SECTION I

The Nature of Scientific Research at the Nexus of Race, Culture, and Disability

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CHAPTER 2

"Ways of Seeing" in Race and Disability Research

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INTRODUCTION

The following review presents a conceptual overview of race and disability research drawn from the fields of rehabilitation, education, history, cultural studies, public health, and medicine. Our focus is on the assumptions, rationales, and functions of research rather than the content or details of methodology. This approach emerges from a sense that rehabilitation and disability scholars have yet to engage in a systematic dialogue over the meaning of race and ethnicity in research. There is no single point of entry for researchers interested in the study of the intersection of race and disability. Rather, multiple disciplines representing an array of perspectives on inquiry have been employed in the body of work over the years. The intent of the review is to provide scholars, particularly new researchers, with a template for organizing how research problems have been conceptualized in this area. Despite all of the attention devoted to the topic, the ways in which race is relevant to the disability dialogue remain very much a matter of debate. In effect, have we really reflected on our constructions of race in the research questions we ask? In the following review we considered these constructions across three dimensions: (a) the traditions of research represented in the literature, (b) functions served by the research questions, and (c) the construction of the nexus in the questions. We conclude with an analysis and a summary of how these dimensions are represented across the body of contemporary research.

RESEARCH QUESTIONS AND TRADITIONS OF INQUIRY

During the 1980's, interest in alternative methodologies led to what has been called the "paradigm wars". These were debates focusing on the merits of alternative traditions of inquiry, and typically presented in terms of the relative merits of the quantitative

and qualitative research traditions (Gage, 1989). Although the quantitative–qualitative distinction is still commonly applied, the dichotomy fails to reflect the true diversity of research on the nexus of race and disability.

Research texts were examined to learn more about the traditions of the paradigm wars. The search yielded a veritable forest of "isms" describing models, doctrines, philosophies, systems, or theories describing ways of knowing, including: constructivism, holism, interpretivism, phenomenologicalism, positivism, revisionism, relativism, structural-functionalism, technocentrism, and the assorted post-, pre-, and pseudo- variations. At some risk of oversimplification the central differences across perspectives can be reduced to three variations in emphasis: (a) postpositivism with its emphasis on objectivity and verifiable knowledge (the postpositivist, as opposed to the positivist, accepts the potentially biasing effects of the human researcher); (b) constructivism with its emphasis on meanings and other subjective representations; and (c) transformative inquiries, a hybrid term coined by Mertens (2005) to describe a class of approaches anchored on understanding the "social, political, cultural, economic, ethnic, gender, and disability values in the construction of reality" (Mertens, p. 23). These perspectives represent approaches sensitive to different facets of a given social phenomenon. Furthermore, differences among perspectives are often more a matter of degree rather than a matter of kind. To emphasize meanings and values in research, for example, is not necessarily tantamount to rejecting the importance of objectivity.

Postpositivist Constructions

Experimental, or causal, thinking is at the heart of research on race and disability. The process and logic of experimental concepts were developed by John Stuart Mill, the 19th century philosopher, and should be familiar to students of the social sciences. These concepts include: (a) causes precede effects in time; (b) when causes are present, effects will be present; (c) when causes are absent, effects are absent; and (d) when two phenomenons are observed to co-vary, they are associated in some manner (Campbell & Stanley, 1963; Dewey, 1931). The essence of experimental conceptualization is comparative: A variable that is being measured under two or more conditions is held constant, to the greatest extent possible, in all respects except for the variables being tested. Differences in the outcome are attributed to the differences in the independent variables. This basic scheme can be expanded into literally hundreds of design options.

The notion that experimental thinking is central to our conceptions of race and disability research may strike those familiar with the research as a serious misrepresentation; there are precious few studies involving direct manipulation of an independent variable by the researcher, or use of randomly assigned subjects to treatment and control conditions, which are key features of experimental methodology. Even

the well-designed quasi-experimental efforts (i.e., studies not employing random assignment but capable of controlling most threats to internal validity) are rare. Nonexperimental methods such as surveys, interviews, archival analyses, and naturalistic observation, to name just a few, represent the dominant resources in the toolkits of researchers in the area. Nevertheless, experimental concepts very much affect our ways of thinking about the phenomenon of race and disability. Much, although not all, of the race and disability research has emerged from social science-based disciplines where the experimental method is held as the paragon for inquiry. Not coincidentally, the orientation dominates the research training curricula in most subdisciplines of the social sciences. Research coursework tends to emphasize experimental design, and statistical instruction largely focuses on the analysis of data derived from experimental studies. How does experimental thinking translate into questions about the nexus of race and disability? We observe three variations: (a) studies of the efficacy of an intervention on racial or ethnic minority samples; (b) studies in which race, disability, or a combination is implicitly framed as the independent variable; and (c) queries about how race, disability, or a combination moderates or mediates other cause and effect relationships.

The first group of studies is the most direct and appropriate application of experimental thinking in race and disability. They are experimental in intent and design. The questions are framed around the role of race in mediation intervention effectiveness (e.g., "Does the intervention efficacy interact with race and/or disability?"; Taylor, Baranowski, & Young, 1998), or are questions about the efficacy of interventions designed specifically for racial or ethnic minority groups or issues (Taylor-Ritzler et al., 2001). Causal inference is established by maximizing the similarity of the conditions via design controls, and then directly manipulating the intervention.

