Abstract

From a critical pedagogy standpoint, we examined a bilingual (American Sign Language [ASL] and English) video-publication titled “Seizing Academic Power.” The video-publication explores interactions of power and knowledge in deaf education and research and proposes tools to subvert ableism and deficit ideologies within them. By centralizing multiple visuospatial modalities, the video-publication's medium is also its message. Qualitative data were produced and analyzed via structured coding cycles then interpreted through two theoretical frameworks focused on culture and aesthetics in critical pedagogy. Our analysis highlights conflicts at the nexus of ontology, epistemology, axiology, and methodology of deaf education and research. Findings reveal how deaf students gain and develop critical consciousness within the classroom, depending on their teachers’ conceptions of marginalized cultures, use of signed languages, and multimodal knowledge, all of which modulate power and ethics in deaf pedagogy and research about it. Our study concludes with implications for ASL video-publications for teacher-training in deaf higher education and in research production and dissemination.
Introduction

In this article, we explore a multimodal teaching artifact produced by Harris and Loeffler (2015) titled, “Seizing Academic Power: Creating Deaf Counternarratives” intended to confront top-down power and antideaf biases. To analyze it, we used two theoretical frameworks that focus on culturally-sustaining pedagogy (Gay, 2002; Ladson-Billings, 1995b; Paris, 2012) and educational aesthetics (Cherryholmes, 1999; Eisner, 1994). In the video-publication, Harris argues that deaf scholars and educators must develop deaf-centric tools that exert power from the bottom up in higher education, research, and publication (Sutherland & Rogers, 2014). The medium and message of Harris’ video-publication are powerful; both show how deaf people resist and replace harmful masternarratives and deficit ideologies about deafness. Among the tools of resistance are deaf counternarratives that counteract biased assumptions about deaf students’ educational potential. Throughout, we examine entanglements of knowledge and power in (deaf) pedagogy theory in terms of equipotentiality—equivalence of knowledge forms (Larson, 2014; Rancière, 1991).

The violence of audism characterizes deaf education (Bauman, 2008a). Rather than historicize that conflict, we begin in the present theoretical moment with three critical stances aimed at reconstituting power relations in deaf theory. In sum, they establish the conceptual stage upon which our arguments about Harris’ work is set. First, in disability studies, Komesaroff (2008) and Gabel (2009) advocate dissolving outdated metanarratives of deafness, calling on all educators to critically examine how power shapes pedagogy; without introspection, deaf ways of knowing and being risk extermination (Calton, 2014; Lane, 2008). Second, deaf epistemologies (Paul & Moores, 2010) posits a model of knowledge where deaf people think and learn differently from nondeaf people. While diverse, deaf visuospatial epistemologies are evident in sign languages and Deaf Culture (Bahan, 2008; Young & Temple, 2014). Deaf epistemologies are interdisciplinary and metaparadigmatic, useful for analyzing deaf education and research on multiple levels (Wang, 2010). Finally, Bauman and Murray (2010; 2013; 2014), propose deaf gain theory, partially concerned with shedding the negative connotations of “hearing loss,” and partly on understanding the adaptive benefits conferred on deaf people, resulting from deafness. Deaf gain research aims for:

…a deeper understanding of the human proclivity for adaptation. [Given] sensory loss, we may better appreciate the dynamic and pliable nature of the mind and the human will to communicate and form community [within] the plenitude of human being (p. 247).

Like Bauman and Murray, we reject the idea that deaf education theory is a backwater, a position it’s traditionally consigned to. We posit that deaf theory concerns all contemporary education researchers. Our paper aims to decompose these contemporary theories by linking them to an ethics of knowledge equality (Larson, 2014; Rancière, 1991). While recognizing the

---

1 Ongoing debates affix meaning to ‘deaf’ and “Deaf” differently. We use the lower-case d to denote all ways of being deaf and knowing deafness (Skyer, 2018), but retain upper-case D when quoting or to mark the proper noun, “Deaf Culture.”
immediate, practical demands for deaf pedagogy theory, we assert that theorists of human education should be inclusive to deaf diversity. As we analyze critical deaf pedagogy, we remain interested in how it contributes to ethics in human education; therefore, our research questions demonstrate a simultaneous inward/outward perspective:

- What power relationships exist between a) languages—ASL and textual English—and b) non-language communication modes in academic research about deaf education?
- How can (deaf) pedagogy promote equitable power relations and critical consciousness?

Description of the Video-publication

“Seizing Academic Power” examines how deaf people gain and assert academic power and how power functions in academic and research communities where deafness is the subject. Leveraging two languages and multimodality to convey its message, the video-publication is twenty minutes long with a transcript of 4,000 words. We selected Harris’ work as it situates conflicts of power (ableism, audism) in terms of pedagogical and methodological ethics. Harris’ video-publication offers potential solutions, including the use of ASL video-publications to resist audism. The video-publication and our analysis critique ableism in higher education, particularly conflicts of power like antideaf biases. Harris’ theoretical and methodological tools combat antideaf oppression; we recognize their importance and employ several in our analysis. Together, we show how deaf individuals resist audism in higher education by using practical tools that may be used by others for similar purposes in the wider fight against ableism in the academy. The video-publication has three main sections. Here, we focus on the third. In-depth analyses follow this descriptive summary, which is meant to orient the reader, not exhaust the analysis.

Preface. The video-publication begins with an apology about racial analogies (Harris’ term) included in the first release and her rationale for editing them. Now removed, narratives of Native Americans and other people of color were used to describe injustices done to deaf people. While intended to introduce the terms: masternarrative (compared to colonization) and counternarrative (decolonization), Harris now emphasizes dissimilarities among each oppressive system.

Narratives. Harris analyzes two audist masternarratives about deafness (biomedical biases) described as a common form of antideaf oppression. The first contains a two-panel image by Maureen Klusza, titled: “The Greatest Irony.” On the left, a crying deaf child is depicted with shackled hands. Contrasted on the right is a smiling hearing child signing I Love You in ASL. Once presumed to cause cognitive delays in deaf children, ASL is now, counterintuitively, used as an early intervention for hearing children’s language development (Snoddon, 2014). ASL, once defined as gesture (iconic, non-arbitrary, thus inferior), is no longer seen this way (Petitto, 2014). Harris’ second narrative is symbolized by a photograph of Myklebust’s Psychology of Deafness (1964), wherein deaf people are considered unteachable. Though outdated, Harris contends that it

---

2 The video-publication and transcript were released, edited, and re-released on YouTube. Harris’ production company (ASLized) formerly hosted a version of the full, original, unedited transcript, which was an important source for data collection and analysis. Later, the original transcript was deleted from its online repository and a new edited transcript (following the edited video-publication) appeared. Our reference list includes only the edited versions because we cannot directly cite originals, which no longer exist online. In our article, timestamps refer to the edited video-publication. Transcript quotes are distinctly labeled.
remains disproportionately influential. Harris asserts that critical tools, including deaf counternarratives, can supplant ableist ideologies found in these masternarratives.

