

Social Class Disparities in Health and Education: Reducing Inequality by Applying a Sociocultural Self Model of Behavior

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The literature on social class disparities in health and education contains 2 underlying, yet often opposed, models of behavior: the individual model and the structural model. These models refer to largely unacknowledged assumptions about the sources of human behavior that are foundational to research and interventions. Our review and theoretical integration proposes that, in contrast to how the 2 models are typically represented, they are not opposed, but instead they are complementary sets of understandings that inform and extend each other. Further, we elaborate the theoretical rationale and predictions for a third model: the *sociocultural self* model of behavior. This model incorporates and extends key tenets of the individual and structural models. First, the sociocultural self model conceptualizes individual characteristics (e.g., skills) and structural conditions (e.g., access to resources) as interdependent forces that mutually constitute each other and that are best understood together. Second, the sociocultural self model recognizes that both individual characteristics and structural conditions indirectly influence behavior through the selves that emerge in the situation. These selves are malleable psychological states that are a product of the ongoing mutual constitution of individuals and structures and serve to guide people's behavior by systematically shaping how people construe situations. The theoretical foundation of the sociocultural self model lays the groundwork for a more complete understanding of behavior and provides new tools for developing interventions that will reduce social class disparities in health and education. The model predicts that intervention efforts will be more effective at producing sustained behavior change when (a) current selves are congruent, rather than incongruent, with the desired behavior and (b) individual characteristics and structural conditions provide ongoing support for the selves that are necessary to support the desired behavior.

Keywords: social class, inequality, health, education, intervention

For more than half a century, the underlying causes of social class disparities in both health and education have been the source of fierce public debate. Why and how do these persistent inequalities develop? What is the underlying cause? Is it possible to bridge the gap between America's richest and poorest citizens? And, if so, what is the best way to do so? Both social scientists and practitioners in health and education have grappled with these challenging questions. Despite a large and growing body of interdisciplinary research on social class dis-

parities, the answers to these questions about the roots of inequality are surprisingly unclear, and effective interventions remain few and far between (Adler & Rehkopf, 2008; Adler & Snibbe, 2003; Elo, 2009; Kitagawa & Hauser, 1973; Marmot & Shipley, 1996).

We propose that one barrier to effectively addressing social class disparities in health and education is the unresolved clash between two models of human behavior—what we refer to as the individual model and the structural model. The term *model of behavior* refers to assumptions about the sources of human behavior that are rarely explicitly identified or acknowledged but that are foundational to research and to interventions.

For example, a pamphlet produced by the American Psychological Society stated the following about health inequality:

Seven of the 10 leading causes of death have aspects that can be modified by doing the right thing; that is, by making healthy choices about our own behavior. This modifiable risk offers the best opportunity to prevent and control chronic diseases. We know, for example, that stress, smoking, poor diet, obesity, and lack of exercise can contribute to heart disease and cancer, and that infection by the AIDS-causing HIV often occurs as a result of behavioral choices. (American Psychological Society, 1996, p. 5)

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This statement claims that most chronic, life-threatening diseases are the result of people's behavioral choices. In this example, the poor decision-making skills of the individual are ultimately viewed as the source of health problems. This example is emblematic of what we refer to as the *individual* model of behavior, which assumes that the characteristics or attributes (e.g., traits, skills, abilities, motives) of individual actors are the primary source of behavior. These individual characteristics can be seen as relatively fixed, innate properties of individuals (e.g., genes) or as malleable and emerging from the environment (e.g., language skills). For example, high academic achievement could be seen as a product of individual characteristics like well-developed language skills and/or high levels of self-regulation. Research guided by the individual model of behavior identifies the types of individual characteristics (e.g., low self-efficacy) that lead to behaviors that contribute to social class disparities in health and education. Interventions informed by this model of behavior often teach people to develop the skills or characteristics needed to improve their behavior.

This focus on individual characteristics or skills that typifies the individual model, however, is not the only way to explain behavior. Another prominent explanation that guides the literature on social class disparities in health and education is what we refer to as the structural model. Consider the following statement from U.S. Senator Paul Wellstone, outlining how to eliminate educational inequality:

We cannot close the achievement gap until we close the gap in investment between poor and rich schools no matter how "motivated" some students are. We know what these key investments are: quality teaching, parental involvement, and early childhood education, to name just a few. But instead of doing what we know will work, and instead of taking responsibility as policy makers to invest in improving students' lives, we place the responsibility squarely on children. (S. Res. 460, 2001, p. 2886)

In stark contrast to the individual model, this statement claims that academic achievement is not the product of individual characteristics (e.g., motivation) but rather stems from features of one's environment (e.g., the conditions of the school). This view is emblematic of what we refer to as the *structural* model of behavior, which assumes that the structural conditions of people's worlds are the primary source of behavior. The term *structure* refers to the material resources (e.g., money, healthy food, quality health care) or environmental conditions (e.g., amount of pollution) that are associated with one's position in the social class hierarchy. The structural model, therefore, assumes that environments with the "right" characteristics (e.g., access to high-quality schools and safe neighborhoods) produce desirable behavior and that environments with the "wrong" characteristics (e.g., access to low-quality schools and dangerous neighborhoods) produce undesirable behavior. Research guided by the structural model seeks to identify the specific environmental conditions (e.g., poorly paid, underprepared teachers; large class sizes) that lead to the types of behaviors that contribute to inequality (e.g., academic disengagement). Interventions informed by this model tend to focus on changing behavior by improving the environmental conditions of people in low social class or socioeconomic (SES) contexts.¹

These dueling models of behavior have important consequences. In terms of research, the individual and structural models are

analytically useful. They serve as blueprints that facilitate the research process—they point to which questions to ask, identify the appropriate research methods to use, and suggest how to interpret the results. These models also distribute the labor, suggesting who is responsible for answering the questions of interest. For example, psychologists more often focus on the individual factors (e.g., psychological tendencies such as perceived control) and sociologists more often focus on the structural factors (e.g., material resources such as access to health care) that contribute to unequal outcomes in health and education.

Despite their usefulness, these models can also limit research, theory, and intervention efforts. By focusing on individual characteristics, research classified as *individual* is generally inattentive to the many important structural factors that also contribute to inequality. For example, in the context of health, the individual model seeks to change behavior by providing people with the skills (e.g., decision making) or psychological tendencies (e.g., sense of control) needed to engage in healthy behavior. By itself, however, this model does not explain why the presence of a given psychological tendency (e.g., perceived control) is more likely to produce desirable behavior in some sociocultural contexts than in others (e.g., in middle-class but not working-class contexts). On the other hand, research classified as *structural* does not fully attend to the individual characteristics (e.g., having the skills to enact the desired behavior) that also contribute to inequality. The structural model seeks to change behavior by providing the environmental conditions (e.g., access to healthy food) required to engage in healthy behavior. By itself, however, this model does not explain why people in different sociocultural contexts interpret and respond differently to the "same" structures.

Toward the Sociocultural Self Model of Behavior

Given that both individual and structural models fall short in explaining inequality and providing effective tools for intervention, the current article suggests the need for a third model: the *sociocultural self model of behavior*. Building on theories from health psychology (Adler & Stewart, 2009; Stokols, 1996), social and cultural psychology (Adams, 2012; Bandura, 1978; Bronfenbrenner, 1979; Bruner, 1991; Lewin, 1936; Markus & Hamedani, 2007; Penuel & Wertsch, 1995), and sociology (Ridgeway, 2006; Schooler, 1996; Sewell, 1992; Wilson, 2009), the sociocultural self model incorporates and extends key tenets of the individual and structural models. Central to the sociocultural self model is the understanding that individuals and structures are inseparable forces that influence each other in a bidirectional, ongoing cycle and that these forces are best analyzed together. This bidirectional cycle has been termed *mutual constitution* (Adams & Markus, 2004; Fiske, Kitayama, Markus, & Nisbett, 1998; Markus & Kitayama, 2003; Shweder, 1990). In one direction of this cycle, individuals' actions and psychological tendencies (e.g., attention,

¹ Throughout this article, we use the terms *social class* and *socioeconomic status* (SES) interchangeably to refer to a person's standing in the social hierarchy. Although social scientists disagree about the single best measure of social class, research has shown that a person's educational attainment, income, and/or occupation are all important indicators of the concept of social class (e.g., Davey Smith et al., 1998; Lareau & Conley, 2008).

perception, emotion, motivation) are influenced by the structures (e.g., material resources) that make up the sociocultural contexts that they inhabit over time. In the other direction, as individuals interact with their sociocultural contexts, they play an active role in reinforcing or changing the structures of those contexts (Adams, 2012; Markus & Kitayama, 2010). The sociocultural self model recognizes that both individual characteristics and structural conditions are situated in larger contexts, which reflect particular ecological, economic, political, and historical circumstances. The term *sociocultural context* refers to these larger, macro-level forces that ground the dynamic interaction of structural conditions and individual characteristics.