Not all causal questions are manifested in experimental designs. In the second form of questions, a broad array of dependent variables is compared across race or ethnic groups. Examples include employment rates (Meade, Lewis, Jackson, & Hess, 2004), health (Furner, Giloth, Arguelles, Miles, & Goldberg, 2004), relationships with rehabilitation professionals (Wintersteen, Mensinger, & Diamond, 2005), earnings and benefits (Lustig & Strauser, 2004), multiple sclerosis-associated disability (Marrie, Cutter, Tyry, Vollmer, & Campagnolo, 2006), and well-being after injury (Krause, Broderick, Saladin, & Broyles, 2006), among others. Implicit in the framing of each question is whether a disparity exists and if race or ethnic groups account, directly or indirectly, for the difference.

The third and largest variation in experimental frameworks is represented in queries about how race, disability, or combinations thereof are affected by other variables, or mediate other presumed causes. Study methodologies range from pre- and post-test designs using race as the group variable, to large scale cross-sectional surveys evaluated with multivariate statistical techniques. The concept of mediation is an old one in behavioral research (Baron & Kenny, 1986) and refers to a variable intervening between a presumed cause and the outcome variable of interest. Capella (2002), for example, critiqued much of the body of the rehabilitation outcome research for not accounting for the effects of other variables in addition to racial or ethnic groupings. While his analysis of vocational rehabilitation (VR) outcomes still found group differences, the degree of difference was affected by gender, age, and severity of the impairment. Similarly, Giesen, Cavenaugh, and Sansing (2004) found differences varying across forms of impairment, with greater access to the VR system among African Americans with visual impairments. In these studies, racial and ethnic group differences are mediated through other personal characteristics such as impairment, severity, or gender. Other examples of research questions directed to the mediating effect of racial groups include: (a) quality of care (Richardson, Anderson, Flaherty, & Bell, 2003); (b) pain-related disability (Edwards, Moric, Husfeldt, Buvanendran, & Ivankovich, 2005); (c) restrictiveness of school placement (Hosp & Reschly, 2002); and (d) VR outcomes (Moore, Feist-Price, & Alston, 2002; Warren, Giesen, & Cavenaugh, 2004).

Constructivist Approaches

Constructivism is employed here to represent a broad class of inquiry that embraces human subjectivity. The notion that an empirical reality exists apart from human consciousness is rejected. Silverman, Smola, and Musa's (2000) interviews with older African American and White research participants is prototypical of the approach. The essential question was one of "meanings" attached to the concept of "healthy" and "not healthy," and the potential effect of culture on these perceptions. The subjective experience of the participant was the point of the analysis. Other examples include King, Teplicky, King, and Rosenbaum's (2004) exploration of disability and religion in the Black church using interviews, or Dossa's (2005) case study of a female activist who was Muslim and disabled. Consider the character of their questions and the purposes served by their framing. King et al. asked how the Black church affected the disability experience of its disabled members; Dossa asked how overlapping identities relate to each other and their contexts. While the postpositivists frame questions in terms of a reduced set of variables in order to better control extraneous explanations and isolate causal effects, the constructivist embraces complexity and subjectivity. Reality is socially constructed and thus can only be understood through the experiences of those we study. The researcher does not attempt to control the internal world, but rather seeks to be an interpreter of human experience.

Transformative Applications

Mertens (2005) employs the "transformative label" to describe studies focused on examining social, cultural, and historical influences on our knowing. The classification provides an imperfect fit in the three-way taxonomy; research can readily overlap with constructivist and postpositivist perspectives, and does not do justice to the nuances of many forms of research falling under the transformative label, such as critical inquiry, or historical research. Nonetheless, the category is very useful for our analysis of race and disability research since an important core of work that has emerged over the past few decades has focused on challenging the basis of both our political and cultural understandings of disability and race.

An example of this concept is presented in Ferri and Connor's (2005) exploration of contemporary resistance to school inclusion for children with disabilities. The investigators portray the resistance as an extension of the racism seen in the efforts to desegregate schools in response to the Supreme Court's Brown decision. In their analysis of what they referred to as the "discourses of exclusion" (p. 468), Ferri and Connor argue that disability inclusion and racial desegregation are intimately related, with special education serving as a new institutional mechanism for maintaining the status quo. Balcazar, Garate-Serafini, and Keys' (2004) application of an empowerment intervention for low-income minority youths with disabilities provides a wonderful juxtaposition of perspectives. Although seemingly constructed as a standard pre- and post-test intervention study, the study question, intervention design, and study purpose were anchored in the framework of social oppression (Freire, 1970). The intervention and study purpose focused on shifting power relationships, and the role of the investigators was explicitly framed in terms of agents of social change. This is a far cry from the public persona of the researcher as the detached observer.

Summary: Research Questions and Traditions of Inquiry

The thematic threads of the different traditions, and the overlap in their applications should suggest a continuum along which all forms of inquiry lie. The study of race and disability must be a broadly conceived effort such that our interpretations of the phenomenon under study are not confounded with the methods employed in studying it. The human visual system is an excellent metaphor for the research task. Our visual system does not *see* so much as *reconstruct* a visual representation of the external world; much like the research enterprise, images are complementary parts of the whole.

The vast majority of studies are experimental in construction, although exploratory in intent. Their purpose is to identify disparities across groups, or to better understand how differences across racial groupings interact with other collateral variables such as impairment or economic status. This approach makes sense, at least from the perspective that our efforts remain at a very early stage of development: The studies attempt to impose conceptual order on phenomena not well understood. Although this is an extremely important heuristic function, it is merely the outer

shell of inquiry. The fact of differences across groups defined by race and/or ethnicity is only the starting point.