**Tools.** Harris claims that ableism denigrates deaf ontologies and epistemologies, then unveils innovative tools to deracinate ableism. “How to Seize Academic Power,” is half of the video-publication’s length. Within it, she amasses tools to benefit the video-publication’s main audience: deaf stakeholders working to subvert oppressive masternarratives in deaf education and research. This segment organizes an array of innovative, **anti-audist tools** in three categories: 1) **Recognize and Resist**: a) **Recognize Masternarratives**; b) **Resist Outsiders’ Theories and Labels**; c) **Recognize Epistemologies**; and d) **Recognize Gatekeeping Techniques**. Next, 2) **Seize and Carve**: a) **Privileging Knowledge and Primacy of Experience**; and b) **Language of Publication and Press**. And finally, 3) **Negotiate**: a) **Ownership and Profit**; b) **In Front and/or Teams**; and c) **Counternarratives**.

Antideaf biases include the fictitious notion that deaf people can and should be “fixed” by oral-aural training regimens or assistive listening technologies. A *carving* metaphor is used to signify the excavation of antideaf biases presently used by powerful interests (e.g. biomedical industries), who exert disproportionate influence on parental decision-making (Mauldin, 2016). Instead, Harris explains, researchers should frame background knowledge and experiences with regard to deaf people and ASL positively. To use the **Negotiate** tool, Deaf Cultural affiliations and ASL skills are assets to deaf research endeavors, thus linking deaf epistemologies, researcher positionality, and deaf gain. Harris reiterates that deaf counternarratives may undo the damage of masternarratives in deaf academic research.

Harris then contrasts citation techniques. In nondeaf research communities, power is attributed to peer-reviewed empirical journal articles, mostly published in English.³ In contrast, deaf scholars often draw on experiential knowledge about deafness gained from interactions within deaf communities. Fewer publications of this type exist and less status is attributed to them. Harris argues for increasing their numbers, visibility, and status. Implicitly referencing the medium of video-publications, Harris argues that deaf research should first be published in sign language, an operation that subverts hearing privilege, where native speakers have the advantage accessing English publications. Next, Harris rejects hierarchical power in research and emphasizes the need for heterarchical teams, where deaf researchers and participants share power equitably to determine ethical conduct and ownership.

Harris argues that all deaf research disciplines are essentially linked in deaf education. She situates power dynamics as operating at the point of intersection where general academic research about deafness intersects with real world decision-making: “Academic research has done a great deal of damage towards our culture, language, and children...particularly [to those] intentionally deprived of accessible language within our current educational system” (19:51-20:02). While we expand these themes later, the deft linkage between multiple research disciplines in education and their combined effects on deaf developmental trajectories is one of Harris’ most compelling arguments. This argument helps us understand the multilayered ethical problems of power and

---

³ Some deaf people’s native language is sign. Reading English publications forces them to learn about themselves in a second, less-accessible language. It is also problematic for deaf people who are not English literate (e.g. in nations where English is not used, or those who are language-deprived). We assert that it is equally troubling to only publish in ASL at the expense of other signed languages, as hundreds of sign languages and dialects exist globally.
knowledge in deaf education (Christensen, 2010). In sum, to gain and assert power, deaf-centric (Sutherland & Rogers, 2014) tools and methods must be employed by stakeholders to subvert ableism in the academy and everyday lives of deaf people.

**Theoretical Frameworks**

We used two theoretical frameworks, each representing our positionalities toward critical (deaf) pedagogy theory. As such, our voices sometimes diverge. Where they converge, we find common concerns for epistemology and power in pedagogy theory. Both Cochell and Skyer are pursuing PhDs in education. Cochell is a hearing African-American female, interested in knowledge forms and resources within racially minoritized communities. Cochell’s framework situates cultural diversity and equity in culturally-sustaining pedagogy (Ladson-Billings, 1995b; Paris, 2012). Skyer is a late-deaf child of two deaf adults (CODA), raised bilingually in ASL and English, who presently works as a teacher-educator in deaf education. Skyer’s framework situates ethics and aesthetics in educational axiology, drawing on Rancière (1991) and Kress (2010), among others.

*Culturally-sustaining Pedagogy*

Cochell analyzed data through critical lenses regarding intersections of (deaf) culture and (deaf) pedagogy. To do so, we synthesized three theories related to culture in teaching, to encompass the evolving forms of critical/cultural theories of pedagogy while acknowledging their historical foundations. We most often use culturally-sustaining pedagogy (CSP; Paris, 2012), but recognize its roots in culturally-relevant pedagogy (CRP; Ladson-Billings, 1995b) and culturally-responsive teaching (CRT; Gay, 2002). CRP entails the belief that all students can develop critical consciousness and are capable of academic success and cultural competence (Ladson-Billings, 1995a; 1995b). Building on her work, Paris (2012) constructs a more-expansive framework, CSP, which includes multiethnic and multilingual perspectives, a subject of increasing visibility and importance in deaf education (Graham & Horejes, 2017). Cochell focuses on three concepts from CSP that align with CRP: a) teachers’ conceptions of themselves and others, b) how teachers structure social relations, and c) teachers’ views of knowledge (Ladson-Billings, 1995b, pp. 478-481). The first and third were most evident in our data. These issues are similar to theoretical stances related to power, knowledge, and pedagogical art forms.

