it was
essential for teachers to be researchers in their own classrooms in order to identify
oppression of students due to an ideology of empiricism. His stance launched the
teacher as researcher movement in England and drew attention to the potential
danger of the ideology of behaviorism as a source of hegemony.

It is now more than twenty years since Denis Phillips explored the extent to
which positivism was dead (Phillips 1983). It is apparent from Phillips’ analyses
that there is confusion about what positivism is, which theorists are aligned with
positivism, and the ways in which positivism evolved during its reign as the gold
standard framework for natural and then social science. Salient in Phillips (2005)
and Laudan (1996) is that many tenets of Comtean and logical positivism pervaded
thinking from the early nineteenth century onwards. This is vividly illustrated with
eamples depicting how scholars who attacked positivism, such as Thomas Kuhn,
Paul Feyerabend and Willard Van Orman Quine, adopted tenets of positivism
while arguing against positivism.

Even today Plato’s “clear sky of eternal ideas” (Cooper 1997) are elevated to a
significant extent over other ways of knowing, especially when it comes to
considerations about the purposes of research. As Hannah Arendt argued in the
Human Condition, a pervasive tendency to privilege theoretical ways of knowing
over all other ways of knowing is historically constituted (Arendt 1958).
Accordingly, journal editors, peer reviewers, and research project officers from
funding agencies might judge research on the premise that the production of
theoretical knowledge is the only acceptable goal, or at least the most important
goal.

Comtean positivism embraced the use of the scientific method as a means to
produce social truths. The tenets of the scientific method now serve in many
quarters as referents used to judge the value of research in social science. Similarly,
as different genres of empiricism differentiated during the early twentieth century,
a common core was accepted, virtually without debate and served as a mainstream
ideology; an unquestioned set of referents underpinning research in the social
sciences. Because the ongoing and widespread use of these tenets is usually
unexamined we refer to them collectively as crypto-positivism, acknowledging that
the tenets we identify below apply not only to logical positivists, but also to other
branches of empiricism. We opt for crypto-positivism because many of the tenets
appear to have arisen in Comtean positivism and the milieu of European thought in
the early to mid nineteenth century. Despite the efforts of heavyweights such as
Karl Popper to kill logical positivism, and dramatic counter movements in
sociology, cultural studies and cultural anthropology, the center of mass that
represents informed public opinion remains saturated by an ideology of crypto-
positivism.

When scholars including Theodor Adorno (1973) and Max Horkheimer (1974)
from the Frankfurt School of Critical Theory examined these dimensions of
empiricism and positivism, they understood the ways that such objectivist epistemological orientations dismissed the value of historically contextualizing knowledge while concurrently problematizing the epistemological, ontological, and ideological assumptions embedded within it. In the critical theoretical analysis of this issue, knowledge producers in these aforementioned objectivist traditions simply do not possess the ability to discern the nature and impact of their own philosophical and socio-political assumptions on the knowledge they produced. Thus, to the scholars of the Frankfurt School the objectivist notion of neutral knowledge produced by the scientific method served to limit scholarly actions that would allow researchers to better understand the way they had been influenced by the dominant norms and values of their culture.

When such norms and values go undetected, they exert a profound influence on what passes as objective and rigorous knowledge and what does not. And, importantly, such “validated knowledge” operates insidiously to prop up the status quo. Henry Giroux (1997), picking up where Adorno and Horkheimer left off, argues that these objectivist forms of research and knowledge work have produced a “culture of positivism” that accounts for a range of reductionistic and dominant ideology-based epistemological practices that continue to operate in contemporary research. It is fascinating how this culture of positivism with its scientistic kinship ties to behaviorism, logical empiricism, and instrumentalism has been able to deny its own existence while concurrently exerting a powerful influence.

The epistemology of positivism identifies knowledge as worthwhile to the degree that it describes objective information that corresponds to or reflects the world. Joe Kincheloe (2008) has used the acronym FIDUROD to specify the mechanistic and reductionistic dynamics that shape contemporary manifestations of this culture of positivism. The following six epistemological (with ontological dimensions) assumptions are found in positivistic research.

**Formal** – produced by rigid adherence to a particular research methodology that never changes no matter what new circumstances are encountered, no matter how much these new circumstances might lend themselves to rethinking the mode of inquiry one is using. This methodology can be taught to students of research in a step-by-step process.