Furthermore, the sociocultural self model recognizes that both individual characteristics and structural conditions indirectly influence behavior through the socioculturally shaped selves that are relevant in a given situation. We use the terms *self* and *identity* interchangeably to refer to the “me” at the center of experience—the continually developing sense of awareness and agency that emerges through the ongoing process of the mutual constitution of individuals and structures (e.g., Markus, 2008; Markus & Kitayama, 2010; Oyserman & Markus, 1993).² Selves are highly malleable, reflect both conscious and unconscious associations and influences, shape how individuals construe or make sense of situations, and thereby systematically inform how individuals think, feel, and act in response to a given situation (see Figure 1). We describe selves as *socioculturally shaped* to acknowledge that selves are not stable or fixed characteristics of individuals but rather are malleable psychological states that emerge in response to the sociocultural contexts with which people have interacted over time, reflecting an ongoing blend of one’s own and others’ views of the individual.³

Attending to these sociocultural insights offers researchers and practitioners a more complete understanding of the sources of inequality and also provides the tools to design more effective interventions to reduce social class disparities in health and education. The sociocultural self model claims that the effectiveness of interventions that seek to change behavior (e.g., efforts to shift individual characteristics and structural conditions) will be moderated by the degree to which current selves (i.e., those that are relevant in the situation of interest) support the desired behavior. In particular, the model predicts that intervention efforts will be more effective at producing sustained behavior change when (a) current selves are congruent rather than incongruent with the desired behavior (e.g., academic engagement) and (b) individual characteristics (e.g., academic skills) and structural conditions (e.g., high-quality schools) provide ongoing support for the selves (e.g., understanding of the self as a student) that are necessary to support the desired behavior.

By focusing on the self as the product of the mutual constitution of individuals and structures over time, the sociocultural self model addresses questions that cannot be explained by the individual model or the structural model alone. For example, this emerging model explains why having a given psychological characteristic (e.g., self-regulation) is more effective (i.e., produces desirable behavior) in some sociocultural contexts than in others (e.g., middle-class as opposed to working-class) and why people who have inhabited different sociocultural contexts over time respond differently to the same structural conditions (e.g., why only some people adhere to a prescribed regime for a health

condition). By answering these questions, the sociocultural self model has the potential to bridge the gap between traditional explanations of inequality and, in doing so, to generate more integrative research efforts and effective interventions.

Article Goals

The overarching goal in this article is to review two traditional approaches for explaining inequality—what we refer to here as the individual model and the structural model—and then to build on these models to develop the theoretical foundation for and outline the predictions of the third sociocultural self model. To achieve this goal, we first illuminate and describe the individual and structural models that underlie most of the research on social class disparities in health and education. To place these models in high relief, we present key examples of research that are representative of these models. We then describe a well-known, federally funded intervention for each model that illustrates how they are applied and the ways in which these models fall short. After reviewing these models, we then present the theoretical rationale for the sociocultural self model of behavior (see Figure 1 for theoretical model). To elaborate this model, we first explain the ways in which the sociocultural self model extends traditional approaches to inequality. Then, we discuss research examples that are moving in the direction of the sociocultural self model. Finally, we outline the predictions of this model and describe how it can be utilized in the context of interventions aimed at reducing social class disparities in health and education.

The Problem: Social Class Shapes Outcomes in Health and Education

The current article focuses on social class disparities in the domains of health and education because these disparities represent some of the most pressing societal problems today and have a vital impact on quality of life (Akin-Little & Little, 2008; Attewell & Newman, 2010; House, 2002; Ornstein, 2007; Siegrist & Marmot, 2004).⁴ In response to the ongoing societal significance of inequality in health and education, there is a large and growing literature in the social sciences that seeks to understand the sources of these disparities and to identify potential solutions. In terms of both health and education, social class—defined in

² Theorists use a family of overlapping terms for the nexus of the individual and structural: *self*, *self-concept*, *self-schema*, *self-construal*, *identity*, *personal identity*, *social identity*, and *agency*. Agency is the most general or global term and refers to acting in the world. Self is usually interchangeable with agency but is sometimes used to refer more specifically to who the person thinks or believes him- or herself to be. Identity is typically used when the emphasis is on how others (i.e., individuals or groups) influence the person. These terms are all similar in purpose.

³ In previous work these emerging states have been called working self-concept (Markus & Wurf, 1987).

⁴ The focus of this article is on social class disparities in health and education, but the basic tenets of the sociocultural self model of behavior also extend to other domains (e.g., employment, business, leadership, criminal justice) and to other social categories (e.g., race/ethnicity, gender, age, sexual orientation).

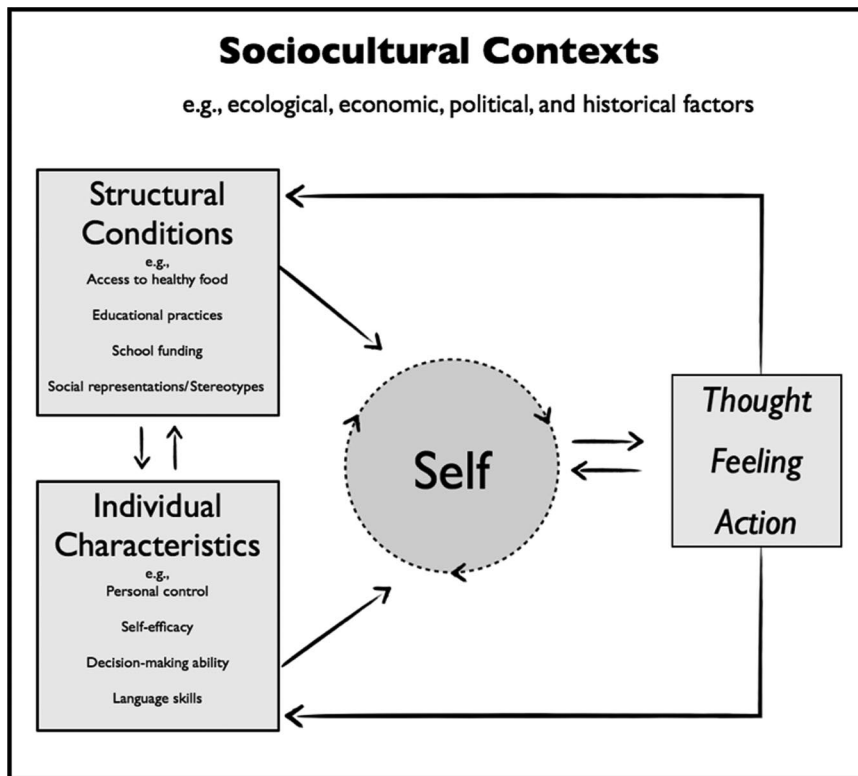


Figure 1. Sociocultural self model of behavior: Model of the mutual constitution of individuals and structures and the selves that emerge at their intersection. These socioculturally shaped selves are malleable psychological states that allow individuals to construe the situation and thereby guide patterns of thought, feeling, and action.

terms of education, occupation, or income⁵—has a powerful and lasting impact on individuals' life outcomes. With respect to health, social class predicts whether people lead happy, healthy, and productive lives or experience lives characterized by poor mental health and chronic diseases (e.g., Meara, Richards, & Cutler, 2008). For example, adults lower in social class status have higher rates of cancer, heart disease, hypertension, and upper respiratory disorders than do adults higher in social class status (Adler et al., 1994; Cohen et al., 2008; Lutsey et al., 2008; Marmot et al., 1991). Adults lower in social class status also have higher rates of infant mortality, pregnancy complications, and tuberculosis (Zapata, Rebolledo, Atalah, Newman, & King, 1992). Research demonstrates similar social class patterns for psychological well-being. Adults lower in social class status report lower subjective well-being (Johnson & Krueger, 2006; Lachman & Weaver, 1998) and higher rates of depression (Stansfeld, Head, & Marmot, 1998) and anxiety (Marmot, Ryff, Bumpass, Shipley, & Marks, 1997; Martinez & Richters, 1993; Mulatu & Schooler, 2002).

With respect to education, social class background is also one of the most powerful predictors of both educational attainment and academic performance (Brooks-Gunn & Duncan, 1997; Haveman & Wolfe, 1995; Sirin, 2005). Regardless of how social class is operationalized (e.g., education, income, or occupation), social class not only makes a difference for the educational opportunities available to students (e.g., quality of accessible schools) but also affects students' chances of success in school (Croizet, 2008; Croizet & Claire, 1998; Housel & Harvey, 2009; Pascarella, Pier-

son, Wolniak, & Terenzini, 2004). Even among students who have previously achieved equal grades and test scores, research shows that students from disadvantaged social class backgrounds are much less likely to finish high school, to attend a 4-year college, or to graduate from a 4-year college or university (Hochschild, 2003; Schooler, 2007).⁶ For example, one study found that students who have two parents without college degrees have a 9% chance of attending highly selective universities, whereas students who have two parents with college degrees have a 62% chance (Astin & Oseguera, 2004).

The Individual Model of Behavior

Research guided by the individual model of behavior views behavior as emerging from the characteristics or attributes of individuals, such as their values, beliefs, attitudes, motives, traits,

⁵ The research examples included in this review define social class or SES in a variety of ways. In our description of research examples, we maintain consistency with the terms utilized by the authors.