Critical reflection is a component of praxis, in that theory, action, and reflection are parts of a self-reinforcing analytic cycle in pedagogy (Freire, 1998). Uncritical perspectives held by those in the hearing community often sustain oppressive antideaf biases that marginalize deaf epistemologies, sign languages, and Deaf Culture in schools (Komesaroff, 2008; Ladd, 2003). Aspects of CSP theory have seen uptake in deaf theory (Bahan, 2008; Gertz, 2008; Kuntze et al., 2014), which are used to counteract ableist forces. CSP stands opposed to unwarranted assumptions that position (deaf) students as being incapable or lacking knowledge (Myklebust, 1964), while simultaneously interrupting inequities and injustices in social education (Howard, 2003; Paris, 2012). Through critical reflection, deaf educators can examine and improve their pedagogical practices and address conflicts (even within themselves) pertaining to identity, culture, and race that “shape students’ thinking, learning, and [understanding]” (Howard, 2003, p.197). In CSP, teaching is shaped by community and cultural memberships, therefore, for deaf
educators and researchers, both deaf and nondeaf, critical reflection includes ongoing examination of their own positionalities and involvement in the deaf community (Foley, 2007).

Culturally-sustaining teachers integrate their students' cultural and personal experiences and prior knowledge into pedagogical practices and curriculum design (Gay, 2002; Villegas & Lucas, 2002). Kuntze and colleagues (2014) state that deaf pedagogy can reinforce Deaf Culture by using sign language-based pedagogy and visual knowledge modes, assisting deaf students in gaining positive self-identity and confidence in their own abilities. Through aesthetic evaluation, teachers determine how activities and curricula are organized, what questions are asked, and how they are linked into a cohesive whole based upon the situated needs of individuals and the classroom as a whole (Eisner, 1994). Therefore, evolutions in pedagogical practices can sustain marginalized deaf communities and Deaf Cultures (Komesaroff, 2002; Kuntze et al. 2014; Paris & Alim, 2014). CSP employs curriculum analysis to critically examine how marginalized groups, like deaf students, are represented within epistemological constructs (Gay, 2002; Komesaroff, 2002; Villegas & Lucas, 2002). This pedagogical choice promotes critical consciousness, through which deaf students gain a deeper understanding of how deafness and power relationships are socially-constructed (Komesaroff, 2002). We analyze Harris’ video-publication using CSP because we believe that Deaf Culture should strongly influence the instructional processes in deaf education.

Deaf Pedagogy: Ontological Difference and Visual Aesthetics

Skyer analyzed data using aesthetics in deaf pedagogy, characterized as a nexus point between ontology (visual reality), epistemology (visual knowledge), and axiology (the ethics of the visual). In deaf pedagogy, educational aesthetics are outward expressions of visual knowledge, expressly built for visual beings, based on the values they confer in teaching and learning. Rancière (2010) states that aesthetic- and knowledge-experiences are both shaped by political power in the distribution of the sensible (Rancière, 2004). Aesthetics are an expression of consciousness and political mode of experience. Rancière (2010) shows that aesthetic participation fosters educational agency and guides learning: “aesthetic play thus becomes a work of aestheticization…the self-education of mankind is its emancipation from materiality, as it transforms the world into its own sensorium” (p. 118).

While Rancière looks at aesthetics in learning, Cherryholmes (1999) analyzes it in teaching: “all teachers, students, and others who conceptualize consequences in the classroom take their turn at artistic production regardless of whether they think of themselves as artists [or not]” (p. 31). Acknowledged or not, aesthetic values shape knowledge forms, pedagogical practices, and environments for deaf learning. Aesthetics is a visible manifestation of power and resistance in deaf education, which afford deaf educators tools that bridge the gap between deaf and nondeaf sensory orientations (Kuntze et al., 2014). Multimodality similarly supports deaf learning as a semiotic resource, separate from but coexisting alongside sign language modes (Kusters, Spotti, Swanwick, & Tapio, 2017).

Aesthetic epistemology modulates power. Rancière (1991) extends the logic to interrelate questions about pedagogy and its relation to ontology and senses. Both reality and knowledge are discursively and aesthetically constructed; their politics exist between “the universal and the particular” (Rancière, 2010, p. 57). For Rancière (1991), traditional pedagogy is ontologically flawed. He focuses on explication, the linguistic performance of words where teachers command
knowledge by speaking, noting the false conflation of knowledge with speech, where, oral expression holds privileged status:

[Oral explication] presupposes that reasonings are clearer, are better imprinted on the mind of the student, when they are conveyed by the speech of the master...whose secret is to know how to recognize the distance between [curriculum and student], the distance also between learning and understanding. The expicator sets up and abolishes this distance...in the fullness of his (sic) speech (1991, p. 5).

While explication is ubiquitous in teaching, it marginalizes divergent ways of being and knowing, like deafness. Rancière (1991) subverts the traditional hierarchy, asking, “How can we understand this paradoxical privilege of...hearing over sight?” (p. 5). In deaf education, it is precisely this problem that demands new exploration. Larson (2014) introduces equipotentiality, “consistent with Rancière’s concept that all intelligence is equal, equipotentiality accounts for differential content knowledge and ability” (p. 24). Critical deaf educators respond to ontological heterogeneity by creating environments which sustain all forms of deaf diversity (Kuntze et al., 2014; Young & Temple 2014). Deaf educators must be cognizant of vast but subtle differences among students’ cultures and languages (Garcia, 2009). In deaf education, aesthetic choices about language modality are linked to ontological power (Fleischer, 2008). If deaf educators use an equipotential lens, they respect visual knowledge precisely because they value the diverse ontologies of deafness and desire to empower deaf learners via meaningful participation. Doing so requires hierarchic power relations in classrooms—where deaf and nondeaf intelligences are understood as equal in potential but different in form. We contrast explication with multimodal pedagogy. If explication is monomodal in character and antidemocratic in essence, multimodality is an ethical approach to dynamic, multisensory learning. Using multimodality, educators shape discourse using social semiotics; “makers of representations are shapers of knowledge” (Kress, 2010, p. 27). When knowledge is socially constructed in multimodal ensembles, pedagogues use artistic principles to sustain effective, ethical discourse. In this way, aesthetic pedagogical practices are connected to equity and power in critical deaf pedagogy.

**Methodology**

This study employed qualitative data collection and analysis to examine our research questions and interpret dilemmas in Harris’ video-publication. We began using general queries to open the problem space (what is equity in deaf pedagogy?) and explore tensions among modes (what relationships exist between languages?). Initial analysis showed that language existed within a larger multimodal assemblage, where Harris dynamically teaches the subject of deaf epistemology, using deaf-accessible knowledge to do so. To accommodate the centrality of visual discourses, our methodological approach consisted of multimodal discourse analysis designed for educational inquiries (Kress, 2011; Machin & Mayr, 2012) and leveraged deaf epistemology research tools like positionality-analysis (Graham & Horejes, 2017). In line with Harris’ tools and

---

4 Kress (2011) links multimodality, epistemology, and education: “[Multimodality] provides a richer perspective on [meaning-making] and learning; on forms and shapes of knowledge; on...forms of evaluation and assessment; on the social relations evident in pedagogy; on the (self-) making of identity...[in social semiotics and] learning” (p. 208). Multimodal ensembles are more or less ethical given relations of power in pedagogue-student interactions and the affordances/constraints of knowledge modes used.
recommendations, our methods were informed and strengthened by our positionalities and frameworks regarding culture and aesthetics in (deaf) critical pedagogy.