**Intractable** – grounded on the ontological assumption that the world is basically an inert, static entity. What we find today about, say, childhood will be true in all circumstances and will remain true indefinitely. Here childhood (in the same manner as limestone or the chemical composition of salt) is assumed to be a fixed, never changing concept. Of course, such an epistemological stance doesn’t account for the ever-changing nature of the world and the observers who study it. The notion that human beings and social, cultural, political, and educational phenomena are always in process, changing in new historical times and circumstances is not important in this positivistic context.

**Decontextualized** – constructed by researchers who have removed a phenomenon from the diverse contexts of which it is a part and that grant it
meaning. Without these contexts—e.g., the lived world of a student who takes an I.Q. test—the knowledge produced is distorted as it gives a misleading partial picture. The I.Q. tested student may come from a home where her parents were not first English language speakers, characterized by dire poverty where most energies are directed toward survival not school performance. Might these contextual factors make a difference in the girl’s I.Q. test scores? Do they have anything to do with some genetic, inherited notion of intelligence? Studies of any type from the quantitative to the qualitative and everything in between can be decontextualized in the same way.

Universalistic—what inquirers discover when strictly following the correct epistemology and the research methods it supports applies to all domains of the world and the universe. In pre-Einsteinian physics, for example, gravity was assumed to remain constant in all domains of the cosmos. Einstein’s work in the General Theory of Relativity undermines the universality of gravity as it delineates special circumstances where Sir Issac Newton’s notion of gravity does not work as he postulated—black holes, for example, where nothing can escape the depression in space caused by the concentrated mass of the black hole. There are countless examples one could provide in the social, psychological, and educational sciences to illustrate this same concept. A central dimension here is the decontextualization that comes from colonialism—both traditionally and in its new, reconfigured format—that decontextualizes knowledge produced in colonial centers of power by dominant power blocs that dismiss and degrade the knowledges and well being of marginalized, colonized groups.

Reductionistic—focusing on those dynamics that lend themselves most easily to measurement, research/knowledge produced in this context fails to account for the multitude of factors that shape the nature of knowledge produced: the belief and value structure of the researcher, the structural forces that create particular ideological and cultural climates in which the research process operates, the discursive practices of the research community involved in the process, the perspective of numerous individuals from other cultural settings about the phenomenon in question, to name only a few. Such reductionism provides a parochial, limited, and deceptive body of knowledge. In the name of objectivity and neutrality an ethnocentric, patriarchal, or class biased mode of research can be produced.

One Dimensional—shaped by the belief that there is one true reality that can be discovered and completely described by following the correct research methods. Such an epistemological orientation tacitly posits that the Western waking dimension of human consciousness is the only state worthy of study and use in our daily existence. Thus, the reality that Westerners have depicted via their knowledge production that follows the step-by-step methodology of positivism is a certified reflection of the way the world really is. Anyone that
THE DANGER OF MONOLOGICAL WAYS OF SEEING THE EDUCATIONAL WORLD: THE POWER OF HIDDEN POSITIVISM

As these insidious modes of positivism creep into research practices, they work to promote a belief that what we perceive about the world in our unexamined first glance is simply “what is.” It is profoundly difficult to escape this culturally conditioned way of seeing that simply takes for granted the veracity of the Western gaze as well as dominant sociocultural ways of being in the world. All epistemologies, all logics of inquiry are grounded upon a particular view of the world whether the researcher is conscious of it or not. One of the main reasons that we are so interested in the positivist zombie in contemporary research is that it integrates these socially and culturally inscribed worldviews into knowledge production in often an undetected manner. Knowledge is a far more slippery and complex concept than researchers traditionally assume. In its complexity countless assumptions about the “proper” way of producing it slip by undetected in the research process, in the attempt to validate knowledge, and in situations where we teach individuals to be researchers.

This slipperiness of knowledge is well illustrated by positivist-based objectivist claims to the separation of the knower and the known, specifically the researcher and the researched. In this transcendent space the researcher stands outside of history and culture producing uncomplicated and validated knowledge that is generalizable to different places and different times. Teachers often tell educational researchers that their knowledge is more slippery than they think, for the validated “best practices” developed in research studies A and B don’t have much significance for Ms. Soto teaching on the Navajo Reservation in Arizona. This separation of knower and known, this objective stance of the inquirer tacitly gives researchers the erroneous impression that they can produce neutral and value-free information about a pedagogical phenomenon (e.g., Faulconer and Williams 1985). Not only educational professionals but also people in Western culture and around the world have been misled by the universal truth claims of crypto-positivist research. The claims don’t match what we actually get with such knowledge.