⁶ Students' social class is typically defined in terms of parents' level of educational attainment, type of occupation, or family household income.

or skills (see Table 1).⁷ In this article, we classify research as utilizing the individual model if it assumes that social class disparities in education and health are, first and foremost, a product of personal characteristics. For example, the individual model tends to examine how individuals' characteristics shape their behavior, rather than how their environment shapes their behavior.

To explain inequality, the individual model identifies social class differences in individuals' characteristics (e.g., differences in abilities or skills) and then links these individual differences to the behaviors that promote inequality in health and education. In many cases, research guided by the individual model recognizes the social contexts in which these individual characteristics develop. For example, some research acknowledges that individual characteristics can emerge through social processes (e.g., through parent-child interactions). Nevertheless, this research generally assumes that these individual characteristics (e.g., decision-making skills, self-regulation ability) are the primary or most important source of the behaviors that contribute to inequality. In the context of interventions, these findings can easily be misinterpreted. If research links individuals' characteristics to unequal outcomes in health or education, then practitioners may incorrectly assume that interventions that change individuals' characteristics (e.g., teaching people "decision-making" skills) will be sufficient to change the types of behavior that produce inequality. This focus on individual characteristics may also inadvertently lead to the blaming of people for negative life outcomes that are beyond their control (Adler & Stewart, 2009; Savani, Stephens, & Markus, 2011; Stephens & Levine, 2011).

In the next section, we present key examples of research that illustrate how the individual model explains social class disparities in education and health, and we describe an intervention that seeks to address these disparities. Then, we use these examples to highlight how the individual model falls short in terms of explaining the sources of inequality and designing effective interventions.

How the Individual Model Informs Research on Educational and Health Inequality

Why do people in low SES contexts experience negative outcomes in terms of both education and health? To explain the

Table 1
The Individual Model Applied to Social Class Disparities in Health and Education

| | |
|---------------------------|--|
| Key assumption | Behavior is a product of individuals' characteristics (e.g., attitudes, beliefs, and skills). |
| Solutions to inequality | Change individuals: people's psychological tendencies, skills, or traits (e.g., education or skills training programs). |
| Insufficient attention to | <ul style="list-style-type: none"> - Structures that afford and constrain behavior. - Mutual constitution of individuals and structures. - Self as a source of the culture-specific meanings that guide behavior. |

causes of educational inequality, research following the individual model first identifies the individual characteristics (e.g., high self-efficacy) or skills (e.g., high-level reading ability) that are common among high SES students but lacking among low SES students. This model then links these individual differences to academic performance. For example, the research described below assumes that low SES students do not perform up to their potential because they do not have the self-regulation skills or the language abilities that are known to promote learning and academic achievement.⁸ Likewise, in the context of health, research guided by the individual model suggests that low SES adults are unhealthy because they lack the decision-making skills or the sense of self-efficacy that would promote more healthy behavior.

Educational Inequality

Example 1: Self-regulation. One body of research suggests that social class disparities in educational outcomes are a product of differences in students' self-regulation abilities (Birch & Ladd, 1998; Eisenberg et al., 2001; Miech, Caspi, Moffitt, Wright, & Silva, 1999). Self-regulation is defined as the capacity of the individual to engage in desired behavior and avoid undesired behavior by changing his or her response to the environment (Baumeister & Vohs, 2007).

In one study, Miech, Essex, and Goldsmith (2001) examined whether social class differences in children's self-regulation skills can explain the lower levels of interpersonal adjustment observed among low SES students in school. The study assessed teachers' views of students' relationship quality, scholastic abilities, and symptoms of attention deficit/hyperactivity. Prior to kindergarten, mothers also reported their children's level of self-regulation. They found that lower levels of family SES, as indicated by parents' educational attainment and household income, predicted lower levels of self-regulation among children. These social class differences in self-regulation statistically explained the relationship between SES and interpersonal adjustment in school.

In a similar study, Howse, Lange, Farran, and Boyles (2003) followed kindergarteners for 3 years to examine how social class differences in self-regulation affected academic achievement. Self-regulation was measured by teachers' assessments of children's self-regulation and through self-report measures administered to the children. The children also completed a variety of achievement tests that evaluated their reading and math skills. They found,

⁷ Other researchers have referred to elements of this individual model as the "medical model" (Adler & Stewart, 2009) or the "behavior change" model (Stokols, 1996).

⁸ Some researchers see individual differences (attributes or behavior) as relatively fixed or established early on in life (e.g., genetic arguments), and others see them as largely influenced by the environment and relatively malleable. Research that falls on the fixed side of the spectrum is controversial and widely criticized. In particular, arguments that focus on genetic differences in cognitive ability between racial or socioeconomic groups (e.g., Herrnstein & Murray, 1994; Jensen, 1969) have been widely discredited and are flawed in their assumptions about the relationship between genes and behavior (e.g., Ehrlich & Feldman, 2003). Thus, we give these purely genetic arguments little attention and focus instead on research examples that are less controversial.

consistent with previous research, that low SES children were less able than high SES children to regulate their attention toward goal-related activities and that their reduced attention regulation abilities predicted lower achievement scores (Howse et al., 2003).

Example 2: Cognitive abilities. Another area of research suggests that social class disparities in education can be explained by differences in students' cognitive skills or abilities. One common line of reasoning is that low SES children experience worse academic outcomes because they have less developed language skills, which are viewed as essential for high levels of academic achievement (e.g., Bradley & Corwyn, 2002; Hart, Petrill, Deckard, & Thompson, 2007; Hoff-Ginsberg, 1991; Mercy & Steelman, 1982; Noble, McCandliss, & Farah, 2007).

One classic study (Hart & Risley, 1995), for example, examined the language skills of children from families characterized as professional, working-class, or on welfare. For a period of 2.5 years, the researchers conducted monthly home observations of the language use of 42 families across the socioeconomic spectrum. The children were 1 to 2 years old when the researchers began the observations and 3 years old when the observations ended. Hart and Risley found striking social class differences in children's exposure to language in the home. For example, in a single hour, children of professional parents were exposed to almost twice as many words (2,153 words) as children of working-class parents (1,251 words) and more than 3 times as many words as children of parents in poverty (616 words). They subsequently examined children's language development: At age 3, professional-class children had cumulative vocabularies of approximately 1,000 words, compared to 750 words for working-class children and 500 words for children living in poverty. Children's vocabulary use at age 3 subsequently predicted their scores on language development tests at ages 9 and 10 (e.g., vocabulary, listening, speaking, semantics, syntax).

Health Inequality

Example 1: Decision-making ability. Another area of research suggests that social class disparities in health can be explained by differences in decision-making ability. For example, Bruine de Bruin, Parker, and Fischhoff (2007), using the Adult Decision-Making Competence scale, found that people with lower levels of educational attainment—a key indicator of social class—have worse decision-making abilities than people with higher levels of educational attainment. They also found that individuals with lower decision-making abilities (i.e., those who are low SES) are more likely to experience the types of negative life events (e.g., breaking a bone) that often result from poor decisions. Bruine de Bruin et al. (2007) concluded that “teaching decision making may improve quality of life, especially in low-SES communities” (p. 948).

In a similar study, Peters, Baker, Dieckmann, Leon, and Collins (2010) examined the role of decision-making abilities in social class disparities in health. Reflecting the individual model of behavior, they argued that individuals who are more highly educated (i.e., an indicator of social class) develop stronger intellectual abilities (e.g., decision-making) and that the development of these abilities fosters healthy behaviors. To test their theory, Peters et al. conducted a field study in rural Ghana on the types of health-protective behaviors (e.g., using a condom) related to the

transmission of HIV/AIDS. In support of their theory, they found that individuals with higher levels of education had better decision-making skills and other cognitive abilities and that these individual differences explained the observed social class differences in health-related behavior (see also Goldman & Smith, 2002).

Example 2: Self-efficacy. Other research suggests that social class disparities in health can be explained by differences in individuals' levels of self-efficacy. Self-efficacy is defined as the belief that one is capable of achieving a particular goal or outcome (see Bandura, 1995). A wide range of studies have demonstrated that people from low SES contexts have lower levels of self-efficacy than people from high SES contexts (Figaro, Elasy, Be-Lue, Speroff, & Dittus, 2009; Grembowski et al., 1993) and that these differences in self-efficacy can affect the types of behaviors that influence health outcomes. For instance, lower levels of self-efficacy are associated with more unhealthy behaviors (Norman, Bennett, Smith, & Murphy, 1998; Peterson & Stunkard, 1989), lower rates of participation in preventative care (Seeman & Seeman, 1983), slower recovery from illness, and poorer overall health (Lachman, 1986; Langer & Rodin, 1976; Rodin, Timko, & Harris, 1985; Shannon et al., 1997).