Our first coding cycle globally explored the data using provisional coding to leverage our positionalities and knowledge. *Provisional coding* establishes codes derived from “literature reviews related to the study, the study’s conceptual framework...research questions [and] the researcher’s previous knowledge and experiences” (Saldana, 2016, p. 168). Prior to analysis, each researcher compiled key terms relevant to the inquiry, deduced from the literature. Skyer used codes like *craftwork* and *aesthetic knowledge*. Cochell used *conceptions of self, others*, and *knowledge-resource*. We used multi-column tables to annotate the video-publication, meanwhile analyzing discourse modes (ASL vs. English) separately from content. Our second cycle employed *axial coding*, which reassembles the data split in provisional coding into a main category, called the axis, and subcategories (Saldana, 2016). Cochell’s axis codes included *contributing to the Deaf community* and *knowledge-as-resistance*. Skyer’s included *multimodal pedagogy* and *aesthetic power*. Axial coding uses “diagrams [and] illustrative techniques” (Saldana, 2016, p. 248), creating new insights about form and content. Multiple illustrations were joined with reflective writing, memo coding, and cross-researcher discussions to clarify our processes, findings, and interpretations.

To interpret the combined data set, we leveraged our situated positionalities. Cochell, whose experiences as a hearing African American female in the US were imbued with multiple forms of racism, analyzed the video-publications’ written texts (subtitles and transcripts) through a critical lens that privileges the lived experiences of minoritized individuals and cultures. Skyer analyzed the video-publication with subtitles on and off to observe interactions among ASL and English. Together, we coded all materials availed by Harris. Transcript analyses occurred alongside analyses of the video-publication as an independent multimodal assemblage. We elected to use these procedures to understand how the video-publication’s individual modalities constitute its aesthetic whole and to decompose it into its constituent parts, with eyes toward the video-publication’s medium and method of dissemination. Our analysis affirmed that ASL video-publications are a tool for critical deaf pedagogues (Fleischer, 2008), and identifies opportunities and problems within Harris’ work.

**Findings**

Three findings are discussed in quasi-chronological order. *Ontological Flaws* critiques erroneous theories of deaf education by contrasting biomedical and sociocultural models. *Culturally-sustaining Deaf Pedagogy* focuses on Harris’s best example of critical pedagogy, “How to Seize Academic Power,” where stakeholders actively employ tools to resist audism. In *Aesthetics and Editing*, we focus on how and why she edits the video-publication. Throughout, we demonstrate the power of aesthetics and culture in ASL video-publications and critical deaf pedagogy.

*Ontological Flaws*

The publication of Myklebust’s (1957) *Psychology of Deafness* was a pivotal moment for deaf research. Harris shows how Myklebust’s pathological viewpoint constitutes a metanarrative. Although a biased product of its time, the text was extremely popular. Harris claims it was used as *the* deaf research text throughout the 1980s.
This book was [an international] bestseller...People used it for their work [including] teachers, psychologists, administrators, supervisors, speech therapists, audiologists...[It] was required for graduate school, universities, training, graduate and undergraduate classes. [It was used] ubiquitously. (Original Transcript, 2015, p. 2)

Myklebust’s training in abnormal psychology and language disorders skew his conceptual framework. We now characterize it as a biomedical, deficit-focused model of deafness. At its core is an audist ideology, flatly stating that “the manual sign [is] inferior to the verbal as a language” (Myklebust, [1957], p. 241-2, cited by Bauman, 2008a, p. 5). This ideology still shapes deficit models of deafness today. Owing to antideaf, biomedical biases, deaf people are often misdiagnosed or discriminated, falsely characterized as being behaviorally, psychologically, academically, or linguistically impaired (Glickman & Hall, 2019).

While Harris criticizes epistemological flaws—the emphasis on problems in learning and difficulties in teaching—via Rancière, we understand Myklebust's root error as ontological. The text misinterprets being deaf. From a nondeaf foundation, it mischaracterizes how deaf people exist, therefore presenting an ableist version of deaf reality. Harris explains Myklebust’s thesis: “Deaf people can’t. Deaf people are limited, their brain capacity cannot function beyond a specific level, and no amount of teaching will make a difference” (07:10 - 7:22). Harris locates the problem in epistemology and condemns the violence of audism in the ongoing epidemic of language deprivation (Glickman & Hall, 2019). While not appearing as data, other theorists clarify. For instance, Bauman (2008a) similarly critiques monomodal instructional methods: “the violence of phonocentrism [is] institutionalized in medical and educational discourses designed to marginalize deaf people” (pp. 2-3). Harris expands on the theme, “masternarratives [are] internalized by [those] within the dominant hegemony and the people being colonized” (Original Transcript, p. 2, emphasis added). Bauman and Harris both decry Myklebust's audist-epistemic violence; and both contrast it with a sociocultural model.