This is an important perspective to maintain when evaluating the body of literature. For example, Helms, Jernigan, and Mascher (2005) cogently argue for the replacement of racial categories in research designs with other more meaningful variables than race such as identity or social categories. And while we agree that race is an imperfect and often irrelevant variable, their recommendation for alternative groupings is only a partial solution to the study of race and disability. Our brief summary of approaches, broadly labeled as post-positivist, constructivist, and transformative work, should illustrate how the framing of problems as group differences is only one facet of the phenomenon.

This is not a critique of the experimental approach, but rather a cautionary note about framing the research question. Attempts to identify differences based on group identity or to isolate the most important predictor may not lead to the most relevant research question. The answers drawn from studying such research questions should be interpreted for what they are—efforts to isolate patterns of relationships amidst a noisy environment of unknown complexity. The critical point is that the researcher acknowledges both the complexity of the phenomenon under study, and the limitations of the particular question addressed.

THE FUNCTIONS SERVED BY RESEARCH QUESTIONS

For those interested in the broad view of disability and race, the better question may be what functions the questions serve. Among the various taxonomies employed in the research literature, a very broad three-way taxonomy modified from Lieberson (1985) is particularly useful: (a) description and fact-finding; (b) identifying patterns; and (c) theory testing. Excluded here from Lieberson's taxonomy is his fourth function, suggesting policy, since relevance to policy in the body of disability research arguably is implied in virtually all disability research efforts.

Description and Fact-Finding

Fact-finding is one of the most common forms of inquiry and is organized around the systematic documentation of differences between racial and ethnic groups. A consistent theme in disability and race research is the ongoing effort to measure and report population size or group status on various indicators relevant to disability policy: educational achievement (Bound, Burkhauser, & Nichols, 2001), employment (Meade et al., 2004), poverty (Fujiura & Yamaki, 2000), prevalence (Manton & Gu, 2001), and many others. Many of the basic comparative studies cited in the previous section can also be described as serving the fact-finding function. The associated question is simple: Is there a difference on some indicator between groups defined by race and ethnicity? Although the question is simple, the implications are potentially profound. Consider the visibility given to annual poverty statistics. Prior to the development of the poverty line in the 1960s and the description of the proportion of Americans living in poverty, the issue was largely invisible in the national policy deliberations and politics (Batchelder, 1966). Basic description serves a foundational role in identifying needs and isolating issues to be addressed through additional research. Thus, the question represents the first and foundational form of inquiry. While debates over the validity of racial categories are an important scientific issue (Helms et al., 2005), racial groupings remain a potent category for the purposes of policy and politics, and statistical descriptions of these groups serve to inform the debates.

Patterns

The second function the research focus shifts to is the identification of patterns: associations among variables or regularities that might be invoked as explanatory mechanisms to account for the phenomenon of interest (the word, explanatory, is employed here in its most common denotation). As noted in the previous section, the vast majority of studies of race and disability typify this approach. The identification of patterns encompasses an admittedly wide range of research questions, ranging from ethnographically-oriented descriptive studies (Devlieger & Albrecht, 2000) to direct tests of relationships predicted by formal models (Adams & Boscarino, 2005). In Devlieger and Albrecht's qualitative narrative of African Americans with disabilities in Chicago for example, they explored the disability identity in the context of inner-city life, noting common themes and relating them to identification. The intent of the study was to obtain a more simple description; the authors attempted to develop possible explanatory mechanisms for understanding the cultural basis of disability identity. Here, the descriptive question can be viewed as serving a hypothesis discovery function in which the raw data of description is used to identify associations among variables in an area of inquiry relatively unknown. The distinction between the gathering of facts and hypothesis discovery is subtle and arguably more conceptual than real since a subordinate objective for most fact-finding researchers is the identification of themes and the proposal of causal models. Indeed, all of the examples of descriptive research cited in the preceding section could reasonably be employed as examples here.

At the other end of the continuum are studies that are essentially exploratory but within the limits of a theoretical structure. In Adams and Boscarino's (2005) analysis of the relationship between race and posttraumatic stress disorder (PTSD), a widely

used stress process model was employed to frame the question and guide variable selection (Thoits, 1995). The model suggests that demographic or social resources can affect stress reactions, and subsequently predicts greater PTSD among minorities. Thus, the researcher brings to bear upon the exploration an a priori model and explanatory template. Adams and Boscarino employed past research and theoretical rationale to strategically constrain a potentially vast variable set. Theory helped to organize the inquiry; however, the adequacy of the theory was of only secondary interest. The authors did not bother to comment on the adequacy of the model, despite finding no differences between racial and ethnic groups with PTSD.

Theory Testing

The distinction between the theory-testing function and questions articulated in the framework of formal models is again one of degree rather than kind. The distinguishing feature is the centrality of theory to the study's purpose. Unfortunately, we cannot bring to bear a study on race and disability whose research question is defined in both construction and intent by an underlying theoretical framework. Although theoretically driven, theory-testing research is not necessarily bound to any specific research methodology; it is most closely associated with the experimental method. Deductive logic begins with testable propositions derived from theory, and facts are marshaled in direct tests of theoretical expectations. This is the paradigm of the physical sciences so often held as the exemplar for social inquiry. The relationship between experimental logic and the theory-testing functions of research is a close one because both are essentially reductionist and explanatory in character. Ironically, it is Hernandez's (2005) qualitative study of disability identity among young men with acquired spinal cord injury that comes closest to a theorytesting question. Organized around Gill's (1997) model of disability identity development, Hernandez identified in her findings support for Gill's model as well as points of inconsistencies.