For example, one longitudinal study (Barbareschi, Sanderman, Kempen, & Ranchor, 2008) focused on the role of self-efficacy in producing social class disparities in health. Barbareschi et al. conducted a baseline survey and a follow-up survey 2 months later with 221 older patients with coronary heart disease. They assessed SES, self-efficacy, and a variety of other health-related outcomes and found that SES—measured by an index of education, income, and occupational prestige—was associated both with lower levels of self-efficacy and with lower levels of physical functioning with respect to walking, getting dressed, and eating. These differences in self-efficacy, in turn, explained the relationship between adults' SES levels and their physical functioning.

In sum, these studies on self-regulation, language ability, decision-making ability, and self-efficacy reflect the individual model of behavior because they explain social class disparities in education and health by focusing on individual differences in abilities or skills. In these examples, individual differences were seen as the underlying or primary cause of social class differences in behavior (e.g., lower levels of academic achievement). Although this research often recognizes the environmental factors that influence the development of individuals' skills (e.g., self-regulation or language ability), the cause of social class disparities is still seen primarily as a product of individual differences in these abilities or skills. For example, although the research on language development recognizes the importance of children's environmental exposure to words, the underlying problem (e.g., poor academic achievement) is linked only to individuals' underdeveloped language skills or to parents' lack of effort. The role of structural factors such as differential access to high-quality schools or well-trained teachers is typically ignored.

The assumption that behavior is a product of individuals' abilities or skills, rather than material resources, is also evident in interventions. One of the best known individual-focused interventions in the United States is the federally funded drug education program, Drug Abuse Resistance Education.

How the Individual Model Informs Interventions: Drug Abuse Resistance Education

Drug Abuse Resistance Education (DARE) is currently used in all 50 states and in more than 50% of school districts in the United States. In this program, a highly trained police officer provides a lesson in a school classroom (from kindergarten through 12th grade) for an hour each week for 17 weeks. The curriculum is standardized, and the lessons are designed to teach students how to resist peer influences to experiment with drugs. A secondary goal is to provide students with information about drugs, build their self-esteem, and teach them stress management and decision-making skills. The program includes question and answer sessions, group discussion, workbook tasks, and some role-playing activities (Wysong, Aniskiewicz, & Wright, 1994). DARE assumes that providing information, building self-esteem or confidence, and fostering a sense of personal control will enable students to change their attitudes about drugs, improve their coping skills, and ultimately help them to resist drug use.

DARE costs between 1 and 1.3 billion dollars annually (Shepard, 2001), yet research has shown that the program is largely ineffective in achieving its goals. In a meta-analysis of eight methodologically rigorous evaluations of DARE programs, Ennett, Tobler, Ringwalt, and Flewelling (1994) found that DARE has small positive short-term effects (i.e., immediately after students participate) but is generally ineffective in changing long-term attitudes and behaviors. In one study, Clayton, Cattarello, and Johnstone (1996) examined the effects of randomly assigning schools either to receive DARE or to receive a drug education unit as a part of their health curriculum. Students were pretested prior to program delivery (6th grade), post-tested immediately after receiving the program, and tested again every year for 5 years (until 10th grade). Across the 5-year duration, no differences in rates of alcohol or drug use were found. In terms of attitudes towards drugs and self-reported ability to resist peer pressure, small improvements for the DARE groups were found in seventh grade, but the two groups had similar trajectories throughout the remaining time period (see also Birkeland, Murphy-Graham, & Weiss, 2005).

DARE assumes that resisting drug use requires changing individual characteristics. For example, DARE assumes that drug use is largely an individual decision based on personal knowledge, attitudes about drug use, and the social skills needed to resist peer pressure (Wysong, Aniskiewicz, & Wright, 1994). DARE further assumes that changing these individual characteristics is sufficient to enable students to resist drug use. Although individual attitudes and information about drugs are clearly important factors that can affect drug use, the sociocultural self model can help to explain why attention to individual factors alone is unlikely to be sufficient to produce sustained changes in behavior. We suggest that DARE may be ineffective, in part, because it does not fully attend to the two core features of the sociocultural self model of behavior: the principle of mutual constitution and attention to selves as a systematic source of the culture-specific meanings that guide behavior.

First, DARE assumes that resisting drugs requires teaching individual students the skills to stand up to and resist peer pressure. Although DARE considers the power of individuals to shape their contexts, it does not sufficiently recognize the other direction of

mutual constitution: how the structures of people's sociocultural contexts afford and constrain which behaviors are even possible. Drawing on the principle of mutual constitution, the sociocultural self model would recognize that people's actions (e.g., what they are able to do, as well as what they prefer to do) are shaped by the sociocultural contexts that they inhabit over time. For example, students in lower versus higher SES environments will have different degrees of exposure to drugs and different types of opportunities for taking them. As a result, people who live in environments where drug use is prevalent may find it harder to resist drug use by simply "saying no." Instead, a different set of intervention strategies—for example, decreasing students' exposure to situations where drug use is likely—may be more useful or effective.

Second, DARE assumes that drug use has the same meaning for all students and that students need to learn a uniform set of skills (e.g., confidence) to say no to drugs. In contrast, the sociocultural self model would recognize that people from different social class contexts would understand themselves in different ways and that these particular selves would shape how people understand what it means to take or to resist drugs. For example, individuals who live in environments where drug use is prevalent among people in their social groups may see drug use as a normal part of life or as a way to cope with life challenges. The meaning of drugs, in turn, influences the extent to which a given strategy for reducing drug use will be effective.

Implications of the Individual Model of Behavior

In the last section, we reviewed key examples of research that used the individual model of behavior to explain social class disparities in education and health and provided an example of a well-known intervention. These examples are all similar in their focus on individuals' characteristics as being the underlying causes of behavior. Informed by this model, a researcher might ask, "What characteristics of low SES students lead to the achievement gap?" or "What values of low SES adults are associated with diabetes?" As the research above illustrates, the answers to these questions are often that low SES individuals experience worse outcomes because they do not possess the "right" characteristics or skills to succeed. For example, one might find that low SES individuals underperform in school because they have fewer cognitive skills and lower levels of self-regulation and that low SES adults are unhealthy because they have poor decision-making abilities or low levels of self-efficacy.

Although the individual model of behavior sheds light on individual factors that contribute to inequality, this model falls short in fully explaining inequality and in designing effective interventions. As we argue above, the individual model falls short because it is too narrow in its focus. First, by focusing primarily on individuals' characteristics and skills, the individual model does not fully recognize the structures of the sociocultural context that afford or constrain behavior. That is, the individual model does not consider that people's differing social class contexts provide unequal opportunities to engage in the desired behavior or to develop (or maintain) particular abilities or skills—such as self-efficacy or self-regulation—that would foster the desired behavior. In other words, providing knowledge about proper nutrition or heightening the perception that individuals can take control of their diets are not likely to foster healthy eating habits if people do not have

opportunities for healthy eating—if healthy foods, such as fruits and vegetables, are not available in their environments. As a consequence, developing the “right” individual characteristics (e.g., perceived control) may not foster the desired behavior if the structures in the environment do not provide ongoing support for that behavior.

Second, the individual model of behavior does not fully recognize the socioculturally shaped selves that guide how people make sense of their experiences and, in turn, how these understandings shape people’s behavior. For example, in low SES environments that offer fewer opportunities for choice, control, or influence, people develop understandings of behavior that focus less on influencing the situation, enacting personal control, and being independent and instead focus more on adjusting to their environment and connecting with and responding to others (e.g., Stephens, Hamedani, Markus, Bergsiekler, & Eloul, 2009). An intervention that seeks to encourage healthy eating by emphasizing the importance of developing personal control (e.g., “take charge of your health”) may therefore be ineffective if the resulting individual characteristics (i.e., personal control) are not consistent with how people understand themselves. In other words, even if individuals develop the skills or abilities necessary to enact the desired behavior, these characteristics may be insufficient to change behavior if people’s current selves are not congruent with these characteristics or with the desired behavior (e.g., if messages in the environment communicate that “people like me” do not engage in this behavior).

The Structural Model of Behavior

Simply stated, the structural model views behavior primarily as a product of the conditions or characteristics of people’s environments. Although *structure* is difficult to define, most theorists agree that structure includes the material resources (e.g., money, school funding, healthy food, quality health care) that are associated with one’s position in the social hierarchy (Giddens, 1984; House, 1981; Ridgeway, 2006; Schooler, 1996; Sewell, 1992; Wilson, 2009). In this article, we adopt a similar definition, but we use the term even more broadly to include not only material resources but also the general characteristics or conditions of the environments to which individuals are exposed. This broad definition allows us to include research not only from sociology but also from psychology, education, epidemiology, and related disciplines. For example, in the context of education, the term *structure* could be used to refer to the quality and arrangement of the physical buildings in which students learn; the number of teachers, textbooks, and computers available per student; the quality of classroom equipment; the types of teaching practices employed; how schools are funded; the ways in which students from particular backgrounds are treated; teacher salaries and incentives; and the preparation and ongoing development of teachers and staff.