Our analysis acknowledges the harmful role of audism; however, we locate its violence in ontology, emphasizing that the violence of audism, particularly biomedical theories applied in teaching, is violence against being deaf. If the audist view construes deaf reality as inherently broken and in need of substantial regimes of correction (via coercive epistemologies), the sociocultural model overtly values Deaf Cultures and sign languages, and situates deaf values as precepts to deaf pedagogy. Biomedical bias, Harris explains, must be recognized as an audist epistemological construct then actively resisted using “bottom-up” insurgent deaf power. Here, an examination of the data is instructive. To describe teaching and learning in Myklebust’s masternarrative, Harris’ ASL is hyperbolic; her features are exaggerated in a biting critique against audism. Figure 1 shows her sign for teaching as overwrought, indicating the task’s daunting intensity. Her sign for learning also uses stylized embellishment, emulating the deaf learner’s requisite docility and subservience. The flaws of traditional deaf education result in deaf submission to nondeaf hegemony; where deaf students submit to pedagogical tyranny, and even then, stand little chance of success. In the biomedical model, teaching is laborious and learning is nearly worthless. Harris’ rebuke illustrates how historical ontological flaws configure conflicts in contemporary deaf education and research, often found in the power dynamics of decision-making in deaf education.
Like Harris, we reject ableism in theoretical models of deafness. While she focuses on the ethics of power in research, we examine it in teaching practices. For us, deaf educators must value deaf diversity, where visual knowledge modalities are co-constructed alongside culture in interactive pedagogy, the aim of which is empowerment in educational, civic, and artistic endeavors. This orientation acknowledges that deaf students experience the world differently from nondeaf people and construes it as a source of strength. Deaf educators of this stripe respect the multiplicity of deaf students’ languages and cultural affiliations (Kuntze et al. 2014; Young & Temple, 2014). To wield power ethically, we suggest that equipotentiality is a viable alternative grounding for theory, inclusive to difference, and a course correction away from ontological violence. Drawing on Rancière, Larson (2014), describes equipotentiality this way: “all intelligence is equally valuable...In equipotential participation structures, everyone [is] a teacher and everyone [is] a learner in activities in which power relations are heterarchical” (p. 24). Using equipotentiality, critical deaf pedagogues reject the flawed biomedical model and reconfigure power relations by centrally situating deaf knowing and deaf being in pedagogy (Kuntze et al. 2014; Ladson-Billings, 1995a). We argue that equipotentiality is equally applicable in deaf pedagogy and research methodology.

Using the rhetorical power of ASL and the video-publication’s technological capabilities, Harris uses space and images to contrast hierarchy and heterarchy to describe power inequities in deaf research; in doing so, she essentially describes equipotentiality. Two examples (Figures 2 and 3) analyze her multimodal pedagogy. In each, visual diagrams are used in conjunction with bilingual teaching to examine power conflicts. First, we describe the rhetorical content, then counterpose her ASL and written English. In Figure 2, the top image shows how in traditional deaf research, hierarchical power is exerted from the top, where nondeaf researchers wield disproportionate power. The contrasting bottom image shows how deaf-led or mixed teams operate using equitable heterarchical arrangements, where power is equally distributed. Of interest is Harris’ use of facial affect (Non-Manual Signals [NMS], one ASL morpheme). In describing hierarchy, Harris emphatically grimaces her lips (19:01), marking disgust, which critically characterizes her utterance on hegemonic power relations. In describing heterarchy, Harris uses an
affect marked by pride and power—*determination*. An emphatic pursing of the lips demonstrates perseverance in the face of long odds (19:12). Harris describes this dynamic differently in written English:

The person [atop the hierarchy] is typically white, hearing, and male. The more culturally appropriate model would be a team...where everyone has equal status, with perhaps two leaders, one being deaf and the other hearing...Deaf-led research teams are crucial in keeping the research project genuine, honest, and authentic. (Original Transcript, p. 8)

*Figure 2. Hierarchical and Heterarchical Power in Deaf Research* [Top: 19:09; Bottom: 19:20]. © Harris & Loeffler (2015), Used with Permission.
Figure 3, Visualizing Power  [Top Left: 08:33; Top Right: 13:01; Bottom: 09:35].
© Harris & Loeffler (2015), Used with Permission.

Figure 3 establishes a tryptic that shows another example of Harris’ mise-en-scène in which the upper-left space is a placeholder for nondeaf power, positioned as antagonistic to deaf researchers like Harris. For her, seizing academic power entails active inversion of traditional hierarchical power structures and their replacement with an equitable heterarchy using deaf-centric methods. Harris states: “by recognizing masternarratives, we are able to resist the damaging discourse and replace [them] with counternarratives” (09:35); likewise, agentive rejection of hierarchy is an imperative for ethical conduct in deaf education research (13:15 - 13:21). Figure 3’s largest frame is worth close examination because the ASL utterance is distinct from the English replace. Harris uses the “H” handshape, angled upwards and to the left, signifying THROW IT AWAY (Vicars, 2015)—the act of disposal. In this case, the invisible referent (hierarchy) in the upper-left is actively discarded by Harris, and by proxy, other critical deaf researchers and educators. The phrase colloquially states: WE REJECT THEM. Using scholarly terms, and

5 Mise-en-scène is how cinematic scenes are visually arranged. Bauman and Murray (2013) explain that the use of cinematic descriptors are appropriate analytic techniques for ASL video-publications.
considering context, we posit an expanded translation: *Critical deaf pedagogues and researchers must deracinate ableist ideologies and their manifestations in research and teaching.*

Harris shows how powerful interleaved messages and multimodal pedagogy maximize visuospatial deaf epistemology and the discursive use of the body in teaching. As a critical, culturally-conscious researcher and pedagogue, Harris uses multiple, overlapping visual forms of aesthetic knowledge, including but moving beyond the languages of ASL and English, in a clear demonstration of how to seize academic power and reject audism in deaf education research. Simply, *the medium is the message.* Given equipotentiality, we reject the pathological view of deaf people as ontologically lacking. Instead, we subscribe to deaf gain, an ideological inversion of hearing loss (Skyer, 2016); recognizing that deaf *knowing* differs from nondeaf knowing (Hauser et al, 2010), because *being* deaf differs from being hearing (Young & Temple, 2014). Neither are inferior or superior, nor demand comparison to the other. This argument constitutes deaf axiology, an explicit positive valuation of deaf ontologies and deaf epistemologies, and their placement within (anti-ableist), multimodal critical deaf pedagogies and research forms. By centralizing multimodality, Harris demonstrates how to wield the tools she describes in research and teaching.

**Culturally-sustaining Deaf Pedagogy**

We regard cultural participation in deaf education as socially and politically constituted. Participation in deaf education, as learner or teacher, is a negotiated and contested process where multiple cultures coexist, often in unequal relations. Our approach considers all deaf students and their teachers to be legitimate knowers who mutually engage with multimodal discourses, tools, and activities, in the critically-conscious, cultural work of knowledge construction. This view coincides with Harris’ video-publication, which depicts marginalized people engaged in a political struggle to assert their cultural identities, while combating discriminatory narratives from dominant academic communities. In this section, we explore the relevance of CSP theories within the video-publication’s medium and message about growing Deaf Cultures and sign languages in deaf pedagogy. By linking pedagogy and academic power with aesthetics and culture, we consider how they relate in teaching contexts where deaf and nondeaf cultures exist in unequal power relations.