Summary: Functions Served by Research Questions

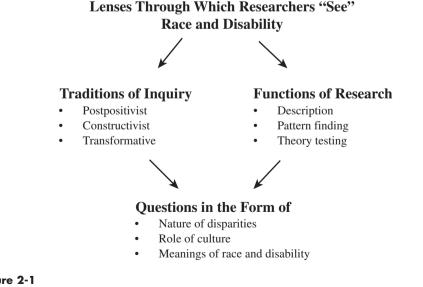
The purpose of this brief discussion is to make explicit what should be apparent from even casual inspection of the literature on disability and race, that research serves multiple and equally valuable functions. No doubt, the vast majority of scholars engaged in the field would agree. It is not a new or radical idea that inquiry has many forms and basic assumptions. The point of the foregoing discussion is not to denigrate or promote one approach over the other. Rather, researchers must carefully consider the purposes of the inquiry and connect them in an optimal manner to the different ways of knowing represented in different methodological approaches.

THE CONSTRUCTION OF QUESTIONS AROUND DISABILITY AND RACE

Both disability and race are contested concepts (Fujiura & Rutkowski-Kmitta, 2001; Omi, 2001); their intersection certainly overlays nuance onto complexity. The range of relevant domains and disciplines is daunting. In the absence of disciplinary boundaries, one is confronted with the task of connecting ideas across multiple domains of inquiry, each operating within its own conceptual framework. The utility of race in research remains embroiled in controversy, most notably in terms of its relationship to health and medicine (Anderson & Nickerson, 2005; Freeman, 1998; Lee, Mountain, & Koenig, 2001). The essential critique revolves around the disjuncture between public policy and the underlying biology of race, which suggests the lack of biological utility in race groupings. There are, of course, significant medical and health status disparities across racial lines, and virtually all critics of race as a basis of classification acknowledge these differences. The fact that race exists as a social rather than a biological construct does not lessen the reality of how it articulates with the basic indices of well-being in American society (Omi). Minow's (1990) reference to the "dilemma of difference" is relevant to our discussion here. Attention to the construct of race may facilitate movement toward equity or result in greater stigmatization, and thus the "racialization" of research is not to be taken lightly. Great thought must be given to the conceptual construction of research. The design and analysis of studies using racial groupings can be relatively straightforward, but the real challenge is in how the interpretations are managed.

How have researchers approached the nexus of race with disability? Employing a concept mapping approach (Trochim, 1989), we evaluated published articles incorporating the themes of race and disability from the fields of rehabilitation, education, history, cultural studies, public health, and medicine, among others. Excluded from consideration was a very large body of research in which race was included as a variable but was incidental to the core purpose of the research. Although racial groupings often figure prominently in these types of analyses, the inclusion of racial or ethnic groups was primarily to assess generalization (Clark, Stump, & Wolinsky, 1997; Jaffee et al., 2005) or to control for potential confounds related to racial status. Concept mapping is a general approach to the generation and organization of a topic or construct rather than a specific set of techniques (Trochim, 2001); for our purposes the mapping was based on an iterative series of structured evaluations of studies. Each review involved developing a label describing: (a) the study function, (b) how the author(s) conceptualized the nexus of race and disability in the study's research question, and (c) the tradition of inquiry represented in the study methodology. For some studies, discussion was required to reach consensus on the label. Labels were revised where necessary when subsequent reviews revealed new perspectives, and preliminary pictorial representations, or maps, were drawn identifying each of the labels and their hypothesized interrelationships. A final map was arrived at relatively quickly and subsequent reviews were employed to challenge the adequacy of the map as a classification tool (see Figure 2-1). The intent was not to exhaustively review the literature but rather to identify a comprehensive taxonomy to describe the construction of research questions. Each study was evaluated on the basis of this question: How do the investigators construct the nexus of race and disability in their research questions? In effect, research questions represent our raw data.

Three core constructions were identified through which the interaction of race and disability is interrogated: (a) What is the nature of disparity?; (b) What is the role of culture?; and (c) What is the meaning of race and disability? Within each of these broad lines of inquiry, questions cluster around a larger number of research subthemes. The identification and analysis of disparities was the dominant basis for research and includes the group comparison studies and meditational research described in the foregoing sections. Culture is an admittedly broad construct and includes such diverse efforts as evaluations of culturally competent behaviors and attitudes as they relate to access, and range from studies of individuals to entire



systems. A third variant is a hybrid category and represents a broad class of questions seeking to better contextualize the nexus of race and disability through the lens of critical social analysis or phenomenology. Phenomenological studies fall into one of three lines of research that look at self-identity or the disability experience as mediated by cultural consciousness.

The review now turns to an analysis of each of the themes.