A primary assumption of the structural model is that behavior (e.g., eating healthy food) emerges primarily in response to the structural conditions (e.g., access to healthy food) of the environment. Accordingly, the structural model assumes that the presence of certain structural conditions (e.g., access to healthy food) encourages certain types of behaviors (e.g., eating healthy food), irrespective of individuals’ skills or characteristics (e.g., knowledge about healthy food; see Table 2). In this article, we classify

Table 2
The Structural Model Applied to Social Class Disparities in Health and Education

| | |
|---------------------------|---|
| Key assumption | Behavior is a product of environmental characteristics (e.g., access to material resources). |
| Solutions to inequality | Restructure environments: provide more opportunities and material resources (e.g., provide higher quality schools, access to healthy food). |
| Insufficient attention to | <ul style="list-style-type: none"> - Individual characteristics. - Mutual constitution of individuals and structures. - Self as a source of the culture-specific meanings that guide behavior. |

research as utilizing the structural model if it assumes that social class disparities in education and health are, first and foremost, a product of the characteristics of people’s contexts (e.g., access to high-quality schools). Most structural theorists acknowledge that individuals play an important role in influencing the environments that they inhabit (see House, 1981; Schooler, 2007; Sewell, 1992). However, research guided by the structural model tends to examine how material resources shape individual behavior, rather than how individuals shape their contexts. In particular, the structural model first reveals social class differences in the conditions of people’s contexts and then links these different contextual conditions to the behaviors that promote inequality in health and education.

In the next section, we present key examples of research that illustrate how the structural model explains social class disparities in education and health and provide an example of an intervention that seeks to address these disparities. Then, we use these examples to highlight how the structural model falls short both in terms of explaining the sources of inequality and in designing effective interventions.

How the Structural Model Informs Research on Educational and Health Inequality

Why do people in low SES contexts experience negative outcomes in terms of education and health? In the context of education, the structural model focuses on identifying the characteristics of low SES environments that contribute to the types of behaviors (e.g., academic disengagement) that lead to unequal outcomes in academic achievement and assumes that these environmental differences are the primary source of inequality. For example, the research described below assumes that low SES students do not perform up to their potential because they do not have access to the types of high-quality schools that would support high academic achievement. Likewise, in the context of health, research guided by the structural model assumes that people from low SES contexts experience negative health outcomes because they are regularly exposed to the types of living conditions that promote unhealthy behavior (e.g., lack of access to healthy food).

Educational Inequality

Example 1: School quality. One area of research suggests that social class disparities in academic achievement are produced by differences in school quality. The schools that typically educate low SES students receive only a small proportion of the funding received by the schools that educate high SES students (Darling-Hammond, 2010). As a result, low SES schools tend to offer much lower quality environmental conditions (Hochschild, 2003). For example, one study of a representative sample of U.S. public schools found that low SES students more often attend schools that are overcrowded and that have leaky roofs, low-quality plumbing, lighting problems, and poor ventilation (National Center for Education Statistics, 2000). Low SES students also have less access than high SES students to important academic resources, such as textbooks, technology, and recreational facilities (Bourdieu, 1984; DiMaggio, 1994; Oakes & Saunders, 2004).

Another important structural difference for low SES students is the quality of teachers. Studies show that low SES students tend to have access to teachers who are far less qualified—in terms of test scores, certification, and prior teaching experience—than those who teach high SES students (Darling-Hammond, 2000, 2007; Ingersoll, 1999; Lankford, Loeb, & Wyckoff, 2002; Loeb, Darling-Hammond, & Luczak, 2005). Notably, highly qualified teachers positively impact students' academic outcomes, such as whether students pass state exams, take advanced placement classes, and graduate from high school (Betts, Rueben, & Dannenberg, 2000; Darling-Hammond, Berry, & Thoreson, 2001; Darling-Hammond & Youngs, 2002; Hochschild, 2003). For example, one study compared the math outcomes of elementary school students (third through fifth grade) who were taught for 3 years by teachers who were rated as highly effective or highly ineffective. Controlling for previous academic achievement (in second grade), students taught by highly effective teachers for 3 years ranked in the 96th percentile, whereas students taught by highly ineffective teachers for 3 years ranked in the 45th percentile (Sanders & Rivers, 1996; see also Wright, Horn, & Sanders, 1997).

Example 2: Educational practices. Another body of research suggests that social class disparities in academic achievement emerge, in part, from the educational practices to which students are exposed. For example, some researchers contend that the practice of “tracking” students into different groups on the basis of their alleged ability levels is one source of social inequality in education. Low SES students, even those who have the same grades and test scores as their high SES counterparts, are disproportionately tracked into low-level “ability” groups (Oakes, 1985, 1987; Oakes & Guiton, 1995). These initial track placements are often self-perpetuating and can therefore have a lasting negative impact on low SES students' educational opportunities and future chances of academic success (Jackson, 2009).

Tracking also affects the nature of students' academic experiences. Schools that track students tend to have greater social class disparities in academic achievement than comparable schools that do not track students (Lee & Croninger, 1994). Moreover, students who are placed in classes for high-level “ability” groupings tend to receive higher quality instruction and are held to higher expectations by teachers (Finley, 1984; Hargreaves, 1967; Rosenbaum, 1976). In terms of educational content, high-level track classes tend to teach students “concepts, processes, and higher order

skills” (Oakes, 1987, p. 141). In contrast, students in low-level groupings tend to take fewer math and science classes and are taught more “low-level” or practical skills (Hargreaves, 1967; Metz, 1979; Powell, Farrar, & Cohen, 1985). These examples demonstrate how efforts to sort students according to their skills and academic “ability” levels can inadvertently serve to maintain or widen the social class achievement gap (Gamoran & Berends, 1987; Oakes, 1985; Vanfossen, Jones, & Spade, 1987).⁹

Health Inequality

Example 1: Living conditions. One area of research suggests that social class disparities in health are a product of differential access to the services, facilities, and safe living conditions that are known to foster healthy behavior (e.g., healthy diet, increased physical activity). For example, people in low SES neighborhoods have less access to parks, walking and biking trails, playgrounds, and safe spaces for recreation (Estabrooks, Lee, & Gyurcsik, 2003; Macintyre, Maciver, & Sooman, 1993). They also have less access to health care, emergency care services, transportation, garbage collection, and police and fire protection (Evans, 2004; Sooman & Macintyre, 1995; Taylor, Repetti, & Seeman, 1997). People who lack access to these types of services and facilities are more likely to experience poor health outcomes (e.g., Larson & Halfon, 2010). For example, one study used nationally representative cohort data to examine the relationship between access to recreational facilities and physical activity (Gordon-Larsen, Nelson, Page, & Popkin, 2006). Consistent with the structural model, results of the study found that reduced access to recreational facilities was associated with decreased levels of physical activity and higher rates of obesity.

Example 2: Access to healthy food. Another area of research suggests that social class disparities in health emerge from differential access to healthy food. One meta-analysis including 54 studies from 1985 through 2008 found that low SES neighborhoods provide reduced access to large supermarkets that carry healthy food options, such as fresh fruits and vegetables, but more access to small convenience stores, fast food restaurants, and bars that offer unhealthy food options, such as fast food and liquor (Larson, Story, & Nelson, 2009; see also Morland, Wing, Diez Rioux, & Poole, 2002; Sallis, Nader, Rupp, Atkins, & Wilson, 1986). Notably, healthy foods in low SES neighborhoods are not only more difficult to obtain but are also more expensive (Chung & Myers, 1999; Morland, Wing, Diez Rioux, & Poole, 2002; Taylor et al., 1997). Lack of access to reasonably priced, healthy food options contributes to the unhealthy eating habits that lead to higher rates of obesity, diabetes, and heart disease (e.g., Cheadle et al., 1991; Cummins & Macintyre, 2006; Morland, Wing, & Diez Rioux, 2002; Rose & Richards, 2004).

In sum, these studies on school quality, educational practices, living conditions, and access to healthy food reflect the structural model of behavior because they seek to explain social class disparities in education and health by focusing on the conditions of the environments that individuals inhabit. In these examples, differing structural conditions (e.g., poor classroom environments)

⁹ Although the bulk of studies support the view that tracking disadvantages low SES students, there are some studies that suggest that tracking is not harmful (e.g., Figlio & Page, 2002; Waldinger, 2007).

were seen as the underlying or primary cause of the behavioral differences (e.g., lower levels of academic achievement) associated with inequality in education and health.

The assumption that behavior is a product of structural conditions, rather than individual abilities or skills, is also evident in interventions that are informed by the structural model. One of the best known structure-focused interventions in the United States is the federally funded neighborhood-level intervention, Moving to Opportunity.

How the Structural Model Informs Interventions: Moving to Opportunity

Moving to Opportunity (MTO) moved 6,200 families to new, higher SES neighborhoods and cost approximately 234 million American tax dollars (Fiss, 2003). Moving people to new neighborhoods with less poverty, better schools, safer streets, and better places to work was widely viewed by sociologists as the “ideal” intervention. Moving people to higher SES neighborhoods improved many of the structures (e.g., better schools) that are tied to neighborhoods and that can affect behavior. For example, the U.S. Department of Housing and Urban Development provided low-income families with housing vouchers and counseling and required them to move for at least 1 year to a neighborhood that had lower rates of poverty than their previous residence.