This mismatch of claim and what we get is complicated and profoundly important in the thesis of this essay. We both believe that there should be diversity in the ways that knowledge is produced and greater toleration and respect for multiple methodologies and designs. At the same time, we assert that researchers producing any form of knowledge should understand and make it clear to their audiences the nature of the knowledge they are producing. This is where the ghost of positivism plays such a problematic role. As it hovers over and haunts contemporary knowledge work, positivism induces researchers to discount the value of examining the nature of the knowledge one produces and the forces at work in shaping the inquiry process. As scholars of the past three or four decades have explored these dynamics, they have produced a wide variety of insights into...
the specific ways – ways frequently hidden in the folds of power and mundane
cultural routine – such factors operate. Simply, we have learned a great deal about
how values influence researchers and their research. This not only concerns the
production of viable research (Elmesky and Tobin 2005), but also the ways that our
knowledge contributes to enhancing human agency in the face of the growing
strength of the oppressive practices of capital and other forms of oppression
(Nelson 2000).

THE POWER OF EUROCENTRISM: POSITIVISM AS A PART OF A LARGER
OPPRESSIVE MATRIX

From the perspective of many Islamic scholars (e.g., Said 1979) (and of course
many other scholars from around the world) the power of Europe and its scientific
knowledge was won at the expense of the “non-Western other.” In this tradition
scholars operating under the flag of positivist objectivity have proclaimed the
inferiority of Muslims and many other Asians, Africans, Latin Americans, the
progeny of such peoples now living in the West, and indigenous peoples from all
over the world. To those who would argue that this is a practice of a previous
historical era, we would direct them to recent research on Islamic and Latin
American peoples (e.g., Huntington 2004) and Africans with their average I.Q. of
75 (Herrnstein and Murray 1994). It is fascinating in the context to study the
history of Western produced positivist knowledges in education and a variety of
fields as compared to the indigenous knowledges constructed by people with an
intimate knowledge of a particular locale.

Whether one is reading about social and educational research and practices in
Maori scholar Linda T. Smith’s (1999) Decolonizing methodologies: Research and
indigenous peoples, the grassroots knowledge of African farmers in Guy Gran’s
(1986) Beyond African famines: Whose knowledge matters?, or the genius of
indigenous Andean peoples in South America in Frederique Apffel-Marglin’s
(1995) Development or decolonialization in the Andes?, analysts begin to
understand the limits of Western positivistic knowledge as they look at
comparisons of the efficacy of Western knowledges vis-à-vis indigenous
knowledges in these multicultural contexts. In these same contexts scholars begin
to understand the role of Western produced positivist knowledges in oppression, as
diverse “others” are positioned as inferiors in positivist knowledge systems.
Controlled by Western academic interests individuals from poor backgrounds
around the world are defined by Western research. Too often such oppressed
peoples play no role in the defining of themselves (Weiler 2004). Thus, positivism
is inseparable from the belief in the superiority of Western ways of seeing and
being – with positivism “we” found the correct method to discern the truth about
the world.

We can see this quite clearly in many contemporary Western studies of
indigenous knowledge. Indeed, the historical process of Europeanization with its
colonial perspectives toward indigeneity continues to operate despite both
insightful and misguided attempts to thwart it. In this context an ethnocentric
Western positivist-oriented science claims a value for indigenous ways of seeing as an “ethnosience.” Western scientists maintain that much can be learned from a number of ethnosciences including ethnobotany, ethnopharmacology, ethnomedicine, ethnocosmology, and ethnoastronomy. The concept discursively situates indigenous knowledge systems as ways of knowing that are culturally grounded, simultaneously representing Western science as “not culturally grounded” – reflecting the positivist framework it is transcultural and universal. Thus, in the process of ascribing worth to indigenous knowledge, such analysis implicitly relegates it to a lower order of knowledge production. Also, to speak of indigenous knowledge systems in Western terms such as botany, pharmacology, medicine, etc., is to inadvertently fragment knowledge systems in ways that subvert the holism of indigenous ways of understanding the world (Hess 1995).