The Nature of Disparity

The study of differences across groups defined by race or ethnicity is far and away the largest body of research in disability and race. While there are numerous variations, all studies are constructed on the core logic that differences between racial and ethnic groups must be identified to be corrected, or that the differences serve as explanations for other indicators of disparity. It should not be surprising that much of the research on race and disability is represented within this general class. As was noted in the preceding review of race and disability research, social constructions of civil rights and equality have framed the empirical enterprise throughout the latter half of the 20th century. A principal dynamic of society, in particular American society, are the interchanges between groups formed by the demographics of gender, class, geography, and race, among other status variables. Three basic lines of inquiry emerged from our review of the disparity literature and are organized around the themes of: (a) descriptions of status variable differences, (b) differences in access, and (c) mediators of disparity. One of the most common forms of inquiry is organized around the systematic documentation of differences between racial and ethnic groups on basic status variables, which account for the dominance of the group comparison studies described earlier. Disparity research can be viewed as an ongoing effort to find *real* differences on some indicator—employment status, health, identity, etc. The fundamental challenge in formulating questions about group differences is that racial and ethnic status carries conceptual baggage. Observed differences may be attributable not to the racial or ethnic groupings but to other characteristics such as educational or economic differences that are collateral to group membership. Thus, much of the work on disparities can be summarized as the identification of differences in status, access, and other dynamics with the critical caveat. This caveat, expressed through covariates and controls, is race and ethnicity-related differences at root may not be racially or ethnically based but rather reflect other differences associated with race at this time in this society (e.g. socioeconomic differences). What explains the persistence of these comparisons across racial groups in light of the "superficial differences" that race represents (Pasamanick & Knobloch, 1957)? We suspect that race per se, is not the point of the research, but rather the need to draw attention to the continued existence of educational, economic, vocational, housing, health service access, and other inequities linked to minority status.

The Role of Culture

Culture and its corollary, competence, define an enormous agenda for the field because they reflect not just a constituency of people, but skills, attitudes, policies, statutes, and practice (Roberts et al., 1990). A casual review of materials related to race, ethnicity, and disability will reveal nearly ubiquitous references to culture in various flavors: cultural diversity, cultural pluralism, culture and diversity, cultural competence, cultural sensitivity, multiculturalism, and transculturalism, among other flavors of culture. The succinct and understated caveat of Triandis and Suh (2002) is heeded here: "the conceptualization of culture is by no means a simple matter" (p. 135). We will not venture into the analysis of the concept of culture. Rather, we will focus superficially on applications of the concept, however defined, in the construction of research questions.

The primary line of inquiry emerging from our review of the interrogation of culture in the race and disability literature was the query about culture as an explanatory variable. Invoking culture as an explanatory variable is actually one of the oldest applications in race and disability research. The debates over diagnosis and assessment that were linked to the series of court cases in the early 1970s were challenges regarding cultural biases in educational placement tests: Diana v. State Board of Education (1970), Larry P. v. Riles (1971), PASE v. Hannon (1980), and Marshall et al. v. Georgia (1984), among others. The issue of bias, or unfair assessment, has been evaluated in terms of cultural effects, linguistic barriers, and class bias, and the debate continues across education, health services, rehabilitation, and other related fields (Clark et al., 1997; Harry, 1994; Kilbourne, Haas, Mulsant, Bauer, & Pincus, 2004; Parker & Philp, 2004). The focus of these questions was never simply about disparities in the accuracy of assessment but about the intersection of disability and culture and thus the validity of our disability conceptions (Guskin & Spicker, 1968; Kirk, 1964). Harry's analysis began with consideration of bias in assessment and ended in a discussion of strands that "combine into a complex and mutually inextricable force to place poor and, in particular, minority students at a disadvantage" (p. 65). Other examples of the use of culture variables as an explanatory variable have been in studies of the Black church (King, 1998), health perceptions (Silverman et al., 2000), pain (Edwards et al., 2005), and quality of life (Brown, McCauley, Levin, Contant, & Boake, 2004). A large number of investigations falling within the theme of cultural investigations involve questions focused on the role of cultural competence. As commonly applied in the literature, studies have focused on the roles that knowledge, behaviors, attitudes, and other characteristics play in traditional service-oriented contexts. Studies range from evaluations of individual competencies (Alston & McCowan, 1994; Nufer, Rosenberg, & Smith, 1998; Rosenthal, Wong, Moore Blalock, & Delambo, 2004) to evaluations of the competencies of entire systems (Alston, 2004; Pugach & Seidl, 1996; Sapon-Shevin & Zollers, 1999; Whaley, 2004).

The study of disability in a historical or cross-national context has long been used by scholars as a tool for interrogating various aspects of culture and, in like fashion, culture is used to frame questions about the intersections of race and disability (Edgerton, 1968; Manion & Bersani, 1987). To the extent that race and ethnicity are merely visible proxies for the more substantive differences represented in cultural differences, culture as an explanatory variable is an obvious and potent avenue of study.

The Meaning of Race and Disability

There is little question that the nexus of race and disability is undeveloped and little understood. In Kuhn's (1970) paradigmatic perspective, paradigms define the problems and methods of a research field. A mature paradigm would be characterized by commonly accepted theories, measurements, and procedures. According to Kuhn, paradigms evolve in subtle ways, often through minor changes in the language of scientific communities, in the framing of problems, and in the selection of phenomenon to study. In this section, we include research efforts focused on expanding the boundaries of our language about the study of race and disabilities. Like the preceding areas we reviewed, this third thrust of inquiry is not bounded by discipline or methodology. Studies tend to come from the transformative inquiry tradition since the work is, by definition, an attempt to challenge the status quo. In the same manner that Ferri and Connor (2005) asserted that special education was a form of institutional control for minorities, Molina's (2006) study of Mexican immigration in the early 20th century asks us to "blur the boundaries between the categories of race and disability" in the study of marginalized groups." (p. 33) Other forms of inquiry are represented as well. Dossa's (2005) case study of Mehrun, a Ugandan refugee with polio, is an example of a constructivist question that directly expands the boundaries of the existing paradigms of disability, gender, and race identity. In assuming the vantage point of Mehrun, the investigator describes these intersecting identities in the course of daily life. Identities converge in some contexts but are separated in others, and Dossa argues that organizing paradigms predicated on only one identity cannot inform her daily reality. Fujiura (2000) and Block, Balcazar, & Keys (2002), working from a more traditional social science perspective, argue for a reframing of race and disability issues into one of economic inequity and political power.