This intervention was expected to improve people’s psychological well-being, as well as their educational and economic outcomes. Yet, upon evaluation, the families who participated in the intervention showed few of the hypothesized improvements. Although adults reported that they felt safer in their new neighborhoods and experienced less depression than those who did not take part in the intervention, they did not improve their employment, income, sense of well-being, or educational prospects. Moreover, among the youths who participated in the program, researchers found that although females showed some improvements in mental health, educational performance, and behavior, males who participated in the intervention actually experienced worse behavioral outcomes (e.g., more smoking and delinquency) than those who did not participate in the intervention (see Orr et al., 2003, for summary of findings).¹⁰

Reflecting the structural model, MTO assumed that healthy behavior and strong academic performance are products of inhabiting safe neighborhoods with access to high-quality health care facilities and schools. Guided by this assumption, MTO further assumed that changing behavior primarily required changing structures. Although structures are important factors that afford and constrain the types of actions that are possible, the sociocultural self model explains why attention to structural factors alone is often insufficient to produce sustained behavior change. We suggest that MTO may have been ineffective, in part, because it did not fully recognize the two important tenets that are central to the sociocultural self model of behavior: the principle of mutual constitution and attention to selves as a systematic source of the culture-specific meanings that guide behavior.

First, although MTO recognized the way in which structural conditions shape individuals, it did not attend to the other direction of mutual constitution—how individuals shape the structural conditions of the contexts they inhabit. In particular, MTO did not fully recognize that structures typically do not produce behavior on

their own. Instead, certain characteristics of individuals are required to take advantage of the structural opportunities available in an environment. For example, in order to adopt healthy eating habits, people must have the skills to know how to access or prepare healthy foods and the sense of self-efficacy to take advantage of opportunities to consume healthy food when it is available.

Second, MTO did not attend to the role of the socioculturally shaped selves that guide behavior by shaping how individuals make sense of their environments. The sociocultural self model considers that people’s socioculturally shaped selves inform how people make sense of the situation (e.g., what it means to move to a “better” neighborhood; DeLuca, 2007; DeLuca & Rosenblatt, 2010). These understandings (e.g., whether people identify with the new neighborhood), in turn, guide how people respond to the opportunities that the new neighborhood presents (Schooler, 2007; Sewell, 1992). For example, even after moving to a new neighborhood with access to higher quality schools, individuals may not see themselves as “learners” or “students.” Without these types of school-relevant selves, they may harbor low expectations for their educational attainment or have concerns about how teachers will view them, and as a result, they may not fully take advantage of the opportunities that are available to them.¹¹ The nature and content of people’s selves—whether individuals identify as “students” and understand school as something for “people like me”—will, in turn, influence whether or not a given strategy for improving academic performance will be effective.

Implications of the Structural Model

In the second section of this article, we reviewed key examples of research guided by the structural model and provided an example of a well-known intervention. These research examples share a focus on the material conditions of the environment as the primary causes of the behaviors that contribute to social inequality. Informed by the structural model, a researcher might ask, “What are the characteristics of school environments that lead to the achievement gap?” or “What are the physical arrangements of people’s neighborhoods that contribute to obesity?” As the examples above illustrate, the answers to these questions according to the structural model are that low SES students underperform because low SES schools offer less qualified teachers and that low SES adults are less healthy because low SES neighborhoods provide less access to healthy food. These structure-focused explanations of inequality lead to interventions designed to improve education or health by changing the conditions of people’s environments (e.g., improving teacher quality, providing access to healthy food).

¹⁰ Strikingly different explanations have been offered to account for the ineffectiveness of the MTO program. For example, prominent sociologist William Julius Wilson argued that the intervention simply did not produce enough structural changes to be effective in changing behavior. On the other hand, *New York Times* columnist David Brooks concluded that relocation programs are useless because changing structures does not change behavior: “The positive influences in the center get overwhelmed by the negative peer influences” (Brooks, 2007).

¹¹ People’s understandings of themselves can develop and change over time but do not change immediately. Rather, such understandings change only through sustained engagement with new ideas and practices in different contexts (e.g., Heine, Lehman, Markus, & Kitayama, 1999).

Although the structural model highlights a number of important environmental factors that contribute to inequality, this model falls short in explaining inequality and in designing effective interventions. As we described above, the structural model falls short because it is too narrow in its focus. First, by focusing primarily on material resources and environmental conditions, the structural model does not sufficiently attend to the role that the individual plays in shaping behavior. That is, providing new environmental opportunities may be insufficient to change behavior if people lack the types of individual characteristics and skills necessary to support that behavior. For example, if an intervention provides increased access to healthy food, people may not take advantage of the opportunity to eat healthy food if they do not have self-efficacy in this domain (e.g., at least a preliminary understanding that they are capable of changing their diets).

Second, the structural model does not recognize the role of the socioculturally shaped selves that influence how people interpret and respond to structures. By focusing on structures, this model implicitly assumes that people from different sociocultural contexts are basically the same and will respond to structures in the same ways. In other words, this model assumes that, irrespective of their prior life experiences, people with access to fruits and vegetables will eat more fruits and vegetables than will people with less access. The structural model, however, does not incorporate the insight that food choices are often self-expressive and communicate a connection or a lack of connection to a particular social group (Oyserman, Fryberg, & Yoder, 2007). Food can signal ethnicity, race, or social class standing (e.g., arugula equals upper middle class). Access to healthy food, then, does not affect behavior directly but rather *indirectly* through the selves that emerge in the situation through which people make sense of the structures of their environment (cf. Adams & Markus, 2004; Sewell, 1992; Shweder, 1990). For example, low SES Americans, who often live in places where healthy, affordable food is difficult to obtain (i.e., “food deserts”), may not have had the opportunity to develop selves as “healthy eaters” or to see eating vegetables as consistent with their selves (as “me” or as “something that people like me

would do”; see Oyserman et al., 2007). Although structural access to healthy food (e.g., supermarkets in one’s neighborhood) is a necessary precondition for healthy eating, it is not sufficient. This example reveals why simply having access is unlikely to change behavior if people do not currently have or develop selves that are consistent with and supportive of that behavior.

In the final section, we develop and outline the theoretical foundation and predictions of the sociocultural self model of behavior. We also describe how the sociocultural self model provides a more complete understanding of the sources of social inequality and offers more effective tools for reducing social class disparities in health and education.

The Sociocultural Self Model of Behavior: Key Tenets

In the context of research, the individual and the structural models of behavior provide powerful analytical toolkits. Both models allow researchers to identify important factors that contribute to inequality. Yet, at the same time, an exclusive focus on either individuals or structures can create the mistaken impression that individual and structural factors are mutually exclusive or opposing explanations of inequality, rather than complementary factors that influence each other and operate in tandem. By both incorporating and extending key tenets of the individual and structural models, the sociocultural self model is much more than merely a combination of these models (see Table 3).

First, the sociocultural self model conceptualizes individual characteristics (e.g., skills) and structural conditions (e.g., access to resources) as interdependent forces that influence each other in a bidirectional cycle of mutual constitution and asserts that these forces are best analyzed and understood together. Second, the sociocultural self model recognizes that both individual characteristics and structural conditions indirectly influence behavior through the socioculturally shaped selves that emerge in a given situation. These selves allow individuals to make sense of their environments and thereby provide a systematic source of the meanings that guide behavior (Adams & Markus, 2004; Fiske et

Table 3
Sociocultural Self Model Applied to Social Class Disparities in Health and Education

| | |
|--|--|
| Key assumptions | <ul style="list-style-type: none"> - Individuals and structures are interdependent forces that mutually constitute each other and are best analyzed together. - Individual characteristics and structural conditions indirectly influence behavior through the selves that are relevant in the situation. - Selves are a product of the ongoing mutual constitution of individuals and structures and serve to guide people’s behavior by systematically shaping how people construe situations. |
| Solutions to inequality: Guidelines for change | |
| 1. Promote selves that support the desired behavior. | <ul style="list-style-type: none"> - What are the current selves that are relevant in the situation? - How do the current selves influence the meaning of the desired behavior? - Is the desired behavior seen as self-relevant (“me”)? - If the desired behavior is not currently self-relevant (“me”), then what are the desired selves in the situation that would foster the desired behavior? - How can the connections between current and desired selves be established or strengthened? |
| 2. Ensure that individual-level and structural-level factors afford selves that support the desired behavior in an ongoing manner. | <ul style="list-style-type: none"> - Which individual characteristics need to be developed to foster the desired selves? - Which structural conditions need to be modified to foster the desired selves? |

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al., 1998; Markus & Kitayama, 2003; Shweder, 1990). In one direction, illustrating this process of mutual constitution, lower social class contexts with fewer material resources and greater constraints may foster higher individual levels of social responsiveness and attention to others than higher social class contexts (see Kraus, Piff, & Keltner, 2011; Stephens, Fryberg, & Markus, 2011). In the other direction, these interdependent psychological tendencies inform how individuals interact with their sociocultural contexts and with other people in these contexts over time (Stephens et al., 2009). In the case of parent–child relationships, for example, parents who have been shaped by lower social class contexts may socialize their children with relational norms that focus on recognizing one’s place in the hierarchy and attending to others rather than individualistic norms that focus on expressing individual preferences and influencing the environment (e.g., Kuserow, 1999; Lareau, 2003). Thus, individuals shape their contexts in a way that reflects the psychological tendencies that were afforded to them by the structural conditions of their sociocultural contexts.