In this Western positivistic gaze, indigenous knowledge is tacitly decontextualized, severed of the cultural connections that grant it meaning to its indigenous producers, archived and classified in Western databases, and eventually used in scientific projects that may operate against the interests of indigenous peoples. All of this takes place in the name of Western scientific concessions to the importance of the information generated by local peoples. Arun Agrawal (1995) labels this archival project as *ex situ* conservation – a process that removes it from peoples’ lives. Such indigenous knowledge is always changing in relation to the changing needs of its producers, *ex situ* conservation destroys the dynamic quality of such information. Despite their overt valorization of indigenous knowledge, these Western scientific archivists refuse to accept the worthiness of “raw” indigenous knowledge – upon collection Western scientists insist on testing its validity via Western scientific testing (Grande 2004). As Marcel Viergever (1999) maintains, this archival project and the scientific validation that accompanies it illustrate the positivistic disregard of the need to protect and perpetuate the cultural systems that produce dynamic indigenous knowledge. In this context, Western proclamations of valorization ring hollow, as positivist ethnocentrism exposes itself.

**POSITIVISM, TEMPORALITY, AND COMPLEXITY: TIME HAS COME TODAY**

Arendt (2004) argued that at the moment a so-called universal and eternal truth is brought into the lived world of human beings, it becomes temporal and thus no longer occupies such a lofty transcultural and transhistorical status. This is to contend that once any phenomenon enters into the commerce of human events, it is changed and continues changing as its context(s) and even those who perceive it change. Thus, positivist knowledge about social, psychological, and educational phenomena whether they are researched by statisticians or ethnographers removes such events from their historical and cultural locations. The concept of time is highly problematic in positivist-influenced accounts of socio-educational behavior. In the positivist research context objects under study are taken on faith to be fixed, static, atemporal phenomena. In the course of study these atemporal entities are assumed to exist in cause-effect relationships. Except for the notion of time
implicit in causal ordering (if A caused B then A temporally preceded B), positivist studies remove the influence of the past and the future in the present. Time, as it is experienced in social life (e.g., Bergson 1910), is beyond the theoretical ouvres of positivism, as are the emotions of experience.

Where a school stands in history, we maintain, is profoundly important in understanding what is happening there today. Where political and educational leaders think schools should be going in the future exerts a major impact on what researchers are viewing in their study of, say, classroom practices. Positivist atemporality in research produces a view of the school in question that is significantly different from one where such dynamics of time are taken into account. In this ontological and epistemological context we draw upon the work of both Gilles Deleuze (1994) and Alfred North Whitehead (1929/1978). Both Deleuze and Whitehead promoted a temporal ontology maintaining that no entity comes into being out of nothing. Even though the phenomenon emerges from preexisting realities, it surfaces in a novel manner involving the uniqueness of the relationship it develops with what came before and what will come after it. Whitehead contended that single incidents of becoming are “occasions.”

These occasions are connected in space and time and when seen in such interrelationships become a nexus. From these initial understandings we move into the process-orientation of Whitehead’s ontology, as the world is structured by a series of events that at the macro-level become a process. Deleuze (1993) maintains that Whitehead’s insight in this context represents a radical break from the way we typically look at temporality in Western thought. As the positivist impulse moved researchers to view the single atemporal thing-in-itself, Whitehead’s process-based lenses viewed events in spatio-temporal relationships. The world itself and the world of research are no longer the same with these realizations. The cosmos in which we operate is not made of intractable entities but ever-evolving events; verbs begin to gain as much importance as positivistic nouns; processes begin to trump substances.