Our CSP lens reveals how Harris believes that deaf pedagogy is an art form in which cultural agents contribute meaningfully and how she perceived herself as an agent of change within academic research. Harris argues that all students are capable of academic success, a stance evident in her critique of Myklebust’s false claim about deaf student’s inferior cognitive abilities. Harris believes that deaf and nondeaf students are equally capable, illustrated in the narrative about children who benefit from sign language, a stance that argues against the belief that learning sign language causes cognitive delays for deaf children. In line with deaf gain research (Snoddon, 2014), Harris implies that sign languages, including ASL, are universal human goods, useful and cognitively beneficial for all, but necessary for deaf children.

Harris positions herself as a contributing deaf academic community member. Within the video-publication, she demonstrates how she is proudly deaf, thereby rejecting the audist ideology that *deaf=broken.* Harris uses collectivist first-person narration: referring to *us, we.* ASL is *our* language. These pronouns show belonging and contribute to normalizing deaf membership in academic communities. Harris uses ASL as part of her multimodal pedagogy to grow Deaf Culture by transforming her experiential knowledge, gained from participating in research work, through
the synthesis of tools that assist others navigating similar pathways. Harris claims that substantive forms of deaf knowledge should be included in deaf research to defy deficit narratives and subvert nondeaf academic conventions in publishing, thus expanding the relevance of deaf research inside and outside of deaf education. Harris legitimizes the use of deaf experiential knowledge to rebalance the distribution of power toward deaf contributors. As such, norms for citations differ:

Why [do we adhere] to their emphasis on citing [journal] publications over authentic, genuine knowledge and experience? Set aside the academic cultural rule that we [must] cite publications by privileged people, and honor those with direct and authentic [deaf experiences] (Original Transcript, p.7).

For Harris, knowledge needs to be critically viewed, actively analyzed, and assertively resisted at times. Harris’ tools empower deaf scholars striving to make gains in predominantly nondeaf contexts, a site of power and knowledge interactions. Seizing these tools enable students and teachers to assert autonomy and resist the deleterious effects of deficit ideologies. For her, deaf educators are political workers who undermine the hegemony of ableism. Figure 4 is a trptic demonstrating this claim. Harris describes this work as “TEACH, DISSEMINATE, CHANGE” [10:19-21], in ASL. In English: “I am educating [outsiders] about how I want to be described. This resistance will multiply and help contribute to positive change” (Original Transcript, p. 3). Note the contrast between connotations of teach, relative to Figure 1.

Harris shows that teaching is an evolving cultural-artistic practice. Her video-publication uses English but is built to showcase ASL’s hand, arm, head, and body articulations and facial expressions. Her teaching welcomes and is accessible for deaf and nondeaf viewers using the affordances of multimodality. Harris exudes enthusiasm for change, evident in her embodied criticisms, which promote deaf critical consciousness and empowerment in academic research and higher education. Her tools fight against marginalization and toward equitable power-sharing and knowledge-construction from inside and outside one’s own community. As a means of critically reflecting on her pedagogy, Harris reshaped the video-publication. Doing so showed her process of becoming and commitment to pedagogical ethics using cultural knowledge forms.

Aesthetics and Editing

Harris’ apologetic edits illustrate critical reflection, where the pedagogue analyzes her own biases; however, they also introduce problems. Prior to retraction, Harris employed racial analogies, what we call a metaphor of colonization (Tuck & Yang, 2012), which attempted to characterize the threat of destruction that colonization poses to indigenous ethnocultures and unique knowledge forms—including deaf epistemologies and cultures (Hauser et al, 2010; Ladd, 2003; Lane, Pillard, & Hedberg, 2011). The original video-publication compared linguistic and cultural domination against deaf people with practices applied to other marginalized groups. She cited the Maori in New Zealand/Aotearoa and the Navajo in North America as groups subjected by colonial powers, as a parallel to how deaf knowledge and realities are colonized by nondeaf regimes. “The claim of a hearing-colonialist regime may seem extreme [but] once the history of

---

6English subtitles provide visual access for some but not all deaf people; likewise, not all deaf people know sign language and not all signers use ASL. In contrast, Harris’ use of image descriptions evinces ethical communication principles for low-vision and deafblind individuals.
Figure 4. Agency and Critical Consciousness in Deaf Pedagogy. [Top: 10:19; Middle: 10:20; Bottom: 10:21].
© Harris & Loeffler (2015), Used with Permission.
deaf people comes to light, [it is clearly] bound up in the historical practices of normalization [and] institutional practices of ableism, racism, and sexism.” (Bauman, 2008b, p. 14). Like Tuck and Yang’s (2012) critical work on decolonizing indigenous education, we find that theorizing deaf education, requires unsettling work, in both senses of the word, to “reimagine human power relationships” (p. 28).

Deaf people, historically and presently, are a subjugated people, dominated by hegemony and systemic discrimination via ableism (Bauman, 2008b; Ladd, 2003; Rée, 1999), where the dominant group uses ideology toward linguistic and cultural subjugation (Garcia, 2009). Harris’ metaphor was an illustrative technique that productively juxtaposed Deaf Studies and decolonization studies. Her inclusion of de/colonial issues probed racism and aptly linked racism to ableism (Baynton, 2013). It availed for thought subjects like deaf decolonization and deaf indigenous studies. Our CSP stance shows that Harris reflects on her knowledge production and overtly problematizes her axiology to make (what she considered) improvements toward a “more culturally respectful product” (Edited Transcript, p. 4). Like Harris, we support teachers who confront inequities of power in education, including teachers who teach marginalized groups they aren’t members of. In a CSP community, founded on mutual respect, teachers must be “allied with the political struggle of the community” (Hyland, 2009, p. 108). Harris’ work acknowledges the political struggles of some deaf communities, but obscures others.

Harris’ edits downplay intersectional deafness and erase the contributions of deaf people of color, deaf indigenous people, and deaf people from the Global South, who may suffer under literal colonialism and ableist hegemony functioning like colonialism (Bauman & Murray, 2010; Grech, 2015). Harris missed an opportunity to teach others about hegemonic assaults against deaf people living in post/colonial conditions about deaf intersectionality, where deafness interacts with other forms of oppression against sexual orientation, gender, disability, class, and the politicized movements of people across borders through history (Baynton, 2013). Young and Temple (2014) explain that deafness is an aspect of identity that is not static or homogenous. Anderson and Grace assert, “deafness should not be viewed as a dominant or defining experience that supersedes racial or ethnic differences” (cited by Foster & Kinuthia, 2003, p. 272). “Critical reflection...enables teachers to recognize the vast array of differences that can exist within groups” (Howard, 2003, p. 201); however, Harris’ edits do not. In minimizing deaf diversity, Harris suggests that deafness does not coexist (or conflict) with racial, ethnic, or cultural differences.