The sociocultural self model is grounded in classic social psychological principles, but also builds on and extends these principles (cf. Adams, 2012; Markus & Hamedani, 2007). As elaborated in Ross and Nisbett’s (1991) book, *The Person and the Situation*, the first social psychological principle, termed “the power of the situation,” refers to the idea that subtle situational factors can have a powerful influence on psychological experience and behavior. Extending this principle, the sociocultural self model views the situation with a wide-angle lens and recognizes that “the situation” is more than just the *immediate situation*. That is, the sociocultural self model conceptualizes the situation as embedded in the larger sociocultural contexts in which individuals participate, such as those demarcated by social class, race/ethnicity, gender, religion, nation, and region of origin. The model further recognizes that these socially and historically constructed sociocultural contexts contain sets of culture-specific ideas, practices, and institutions that shape the selves that emerge in particular situations and, in turn, how people make sense of and respond to those situations.

The second social psychological principle, termed “the importance of subjective construal,” refers to the idea that the situation influences behavior through people’s interpretation or “construal” of that situation (Ross & Nisbett, 1991). Extending this principle, the sociocultural self model reveals that the meaning of a situation is not just a function of individuals who choose to interpret situations in their own idiosyncratic ways. Rather, the meaning of a situation and how it is interpreted vary *systematically* according to people’s socioculturally shaped selves. The nature and content of the selves that are relevant in a situation not only shape what that situation means but also guide how the situation affects behavior. Consider, for example, how an understanding of the self as working-class might shape behavior in an academic setting. If one’s understanding of the self as working-class is not seen as connected to what it means to be a “good student,” then one may view academic behaviors (e.g., completing homework) as “not me” or as “not something that people like me should do.” As a consequence, such a student may be less motivated to do homework or to take advantage of learning opportunities than another student who understands being a student as part of what it means to be a self.

The next section provides research examples that highlight the benefits of the sociocultural self model of behavior for explaining social class disparities. We included these examples because they either implicitly or explicitly illuminate one or both of the key insights of the sociocultural self model—the principle of mutual constitution and attention to selves as a systematic source of the culture-specific meanings that guide behavior. Although some research in social psychology is moving toward a sociocultural self model, examples are still quite limited and tend to illustrate only part of the model. In the following section, we describe emblematic examples from the literature on (a) social identity threat, (b) identity-based motivation, and (c) cultural models of self and agency. We then describe how the insights of the sociocultural self model can provide the tools to design more effective interventions.

Three Research Examples of the Sociocultural Self Model

Social Identity Threat

In contrast to a traditional focus on individual factors such as self-efficacy or structural factors such as teacher quality, a central premise of social identity threat theory, as formulated by Claude Steele and colleagues, is that social identities matter for belonging, academic engagement, motivation, and achievement (Steele, 2010; Steele, Spencer, & Aronson, 2002). For example, in *Whistling Vivaldi*, Steele wrote, “Unless you make people feel safe from the risk of these identity predicaments in identity-integrated settings, you won’t succeed in reducing group achievement gaps” (2010, p. 215). In other words, reducing group achievement gaps cannot be accomplished without taking into account the nature and content of the social identities that emerge in a situation and ensuring that these identities feel safe in that setting (Purdie-Vaughns, Steele, Davies, Ditlmann, & Crosby, 2008).

Social identity threat research reveals that social identities powerfully shape academic experience. The typical experimental procedure involves telling students that an academic test, such as the SAT or the GRE, is diagnostic of ability and then comparing students’ performance on these tests to a condition in which they are told that the test is not diagnostic of ability. These studies reveal that a simple reminder of negatively stereotyped identities (e.g., describing the test as a measure of ability or reminding people about their negatively stereotyped social identities) can cause students to experience elevated concerns about their performance and, ultimately, lead them to underperform in test-taking situations (Inzlicht & Schmader, 2011; Steele et al., 2002; Steele, 1997).

Consider, for example, how an individual who identifies as working-class or low SES might experience a test described as diagnostic of “ability” (see Croizet, 2008). In an experimental study, Croizet and Claire (1998) recruited a socioeconomically diverse sample of French undergraduates and asked them to complete a verbal GRE test. In the diagnostic condition, the participants were told that the test was a measure of their verbal ability, whereas in the nondiagnostic condition, they were told that the test was designed to “test several hypotheses about the role attention plays in the functioning of lexical memory” (p. 590). Croizet and Claire found that when the test was described as diagnostic of ability, the low SES students performed worse than the high SES

students. However, when the test was described as nondiagnostic, the low SES students performed as well as their high SES peers. In the diagnostic condition, the low SES students likely interpreted a test of ability in light of negative stereotypes about social class and intellectual ability and therefore experienced it as a threat; the high SES students did not have to contend with negative stereotypes regarding their intellectual ability and may have instead experienced the diagnostic situation as a reminder that they could perform well (see also Johnson, Richeson, & Finkel, 2011; Spencer & Castano, 2007). This study illustrates that a “diagnostic” test of ability has different meanings and behavioral consequences for students depending on the identities that emerge in the test-taking situation.

Social identity threat research attends to the two key tenets of the sociocultural self model. First, drawing on the principle of mutual constitution, social identity threat research recognizes that people’s identities are a sociocultural product. In other words, this research acknowledges that selves and identities and the meanings that they bring to bear in a given situation derive from individuals’ previous and current interactions with the structures of the sociocultural contexts to which they have been exposed (e.g., lack of role models, negative stereotypes).¹² Second, these studies recognize that people’s identities or selves (e.g., whether they identify as low vs. high SES) can systematically influence what a situation means to an individual and how that situation affects academic performance. In terms of intervention, these studies suggest the importance of removing obstacles in the environment that threaten or conflict with the selves or identities relevant to the situation.

Identity-Based Motivation

Identity-based motivation theory focuses on the central role that identity or self plays in motivating behavior. Oyserman (2009) defined identity-based motivation as “the readiness to engage in identity-congruent action” (p. 250). This theory regards the identity or self as a multifaceted construct that “functions to organize past and present experience, illuminate one’s future possibilities, sustain motivation, and control behavior in pursuit of the selves one might become” (Oyserman, 2007, p. 432). The key claims of the theory are that people’s identities provide culture-specific frameworks to help individuals interpret situations and to make sense of the world and that people prefer to act in ways that are consistent, rather than inconsistent, with their identities (Oyserman & Destin, 2010).

Consider the important role of identity-based motivation in the context of health behavior (e.g., eating healthy food). Oyserman et al. (2007) conducted a series of studies that revealed the importance of considering what a given behavior means to individuals with different social identities. In two initial studies, they found that racial-ethnic minority students, compared to White students, were more likely to view health promotion as a behavior that was inconsistent with their social identities. That is, for racial-ethnic minority students, health promotion was seen as a behavior for people who are White and middle class, *not* for “people like me.” In a subsequent study, Oyserman et al. found that, when social class and racial-ethnic identities were made salient, low SES, racial-ethnic minority students were more likely to report fatalistic health beliefs and less engagement with health promotion. These studies imply that students who have access to racial-ethnic iden-

ties that are relatively incongruent with healthy behavior (e.g., maintaining a healthy diet or exercising) will be less motivated to engage in those types of behaviors. Together these studies reveal that healthy behavior (e.g., eating healthy food) is not a part of everyone’s identities and that taking into account identity or self and its relation to maintaining a healthy diet or exercising is critical for understanding the underlying sources of healthy or unhealthy behavior and determining how to change it.

Identity-based motivation theory attends to the two key tenets of the sociocultural self model. First, the studies on this topic demonstrate that identities are a product of the mutual constitution of individuals interacting with the structures of their sociocultural contexts over time. Second, these studies highlight that identity is a powerful source of the culture-specific meanings that guide behavior. For example, what it means to be a healthy person varies based on the content of people’s social identities, which identities are relevant in a situation, and whether the behavior of interest (e.g., maintaining a healthy diet) is congruent or incongruent with the relevant identities in that situation. In terms of intervention, these studies suggest that producing lasting behavioral change requires making the desired behavior identity relevant.