These are not arcane philosophical musings – these ontological/epistemological insights profoundly shape how we perceive the world, ourselves, our relation to the world, education, and the production of knowledge. We are all in the process of becoming – everything we study is in the process of becoming something new and unique. Every thing-in-itself designated by positivism is a temporal event viewed by reductionist researchers as a static phenomenon. A child, a teacher, a school, a curriculum, what is deemed essential knowledge are always event-like in that they keep changing in relationship with unexpected dimensions of physical, social, political, and other dimensions of the world. Events or things-in-relationship are the definitive constituents of the world around us. Such a realization forces us to understand the way positivism undermines an understanding of this level of the socio-educational world’s complexity, its political implications, the value dynamics involved in the process of studying it. The epistemologies, ontologies, and multiple research methodologies we embrace understand that educational phenomena are situated in environments constructed by their temporal interactions with the other dynamics in the web of reality (see Tobin and Kincheloe 2006).
We carefully observe the ways that researchers are taught in quantitative and qualitative methods courses. Too often, the issues we are dealing with are rarely discussed, as some professors of research focus on providing “practical” step-by-step methods of “how to do research” complete with didactic guidance on how to follow the pre-given steps correctly. In such contexts, the cultivation of the sociological imagination of the student-researcher, the appreciation of the complexity of interpretive process, and the understanding of epistemological, ontological, and ideological assumptions implicit in particular research designs are deemed not simply irrelevant but as impediments to learning to become a rigorous researcher. Often, when we have talked to students (and colleagues who once were students) who raised such questions in positivist-inscribed research methods classes, they tell us about the myriad ways they have been punished for raising such “irrelevant” issues.

One of these irrelevant issues involves the nature of objectivity and the role of the self in the research process. Western researchers and those they have influenced around the world of all methodological stripes have had difficulty appreciating their own temporal location and their involvement in cultural, economic, political, and social matrixes often not apparent to the naked eye. Historians, sociologists, and philosophers of science from Western societies, critical/feminist scholars, as well as non-Western analysts have produced a body of work over the last few decades revealing how much “objective” science is tacitly linked to the social forces and power dynamics of its Zeitgeist (see Sandra Harding 1998 for an expansion of this theme). An educational science that eschews ways of seeing that understand these dynamics and then charges more critical and complex research approaches with setting up a bogeyman of positivist objectivism is operating as a hegemonic force that supports an oppressive status quo. In this positivist context, the only alternatives for educational researchers that exist are either a hard objective stance or a soft subjective position that involves no real empirical data and produces pseudo-knowledges emerging from the imagination of the researcher.

Responding to such a false dichotomy, Sandra Harding (2004) argues that – if we want to use such a term as objectivity – understanding the diverse forces that shape researchers and the knowledge they produce actually constitutes a stronger form of objectivity than the decontextualized positivistic notion. Knowing such factors, she argues, alerts us to the various ways that knowledge is unconsciously distorted and fitted to the interests of dominant power. Such a claim is an anathema to the impulses of positivism, for “the social” by definition exists outside the boundaries of objective science. Indeed, in a positivist framework the mind is separate from both the physical and social world of phenomena, and anytime this boundary is crossed in the research process the objectivity of the inquiry is contaminated. An uncontaminated process in this context produces undistorted mental pictures that correspond to actual reality (Allen 2000). Objectivist research design exists to make sure that this mimetic process occurs. Hopefully, despite the resurgence of crypto-positivist methodologies, many educational researchers...
understand the problematic nature of such epistemological, ontological, and cognitive assumptions.

The idea that there exists in the atemporal ether a true meaning of a phenomenon is baffling, as we observe an ever changing and interacting educational world in process. The meaning of an educational event is always in the process of negotiation among divergent researchers, emic and etic observers, and various other parties. Such a meaning is never completely open or determined, as diverse constraints shape differing interpretations. Thus, the meanings of educational policies or classroom practices never simply speak for themselves. The sociocultural and ideological frameworks researchers bring to the process always influence the meanings different individuals make. In a crypto-positivist world the message is transmitted that such hermeneutic dynamics are impediments to the “real business” of research: to represent the world “as it is.”

TRAVERSING CRYPTO-POSITIVISM’S TRANSCULTURAL AND TRANSHISTORICAL NETHER DOMAIN

Positivist researchers and their contemporary progeny-in-denial lost sight of the epistemological and ontological processes connecting the knower and the known. The knower was disembodied and like a deprofessionalized teacher in a contemporary corporatized school was given a script of steps to follow regardless of context. Thus, in some ways positivist inscribed research with its step-by-step methods are deskilling to researchers, as they induce them to ignore the complex analyses of the various contexts and processes of which they themselves and the phenomena and individuals they study are a part. This relationship between the subjectivity of the author and the research produced is an issue that cannot be ignored. Whenever it is disregarded the result is a caricature of the claims of positivist objectivity that serves to suppress the sociocultural, ideological, and personal issues that help construct the outcomes of research (Thayer-Bacon 2003).