Though Harris belongs to a (deaf) minority group, she recognizes her privileges as a Caucasian academic in a position of relative power. She acknowledges that retraction was “confusing and disorienting” (Edited Transcript, p. 3) for viewers, yet fails to substantially address the removed content. Harris’s apology is not a critical unpacking of how race, power, and deafness intersect in deaf decolonization and offers few tools for understanding how these important aspects of deafness affect deaf research and education. Problematically, her revision focuses on her own positionality, thereby othering the subject. Please note her pronoun usage:

---

7 Similar to Tuck and Wang’s characterization of indigenous education, deaf pedagogy theory requires an "ethic of incommensurability " (p. 28) to redress unique grievances. We note that deaf people are perhaps the only colonized group without occupied lands to reclaim. We recognize the irony of comparing incommensurable to itself, but hold that decolonizing strategy in deaf and indigenous education use parallel and overlapping arguments; likewise, they are not mutually exclusive, given that deaf indigenous people exist in doubly oppressed contexts (Indian Country Today, 2016).
I am not Indigenous or a Person of Color, I will never understand what it’s like to go through the violence, the systems [of oppression] they experience...I have never experienced those, and I never will. And for me to...make analogies with those experiences was wrong” [04:17-04:29].

While the experience of literal colonialism is not hers, the edits imply that systemic antideaf discrimination is a class of violence mutually exclusive to suffering under colonialism. We disagree. We appreciate her pedagogical ethics and critical reflection; however, her revision is reactionary. It neglects complexity and results in less cross-cultural understanding.

Audience-interaction is part of multimodal praxis (Kress, 2010). With greater interaction comes the potential for greater and lesser understanding. This argument matters for publications in ASL, especially when revisions supplant originals. Examining historical documents on deafness, such as Harris’ analysis of Myklebust, allows researchers to examine prejudice. Through it, we learn how power and epistemology change over time. Deleting research—done under cover of “editing”—prevents this analysis. Via inspections of the original transcript (and memory), we can only begin this genealogical work. Others cannot. An analogy can be drawn between her edits and the “Memory Hole” in Orwell’s (1949) Nineteen Eighty-Four, where documents are altered and the originals are destroyed. While power is generated through the integration of the parts with the whole, removal of parts may compromise the aesthetic integrity of the pedagogical whole (Cherryholmes, 1999). Her erasure is problematic and the edited video-publication is a less compelling form of critical pedagogy. Deletions prompt questions about preserving ASL texts—including problematic elements—for historical analysis. In this regard, we find erasure to be aesthetically, epistemologically, and pedagogically unsatisfying.

Discussion

“Seizing Academic Power” is a multimodal tool for critical deaf pedagogy that uses visual knowledge modes to teach about power relations in deaf education research. Two themes are synthesized that answer our research questions and throughout, we respond to a third: What do our findings mean for ableism in higher education and audism in deaf research? The first considers why the praxis of teaching theory matters in teacher-training programs. The second considers why aesthetics, culture, and power matter in disseminating ASL video-publications.

The Praxis of Deaf Pedagogy Theory in Higher Education

The first theme connects K-12 deaf education with research-based theories in teacher-training programs, where deaf pedagogy theory is conceptualized, taught, and applied in institutions of higher learning. If ableist theories, like Myklebust’s (1964) biomedical model, are developed and taught in higher education, they are then reified in K-12 deaf education. Poorly conceptualized theories, rooted in ableism, may be uncritically transmitted in teacher-training programs and reconstituted as ableist K-12 practices, which harm deaf children (Skyer, 2018). To interrupt the harmful cycle, we use equipotentiality as a base on which to build new pedagogical and research methodologies. Deaf pedagogy theory resides at an imbricated nexus of ontology, epistemology, axiology, and methodology. While Harris locates problems in epistemology, we examine the nexus in full. Equipotentiality is an explicit valuation of difference, where critical deaf pedagogues restructure power relations by valuing being and knowing as a deaf person. Like Harris, we find it necessary to use the tools of critical reflection and praxis (Freire, 1998; Ladson-
Billings, 1995b) and actively wield the tools of resistance against problematic (ableist) epistemologies based on flawed ontological assumptions that devalue deafness.

This argument is important for teacher-training and research in higher education, where theories are developed, taught, and reified as classroom practices. Similar flaws are rooted in higher education contexts where deaf research is conducted, including Marschark and colleagues’ (2009) uncritical claims and questions like: Which language modality (singular) is best for deaf development? And “[deaf students] lag behind hearing peers regardless of...signed or spoken language” (p. 368). As Rancière (1991) rejects “the pedagogical myth [that] divides intelligence in two [falsely stating] that there is an inferior intelligence and a superior one” (p. 7), we reject that “hearing” or “deaf” intelligences are better or worse than one another. If all intelligence is equal, and all hierarchies of intelligence must be rejected, we are left with new goals for deaf pedagogy and the academic research informing it.

Deaf-centricity is needed where educators learn how to teach and where research is conducted; both groups need empirical evidence and emphatically anti-ableist methodologies (Sutherland & Rogers, 2014). Empirical studies show that interactive multimodal teaching engages deaf students, resulting in prosocial cognitive development (Easterbrooks & Stoner, 2006; Starosky & Pereira, 2013). Elsewhere, Hauser and colleagues (2010) link visually adapted deaf epistemologies to power, arguing that supporting deaf epistemologies creates “a positive impact on how deaf individuals learn, resist audism, stay healthy, and navigate the world” (p. 486). The power and efficacy of Harris’ methods substantiate the ocularcentric theories of deaf pedagogy that frame our paper, wherein deaf people are understood as visually and spatially oriented (Bahan, 2008; Gabel, 2009; Young & Temple, 2014). We posit that higher education teacher-training should actively combat ableism in pedagogy in the same way that racism, sexism, homophobia, and other unjustified hierarchies are combatted.