Summary: The Objects of Our Knowing

The preceding review, simplified as it is, provides some context for our exploration of the epistemology of the race and disability question. Each of these threads of inquiry touch upon core dynamics in the basis of our knowing: the exploration of inequity via identification of disparities, of systems of belief and behavior that mediate group differences, or the phenomenology of personal meanings.

SUMMARY AND CONCLUSION

In Burke's (1935) wide-ranging analysis of human communication, he noted that "a way of seeing is always a way of not seeing" (p. 70). As applied to our topic, the quote serves as a cautionary note for academics where success requires specialization and the disciplines are often divided along traditions of inquiry. What should be apparent from the preceding review is that while many investigators study race and disability, they do so in different ways and with different questions, often isolated from each other.

Three thematic elements have been emphasized in this review: (a) the diversity of forms of inquiry used in race and disability research, and the subtle bias toward reductionist questions; (b) the diversity of research functions; and (c) the complexity and expansiveness of questions related to the nexus of race and disability. What does this review reveal for the researcher planning to contribute to the extant body of work? The review reveals that disability and race are lodged in the interaction of virtually all spheres of human experience and activity; one does not readily compartmentalize such phenomenon. The circuitous route of our review across traditions of inquiry, functions, and questions encompasses everything from the social and political, to the physical environment and the psychology of experience. This kind of route serves as a cautionary note that there are no simple methods for characterizing this research. With respect to method, function, and question, we advocate no approach over another and set no topical priorities. All efforts are complementary. From each form of question a different piece of the portrait of the phenomenon is revealed; the intersection of race and disability will be best reconstructed through a combination of different perspectives. The experimental comparison of interventions across groups formed by race cannot be disentangled from a critical analysis of federal employment and income policies, or from the neighborhood the individuals live in, or from the meanings and experiences of the individuals as they navigate an often indifferent or hostile culture.

The central issue is to carefully frame the question to achieve the research goal, while remaining fully cognizant of the strengths and limits of any given question. The manner of the interactions between race and disability and the ways in which they are relevant remain very much a matter of debate and considerable mystery. The lesson of the short history of race and disability research is that, while we all understand in very general terms the profound influence of race, we truly do not understand its consequences for disability (Fujiura, 2000). We must be open to its consequences, many of them as yet unknown, and look deeply into its construction within our research paradigms. To paraphrase Burke (1935), do not be blinded by "ways of not seeing" (p. 70). A researcher's task is to appreciate the limitations of method—the distortions and incomplete images yielded by different lines of inquiry—and to focus on the very difficult challenge of using these images to illuminate the larger reality of race and disability.

REFERENCES

- Adams, R. E., & Boscarino, J. A. (2005). Differences in mental health outcomes among Whites, African Americans, and Hispanics following a community disaster. *Psychiatry*, *68*(3), 250–265.
- Alston, R. J. (2004). African Americans with disabilities and the Social Security Administration's return-to-work incentives. *Journal of Disability Policy Studies*, 14(4), 216–221.
- Alston, R. J., & McCowan, C. J. (1994). Aptitude assessment and African American clients: The interplay between culture and psychometrics in rehabilitation. *Journal of Rehabilitation*, 60(1), 41–46.
- Anderson, N. B., & Nickerson, K. J. (2005). Genes, race, and psychology in the genome era: An introduction. *The American Psychologist*, 60(1), 5–8.
- Balcazar, F. E., Garate-Serafini, T. J., & Keys, C. B. (2004). The need for action when conducting intervention research: The multiple roles of community psychologists. *American Journal of Community Psychology*, 33(3), 243–252.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
- Batchelder, A. B. (1966). The economics of poverty. New York: John Wiley & Sons.
- Block, P., Balcazar, F. E., & Keys, C. B. (2002). Race, poverty and disability: Three strikes and you're out! Or are you? *Social Policy*, 33(1), 34–38.
- Bound, J., Burkhauser, R. V., & Nichols, A. (2001). *Tracking the household income of SSDI and SSI applicants*. Ann Arbor: Michigan Retirement Research Center, University of Michigan.
- Brown, S. A., McCauley, S. R., Levin, H. S., Contant, C., & Boake, C. (2004). Perception of health and quality of life in minorities after mild-to-moderate traumatic brain injury. *Applied Neuropsychology*, 11(1), 54–64.

Burke, K. (1935). Permanence and change: an anatomy of purpose. New York: New Republic Press.