Thus, neo-positivist educational research continues the objectivist tradition of viewing everything from a transcultural, transhistorical nowhere. When we have attempted to work with neo-positivist researchers, our argument that it is important to situate ourselves ideologically, culturally, pedagogically, epistemologically, and ontologically so our readers will know from what locations we are entering the conversation has not been met with great enthusiasm. “Why in the world would we need to do that?” such researchers ask. Since they often believe that they are presenting the objective truth from the privileged position of a spatial and temporal nowhere, such disclosure seems rather fatuous. Thus, the question remains: what are we to do with the fact that our selfhood is deeply embedded in the research process? With this question at the front of our consciousness in the complex ontology and epistemology advocated here, we begin to realize that the quality, the viability of the information we produce does not depend on an objective correspondence to the “objective reality” “out there.”

Instead, it has to do with numerous understandings of the ways knowledge production operates, the nature of the constructed self, the role of socio-political
and epistemological and ontological frameworks in which we all operate, and the relationship between these dynamics and the spatio-temporal processes that we are researching. Understanding, describing, and even critiquing the existing state of affairs does not mean we must retreat to the positivist land of nowhere. We can understand, describe, and critique but always from a specific time and location. Because of the limitations of these spatial and temporal dynamics, we must be open and humble about our inadequacies as producers of knowledge (e.g., Clark 2001). While we believe that such a task is profoundly rigorous and takes much study and practice to do well, we do not believe that it can be reduced to a simple step-by-step, connect-the-dots procedure. Thus, unlike the crypto-positivists we are calling for a new rigor in educational research that, we assert, demands more of those who claim the mantle of scholar.

In this rigorous and complex context the self-knowledge we seek as researchers does not suggest some narcissistic turn inward, but a part of the larger effort to gain deeper insight into the spatial and temporal process of knowledge production. Neither is it a solipsistic retreat from engagement in the world but an effort to connect the knower to the world in the process of understanding the outcomes of such relationships. Such relationships, of course, involve values and normative dynamics. From a political economic standpoint they are part of a larger politics of knowledge that is so vital in a time when knowledge work, knowledge workers, universities, and institutes in which educational research is conducted are for sale to the highest corporate bidder (Steinberg and Kincheloe 2006). Indeed, it is an effort to construct a critical, independent, democratic mode of engaging in research that understands the way dominant power constantly operates to overtly and covertly shape the outcomes of educational research.

POSITIVISM PLACE: THE WORLD THAT POWER FORGOT

Crypto-positivism is a pervasive ideology that permeates many educational practices that connect with research. For example, peer review of manuscripts submitted for publication, proposals submitted for funding or for presentation at annual meetings of organizations such as AERA, and the creation of “what works” databases are examples of fields in which tenets of crypto-positivism are frequently used to justify decisions. Also, the reading of educational research may be filtered through the crypto-positivistic lenses. Phillips (2005, p. 584) noted that policy researchers appear to be guided by some of the tenets of positivism.

Educational policies are, logically, causal recipes – ‘if it is desired to produce effect or result R, then introduce treatment or programme P’ – but in order for an educational agency to be justified in imposing this policy, strong or reliable evidence must be available that P will reliably produce result R. This logic is what grounds the powerful movement in both North America and the UK that marches under the banner of ‘evidence based policy and practice.’

Based on our educational experiences, which cover the 1960s through the present, we have myriad examples of crypto-positivism shaping educational practices. The
following example is provided as one illustration. Most institutions have an Institutional Review Board (IRB) that consists of qualified peers to review research with human subjects. The Belmont Report (1979), which addresses three general principles: respect, beneficence, and justice, guide the responsibilities of the IRB. Proposals to the IRB should show clearly how the research design respects human participants by maximizing their autonomy to make choices about their participation, that there is a balance favoring the benefits associated with being involved in research compared to the harms from being involved, and that the practices involved in doing research and distributing the benefits and harms are equitable.