Research Production & Dissemination in Higher Education

The second theme examines how new publication formats function and change how deaf and other faculty navigate power structures in universities where deaf people teach and research. Harris’ video-publication is a direct challenge to textual publishing that raises critical consciousness and promotes equitable power relations within and beyond deaf research. It inverts both the form and substance of Myklebust’s pathological masternarrative and demonstrates the power of multimodality, as a counteracting force against “asymmetries and inequalities encountered by [deaf] signers” (Kusters, et al., 2017, p. 7).

Harris and her participating audience each contribute epistemic power that shape the final publication. For instance, Harris’ substantial revision is a direct result of horizontal participation by those outside of the academy. In this heterarchical power relationship, scholars, educators, students, and ordinary folk construct and critique ideas communally; each agent asserts power by creating and sharing multimodal representations in participatory convergences (Kress, 2010). As such, Harris’ video-publication is an artifact of equipotentiality—a manifestation of multimodal knowledge interactions—that afford nonacademic stakeholders the ability to contribute to deaf pedagogy and research. The technosocial capabilities of video-publications positively shape deaf research methodologies and research dissemination (Sutherland & Rogers, 2014; Thoutenhoofd, 2010; Young & Temple, 2014) in higher education by broadening opportunities for contribution. As such, they constitute a compelling form of intrinsic deaf gain, in which the rights for Deaf
Cultures and sign languages, are communally asserted. If Harris’ model is exported by academics from other marginalized cultures, it would constitute a form of extrinsic deaf gain.

**Conclusions**

“Seizing Academic Power” is an imperfect but more-ethical method for deaf pedagogy and deaf research dissemination. Harris leverages her knowledge and positionality to construct critical tools for deaf stakeholders to sustain and grow Deaf Cultures and languages through deaf pedagogy and combat discrimination by replacing ontologically flawed methods with accessible, interactive, and multimodal ensembles, in teaching and research. In this article, we analyzed and expanded her critique of audism to include K-12 and deaf higher education. Using critical (deaf) pedagogy as a grounding, we interpreted our findings through theories of aesthetics, culture, and situated our analysis in terms of knowledge and power. By linking deaf pedagogy theory with equipotentiality, where different forms of knowledge are held as equal, our analysis explored how video-publications combat ableism in the academy, in form and content. Throughout, we documented deaf gains regarding the ethics of deaf pedagogy and research about it, which, as Bauman and Murray (2010) predicted, are “likely to take place if there is a strong visual presence in media [and] public discourse” (p. 222). Video-publications are both: an innovative, multimodal teaching method and novel form of bilingual academic research that resist ableism by collocating aesthetic knowledge modes and Deaf Culture with ASL and textual English to transform power in teaching and research.

Video-publications are available to deaf and nondeaf critical pedagogues. The medium and message of Harris’ video-publication are intended to awaken power already held by anti-ableist scholars, teachers, and students. Harris’ tools could be repurposed by others from non-dominant cultures or disability groups to critically analyze the axis of power and knowledge within pedagogy research. We hope our analysis is beneficial for theorists of (deaf) critical pedagogy and welcome scholars from allied fields like critical disability studies to adapt these tools for different anti-ableist purposes. We also welcome new critical analyses of different ASL video-publications about deaf pedagogy and research, produced by other scholars, for different audiences and purposes, using different theoretical frameworks and positionalities. We anticipate this work will expand our practical, theoretical, and methodological knowledge.

Clearly, scholars have yet to exhaust the potential power of ASL video-publications or explore the full dimensions of their actualized power. Innovative applications are presently being designed. Video-publications constitute an epistemological form of deaf power, rooted in Deaf Culture and made visible by multimodal pedagogy using deaf aesthetics and digital technologies. As Bauman and Murray (2013) assert, “the significance of academic discourse in ASL may be most prominent if the visual, spatial, and kinetic dimensions of the language are explored for their greatest rhetorical power” (p 249). We believe video-publications meet these criteria, which are employed to subvert antideaf biases in deaf higher education, in pedagogy and research.

In our view, the aim of deaf research is *not* to compel deaf people to *be* and *know* more like hearing people. Instead, as Bauman and Murray (2010) suggest, we ought to explicitly value and explore deaf gains as variations of human intelligence that enlarge the definition of *being* human: “[Deaf gain studies] must [argue for] the preservation of deaf people and sign languages [and the] scientific exploration of the human character” (p. 222). In this way, we come full circle to the inward/outward focus of our research questions. As we demonstrated in this qualitative analysis,
multimodal deaf pedagogy can deracinate ossified deficit ideologies about deafness, in teaching and publishing. The aesthetic dimensions of (deaf) critical pedagogy, and their sociocultural and political groundings, are important and increasingly visible dimensions for the task of teacher development, not just for deaf educators, but for all concerned with the intersections of knowledge and power in higher education. We now ask: What does it mean for a deaf person to learn multimodally in an environment built for oral speech? What axiological values undergird the use of aesthetics in deaf education? Finally, What does taking a critical stance mean for theories of deafness? And, conversely, What does taking a critical stance in deaf education mean for general theories of human education? We find that asking and critically unpacking new questions is of the utmost importance for all educators interested in the power of equipotentiality.

References


Gay, G. (2002). Preparing for culturally responsive teaching. *Journal of Teacher Education-Washington DC*, 53(2), 106-116. Retrieved from [https://journals.sagepub.com/doi/pdf/10.1177/0022487102053002003?casa_token=3jXtvuS8QoAAAAAAqYZsKZEqVN9j3DxvmBQqzvDDO0sqt66dMKt_h8QwMKuc1Qun e0cfRNH95Z07z6qj0eNxBqMO2_Q](https://journals.sagepub.com/doi/pdf/10.1177/0022487102053002003?casa_token=3jXtvuS8QoAAAAAAqYZsKZEqVN9j3DxvmBQqzvDDO0sqt66dMKt_h8QwMKuc1Qun e0cfRNH95Z07z6qj0eNxBqMO2_Q)


**Authors**

Michael E. Skyer is a Senior Lecturer in the MSSE program at NTID, a program focused on training the next generation of deaf educators. Skyer is also a PhD candidate at the University of Rochester, researching visuality and multimodality in deaf pedagogy. Skyer also serves as the book review editor of the American Annals of the Deaf.

Laura Cochell is a Ph.D. candidate in the Teaching, Curriculum, and Change program at the University of Rochester Warner School of Education. Her research interests include social foundations of education, curriculum and instruction, and social justice reform in mathematics education.