- Campbell, D. T., & Stanley, J. C. (1963). *Experimental and quasi-experimental designs for research on teaching.* Chicago: Rand McNally.
- Capella, M. E. (2002). Inequities in the VR system: Do they still exist? *Rehabilitation Counseling Bulletin*, 45(3), 143.
- Clark, D. O., Stump, T. E., & Wolinsky, F. D. (1997). A race- and gender-specific replication of five dimensions of functional limitation and disability. *Journal of Aging and Health*, 9(1), 28–42.
- Devlieger, P. J., & Albrecht, G. L. (2000). Your experience is not my experience: The concept and experience of disability on Chicago's near west side. *Journal of Disability Policy Studies*, 11(1), 51–60.
- Dewey, J. (1931). Social science and social control. New Republic, 67, 276-277.
- Dossa, P. (2005). Racialized bodies, disabling worlds "they [service providers] always saw me as a client, not as a worker." *Social Science & Medicine*, 60(11), 2527–2536.
- Edgerton, R. B. (1968). Anthropology and mental retardation: A plea for the comparative study of incompetence. In H. J. Prehm, L. A. Hamerlynck & J. E. Crosson (Eds.), *Behavioral research in mental retardation* (Monograph No. 1). Eugene: University of Oregon Press.
- Edwards, R. R., Moric, M., Husfeldt, B., Buvanendran, A., & Ivankovich, O. (2005). Ethnic similarities and differences in the chronic pain experience: A comparison of African American, Hispanic, and White patients. *Pain Medicine*, *6*(1), 88–98.

- Ferri, B. A., & Connor, D. J. (2005). Tools of exclusion: Race, disability, and (re)segregated education. *Teachers College Record*, 107(3), 453–474.
- Freeman, H. P. (1998). The meaning of race in science—considerations for cancer research. *Cancer*, 82(1), 219–225.
- Freire, P. (1970). Pedagogy of the oppressed (M. B. Ramos, Trans.). New York: Continuum.
- Fujiura, G. T. (2000). The implications of emerging demographics: A commentary on the meaning of race and income inequity to disability policy. *Journal of Disability Policy Studies*, 11(2), 66–75.
- Fujiura, G. T., & Rutkowski-Kmitta, V. (2001). Counting disability. In G. Albrecht, K. Seelman, & M. Bury (Eds.), *Handbook of disability studies* (pp. 69–96). Thousand Oaks, CA: Sage.
- Fujiura, G. T., & Yamaki, K. (2000). Trends in demography of childhood poverty and disability. Exceptional Children, 66(2), 187–99.
- Furner, S. E., Giloth, B. E., Arguelles, L., Miles, T. P., & Goldberg, J. H. (2004). A co-twin control study of physical function in elderly African American women. *Journal of Aging and Health*, 16(1), 28–43.
- Gage, N. L. (1989). The paradigm wars and their aftermath: A "historical" sketch of research on teaching since 1989. *Educational Researcher*, *18*(7), 4–10.
- Giesen, J. M., Cavenaugh, B. S., & Sansing, W. K. (2004). Access to vocational rehabilitation: The impact of race and ethnicity. *Journal of Visual Impairment & Blindness*, 98(7), 410–419.
- Gill, C. J. (1997). Four types of integration in disability identity development. *Journal of Vocational Rehabilitation*, 9, 39–46.
- Guskin, S. L., & Spicker, H. H. (1968). Educational research in mental retardation. In N. R. Ellis (Ed.), *International review of research in mental retardation* (pp. 217–278). New York: Academic Press.
- Harry, B. (1994). The disproportionate representation of minority students in special education: Theories and recommendations. (Project FORUM, Final Report). Alexandria, VA: National Association of State Directors of Special Education. (ERIC Document Reproduction Service No. ED374637)
- Helms, J. E., Jernigan, M., & Mascher, J. (2005). The meaning of race in psychology and how to change it: A methodological perspective. *The American Psychologist*, 60(1), 27–36.
- Hernandez, B. (2005). A voice in the chorus: Perspectives of young men of color on their disabilities, identities, and peer-mentors. *Disability & Society*, 20, 117–133.
- Hosp, J. L., & Reschly, D. J. (2002). Predictors of restrictiveness of placement for African-American and Caucasian students. *Exceptional Children*, 68(2), 225–238.
- Jaffee, K. D., Liu, G. C., Canty-Mitchell, J., Qi, R. A., Austin, J., & Swigonski, N. (2005). Race, urban community stressors, and behavioral and emotional problems of children with special health care needs. *Psychiatric Services*, 56(1), 63–69.
- Kilbourne, A. M., Haas, G. L., Mulsant, B. H., Bauer, M. S., & Pincus, H. A. (2004). Concurrent psychiatric diagnoses by age and race among persons with bipolar disorder. *Psychiatric Services*, 55(8), 931–933.
- King, S., Teplicky, R., King, G., & Rosenbaum, P. (2004). Family-centered service for children with cerebral palsy and their families: A review of the literature. *Seminars in Pediatric Neurology*, 11(1), 78–86.
- King, S. V. (1998). The beam in thine own eye: Disability and the Black church. *Western Journal* of Black Studies, 22(1), 37.