A proposal to the IRB should address ways in which human subjects will be recruited to participate in a study, what they will be told as part of an informed consent process, how they can exercise autonomy during the conduct of a study, and benefits and harms associated with being involved, withdrawing, and staying involved. Details should be provided on the scope of the study, defining the boundaries of what the study is about and being precise about where the study will take place and its duration. Assurances also should be given about anonymity and confidentiality and the ways in which data will be stored, used, made available to others, and protected from tampering. If the data are to become part of a database this should be made clear and if data will be destroyed at a particular time the dates should be specified.

Recently a doctoral candidate proposed an ethnography of the emotions experienced within an upper class family when a child from the family is categorized as learning disabled. The proposal attracted a great deal of attention from the IRB and during a period of several months the graduate student was required to answer aggressive questions that threatened to disallow the research based on numerous premises, many of which embraced tenets that were also a part of positivism and, more generally, empiricism. The following paragraph is an example of numerous issues identified by the IRB, to which the graduate student was required to respond.

Because the PI is involved with only one family he needs to reduce the claims he makes for the research’s potential contribution to generalizable knowledge, both in his application and in the consent forms. His involvement with one family is not research in the sense of “a systematic investigation (the gathering and analysis of information) designed to develop or contribute to generalizable knowledge.” Rather, it more closely resembles a biographical study, which contributes to understanding through in-depth study at the expense of generalizability. Ultimately the PI should remove any language implying that we will be able to conclude anything definitive about “upper class parents’ experiences.” At most the study might suggest directions for further research with people fitting these criteria.

The IRB’s argument is consistent with many of the tenets of empiricism, defining research as empirical, having the goal of producing generalizable knowledge. Generalizability is focused on sampling a sufficient number of cases, researching
the sample and generalizing to a population. Intensive studies are regarded as producing in depth understandings, which are presumed to be not generalizable and hence the activity is not considered to be research. The IRB then took an astonishing step in requiring the graduate student to remove any language about benefits implied that anything definitive could be learned from this activity, which was regarded as less than research.

One of the key aspects of contemporary crypto-positivism involves the continuation of this erasure of power as part of the research process. Simply put, the domains of epistemology and knowledge production cannot be removed from the larger politics of knowledge. Multiple forms of power help construct the knowledge production process on many different levels, and it is in such a context that we view external political influences in a neo-colonialistic, corporate-driven, globalized imperial world. In distinction from many analyses of dominant power’s influence on research, we contend that such external influences of power – e.g., institutes that support research projects that legitimate corporate influences in school and society – make up only one dimension of power’s influence on educational inquiry. Power also affects research in an internal manner as well, as it helps shape assumptions concerning the epistemology, methodologies, and designs of positivist inquiry. In this internal process dominant power operates like a quantum force, in that its exact position is always obscure and difficult to find in one specific province of scientific research.

As with so many other dimensions of the socio-political world, power operates as an unseen network, working best when it is hidden from those people and practices it affects. For example, when issues of the spatio-temporal location of the researcher or the multiple historical and sociocultural contexts in which an educational phenomenon are dismissed as dynamics that contaminate the research act, dominant power casts its spell. The power of the crypto-positivist ideology is not perceived as oppressive and its role in quashing research is not acknowledged; instead, the tenets of crypto-positivism are regarded as forces for objectivity, protecting the sanctity of the research process from politicized poison. In its underground social mycelia, dominant power positions those of us who would ask questions of the objective location of positivist researchers and research designs as dangerous ideologues who no longer believe in empirical “truth.” We are divisive agents who are guilty of name-calling and incendiary rhetoric. In this conceptual framework as long as knowledge producers support dominant power – no matter how much human suffering it may help perpetuate – they are viewed as reasonable and neutral moderates. Challengers to such power are irrational and disruptive “episto-paths.”

In this hidden positivist place it is essential that contemporary educational researchers listen carefully to diverse voices – from other conceptual frameworks and other sociocultural settings. Often because of their location in social space and associated standpoints, those who are different from mainstream researchers can distinguish the tacit epistemologies and ontologies that go unnoticed by those who employ them. Individuals coming from diverse locations can provide profound insights into the way these tacit beliefs about knowledge and being shape the
outcomes of crypto-positivist research and the actions they engender. Crypto-positivism is an insidious, harmful force that at once denies its own existence while vilifying those who point it out. We have not reached the “end of epistemology,” for there is much analysis, conversation, and debate that must take place around these issues in the coming years.

REFERENCES
KINCHELOE AND TOBIN