- Kirk, S. A. (1964). Research in education. In H. A. Stevens & R. Heber (Eds.), *Mental retardation: A review of research* (pp. 57–99). Chicago: University of Chicago Press.
- Krause, J. S., Broderick, L. E., Saladin, L. K., & Broyles, J. (2006). Racial disparities in health outcomes after spinal cord injury: Mediating effects of education and income. *Journal of Spinal Cord Medicine*, 29(1), 17–25.
- Kuhn, T. S. (1970). The structure of scientific revolutions (2nd ed.). Chicago: University of Chicago Press.
- Lee, S. S., Mountain, J., & Koenig, B. A. (2001). The meanings of "race" in the new genomics: Implications for health disparities research. *Yale Journal of Health Policy, Law, and Ethics*, 1, 33–75.
- Lieberson, S. (1985). Making it count: The improvement of social research and theory. Berkeley: University of California Press.
- Lustig, D. C., & Strauser, D. (2004). Employee benefits for individuals with disabilities: The effect of race and gender. *Journal of Rehabilitation*, 70(2), 38–46.
- Manion, M. L., & Bersani, H. A. (1987). Mental retardation as a western sociological construct: A cross-cultural analysis. *Disability, Handicap and Society, 2(3), 231–45.*
- Manton, K. G., & Gu, X. (2001). Changes in the prevalence of chronic disability in the United States Black and Nonblack population above age 65 from 1982 to 1999. *Proceedings of the National Academy of Sciences, USA, 98(11), 6354–6359.*
- Marrie, R. A., Cutter, G., Tyry, T., Vollmer, T., & Campagnolo, D. (2006). Does multiple sclerosisassociated disability differ between races? *Neurology*, *66*(8), 1235–1240.
- Meade, M. A., Lewis, A., Jackson, M. N., & Hess, D. W. (2004). Race, employment, and spinal cord injury. Archives of Physical Medicine and Rehabilitation, 85(11), 1782–1792.
- Mertens, D. M. (2005). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (2nd ed.). Thousand Oaks, CA: Sage.
- Minow, M. (1990). *Making all the difference: Inclusion, exclusion, and American law.* Ithaca, NY: Cornell University Press.
- Molina, N. (2006). Medicalizing the Mexican: Immigration, race, and disability in the earlytwentieth-century United States. *Radical History Review*, 2006(94), 22–37.
- Moore, C. L., Feist-Price, S., & Alston, R. J. (2002). VR services for persons with severe/ profound mental retardation: Does race matter? *Rehabilitation Counseling Bulletin*, 45(3), 162–67.
- Nufer, Y., Rosenberg, H., & Smith, D. H. (1998). Consumer and case manager perceptions of important case manager characteristics. *Journal of Rehabilitation*, 64(4), 40–46.
- Omi, M. A. (2001). The changing meaning of race. In N. J. Smelser, W. J. Wilson, & F. Mitchell (Eds.), *America becoming: Racial trends and their consequences* (Vol. 1, pp 243–263). Washington, DC: National Academies Press. Parker, C., & Philp, I. (2004). Screening for cognitive impairment among older people in Black and minority ethnic groups. *Age and Ageing*, 33(5), 447–452.
- Pasamanick, B., & Knobloch, H. (1957). Race, complications of pregnancy, and neuropsychiatric disorder. *Social Problems*, 5(3), 267–278.
- Pugach, M. C., & Seidl, B. L. (1996). Deconstructing the diversity-disability connection. *Contemporary Education*, 68(1), 5–8.
- Richardson, J., Anderson, T., Flaherty, J., & Bell, C. (2003). The quality of mental health care for African Americans. *Culture, Medicine and Psychiatry*, *27*(4), 487–498.

- Roberts, R., Barclay-McLaughlin, G., Cleveland, J., Colston, W., Malach, R., Mulvey, L., et al. (1990). Workbook for developing culturally competent programs for families of children with special needs. Washington, DC: Georgetown University Child Development Center.
- Rosenthal, D. A., Wong, D., Moore Blalock, K., & Delambo, D. A. (2004). Effects of counselor race on racial stereotypes of rehabilitation counseling clients. *Disability and Rehabilitation*, 26(20), 1214–1220.
- Sapon-Shevin, M., & Zollers, N. J. (1999). Multicultural and disability agendas in teacher education: Preparing teachers for diversity. *International Journal of Leadership in Education*, 2(3), 165–90.
- Silverman, M., Smola, S., & Musa, D. (2000). The meaning of healthy and not healthy: Older African Americans and Whites with chronic illness. *Journal of Cross-Cultural Gerontology*, 15(2), 139–156.
- Taylor, W. C., Baranowski, T., & Young, D. R. (1998). Physical activity interventions in lowincome, ethnic minority, and populations with disability. *American Journal of Preventive Medicine*, 15(4), 334–343.
- Taylor-Ritzler, T., Balcazar, F. E., Keys, C. B., Hayes, E., Garate-Serafini, T., & Espino, S. R. (2001). Promoting attainment of transition-related goals among low-income ethnic minority students with disabilities. *Career Development for Exceptional Individuals*, 24(2), 147–67.
- Thoits, P. A. (1995). Stress, coping, and social support processes: Where are we? What next? *Journal of Health and Social Behavior, Spec No.* 53, 53–79.
- Triandis, H. C., & Suh, E. M. (2002). Cultural influences on personality. Annual Review of Psychology, 53(1), 133–160.
- Trochim, W. M. K. (1989). An introduction to concept mapping for planning and evaluation. *Evaluation and Program Planning*, *12*(1), 1–16.
- Trochim, W. M. K. (2001). *The research methods knowledge base* (2nd ed.). Cincinnati, OH: Atomic Dog Publishing.
- Warren, P. R., Giesen, J. M., & Cavenaugh, B. S. (2004). Effects of race, gender, and other characteristics of legally blind consumers on homemaker closure. *Journal of Rehabilitation*, 70(4), 16–21.
- Whaley, A. L. (2004). Ethnicity/race, paranoia, and hospitalization for mental health problems among men. American Journal of Public Health, 94(1), 78–81.
- Wintersteen, M. B., Mensinger, J. L., & Diamond, G. S. (2005). Do gender and racial differences between patient and therapist affect therapeutic alliance and treatment retention in adolescents? *Professional Psychology: Research and Practice*, 36(4), 400–408.