Cultural Models of Self and Agency

For the last two decades, an emerging area of research in cultural psychology has illuminated the sociocultural diversity of human behavior and psychological functioning (see Markus & Kitayama, 2010). The central premise of this research is that individuals’ psychological functioning—how people think, feel, and act in the world—is a sociocultural product. As Markus and Kitayama (2003) explained, “Being a person and acting in the world are anything but natural acts; they are culturally saturated processes that entail engagement with culture-specific sets of meanings and practices” (p. 6). That is, contexts with different sets of ideas, practices, and institutions provide people with particular cultural models or sets of widely shared understandings of how to be an appropriate person in the world (Cross & Madson, 1997; Markus & Kitayama, 2003, 2010). These *cultural models of self and agency* guide individuals’ behavior and serve as a blueprint for how people understand their own and others’ behavior (Fiske et al., 1998; Holland & Quinn, 1987; Shore, 1996).

Research conducted in a variety of contexts has identified two common models of self and agency (Markus & Kitayama, 1991). The *independent* model of self assumes that actions are and should be freely chosen, separate from the social contexts in which they occur, and contingent on individuals’ personal preferences, intentions, or goals (Markus & Kitayama, 2003). In contrast, the *interdependent* model of self assumes that actions are and should be responsive to the conditions of the context and contingent on the needs, preferences, and interests of others. Much of the research on these two models of self has focused on comparing individuals from North American contexts with those from East Asian contexts. More recently, however, this area of research has been

¹² Most research guided by a sociocultural self model attends to mutual constitution indirectly. That is, by examining selves, which emerge through the process of the mutual constitution of individuals and structures, research implicitly acknowledges the bidirectional influences of individuals and structures on one another.

extended to a wide array of contexts, such as those demarcated by region of origin, religion, race, and social class (Cohen, 2009; Fiske & Markus, 2012; Plaut, Markus, & Lachman, 2002; Snibbe & Markus, 2005; Stephens et al., 2009).

Relevant to the question of social class disparities in education, the emerging cultural psychology literature reveals that individuals from American working-class contexts tend to employ relatively interdependent models of self and agency, whereas individuals from American middle- and upper-class contexts employ relatively independent models of self and agency (Fiske & Markus, 2012; Kraus et al., 2011; Snibbe & Markus, 2005; Stephens, Fryberg, & Markus, 2012; Stephens, Markus, & Townsend, 2007). In the context of higher education, Stephens, Fryberg, Markus, Johnson, and Covarrubias (2012) hypothesized that social class differences in students' understandings of self and agency could be one important factor contributing to the social class achievement gap. They proposed that students from working-class backgrounds (i.e., students whose parents do not have 4-year college degrees) underperform in college because they experience a "cultural mismatch" between their relatively interdependent motives for attending college (e.g., giving back to one's community) and the largely middle-class, independent cultural norms that are institutionalized in American universities (e.g., paving one's own path).

In a series of studies, Stephens, Fryberg, Markus, Johnson, and Covarrubias (2012) first identified the proposed cultural mismatch between student motives and university cultural norms and then revealed its performance consequences. First, to assess the university culture, they surveyed a diverse sample of high-level university administrators and asked them to indicate their institutions' expectations for college students. As expected, the vast majority of administrators characterized the university culture as focused on independent cultural norms (e.g., exploring personal interests, working independently, and paving one's own pathways). Next, Stephens, Fryberg, Markus, Johnson, and Covarrubias examined students' motives for attending college. A survey of incoming college students revealed that, compared to their middle-class peers (i.e., students who have one or more parents with a 4-year degree), students from working-class backgrounds were less often motivated to attend college for independent reasons (e.g., to develop and explore the individual self) and more often motivated to attend college for interdependent reasons (e.g., to give back to their communities and to help their families). Stephens, Fryberg, Markus, Johnson, and Covarrubias then examined the impact of these social class differences in incoming students' motives on academic outcomes during the first 2 years of college. A greater focus on independent motives (a cultural match with college culture) predicted higher grade point averages (GPAs) at the end of the first 2 years in college, whereas a greater focus on interdependent motives predicted lower GPAs.

Finally, two experiments created the experience of a cultural match or mismatch and then assessed students' performance on common measures of verbal and spatial ability (i.e., anagrams and tangrams). Participants were randomly assigned to read one of two welcome messages from their university. The independent message framed the university culture and college experience as about exploring personal interests, working independently, and paving one's own pathways. In contrast, the interdependent message framed the university culture and college experience as about being part of a community, working collaboratively, and connect-

ing with others. As expected, when the college culture was framed in terms of independence (a cultural mismatch with working-class students' motives), students from working-class backgrounds experienced the performance task as more difficult than did students from middle-class backgrounds, and this construal of the task undermined working-class students' performance. Yet, when the college culture was framed in terms of interdependence (a cultural match with working-class students' motives), working-class students experienced the performance task as less difficult, and the social class performance gap between working-class and middle-class students was eliminated (Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). These studies illustrate how and why the same culture of independence can be experienced differently by students for whom different models of self and agency are relevant in the academic context. For students from working-class backgrounds who were motivated to attend college for interdependent reasons, the college culture of independence was experienced as a sign of discomfort and a signal that they did not belong. Conversely, for students from middle-class backgrounds, who were motivated to attend college for independent reasons, the college culture was experienced as a sign of comfort and belonging.

Research on cultural models of self and agency attends to the two key tenets of the sociocultural self model. First, drawing on the principle of mutual constitution, these studies recognize that both the culture of higher education itself (e.g., the expectations for college students) and the selves that emerge in academic settings are products of the ongoing mutual constitution of individuals interacting with structures in particular sociocultural contexts. As for the culture of higher education, universities' expectations for college students are not neutral but instead are constituted by particular middle-class perspectives or assumptions about what it means to be a "good" person or a "good" college student. Further reflecting the sociocultural self model, these studies reveal that students' socioculturally shaped selves are informed by students' previous life experiences in different social class contexts and that these selves are a potent source of the culture-specific meanings that guide performance in academic settings. That is, above and beyond the skills that students bring to the university setting (individual factors) or the financial and economic resources that they have available to them (structural factors), students' understandings of who they are and what they are doing (e.g., their culture-specific motives for attending college) affect both how they construe their academic experiences and how they are able to perform in university settings. In terms of intervention, these studies suggest the importance of diversifying the cultural norms built into higher education and also of providing new frameworks that allow individuals to connect their current selves to the desired behavior (e.g., academic engagement) in that setting.

Utilizing the Sociocultural Self Model to Understand and Reduce Inequality

First, the current review suggests that changing structural-level factors is necessary but not sufficient to produce sustained behavior change. That is, changing structural conditions (e.g., providing access to high-quality schools, highly skilled teachers, and material resources) is unlikely to produce lasting behavior change without also fostering the individual characteristics (e.g., academic

knowledge or skills) or the selves (e.g., understanding the self as a learner) necessary to support that behavior. Consider Roland Fryer's (2011) controversial randomized experiments that provided short-term financial incentives for students who displayed behaviors linked with academic achievement (e.g., receiving money for a good grade on a test). Across the four major cities where the studies were conducted, Fryer did not find any statistically significant differences between the performance of the students who were paid and that of the students who were not paid for their performance. Although these experiments generated enthusiasm among students who wanted to receive money for strong academic performance, the follow-up interviews demonstrated that many students did not have the knowledge or study skills to improve their performance on their own. Despite a strong desire to improve, many students simply did not understand what was required of them (e.g., studying more, asking teachers for help) to realize the desired improvements in academic performance. In other words, the experiments created powerful structural-level incentives for performance, but they did not attend to the individual-level characteristics (e.g., skills and knowledge) or to the selves (e.g., identifying as students) that were also necessary for the structural changes to have a lasting impact on behavior (Fryer, 2011).

Second, the current review suggests that changing individual characteristics is also necessary but not sufficient to change behavior. That is, individual characteristics alone are unlikely to produce lasting behavior change without the structural conditions or the selves to support that behavior. For example, providing individuals with a sense of self-efficacy, personal control, or improved knowledge about healthy food may have little impact on eating behavior if individuals do not have access to healthy options or if they do not develop selves as "healthy eaters." Consider the increasingly common practice of providing students with nutrition education in schools. Although such programs produce more positive attitudes toward healthy food, there is little evidence that they create any measurable changes in children's eating habits over time (Mendoza, 2007; Stetson & Davis, 1999). To explain the ineffectiveness of these programs, researchers have cited the difficulty of changing behavior when children find themselves in contexts of poverty—where unhealthy food is less expensive and more readily available. They also have noted that children in low-income environments are more likely to be unsupervised in their food choices, given that their parents are often working long hours outside of the home to make ends meet. In other words, at the individual level, the nutrition programs may have created a new set of attitudes toward healthy eating, but they did not attend to the structural-level characteristics (or to the selves) that are also necessary for the individual changes to have a lasting impact.

The sociocultural self model of behavior builds on the insights of individual and structural models and also recognizes the critical role of the socioculturally shaped selves that allow people to make sense of their worlds and thereby regulate their behavior. Given that selves are both a product and a source of individual characteristics and structural conditions (see Figure 1), sustained behavior change requires that all three factors—selves, individual characteristics, and structural conditions—work in concert to support the desired behavior in an ongoing fashion. Attending to all three factors does not mean that a single intervention must change all of these factors at the same time. Interventions can productively

target any one of these three factors (e.g., individual characteristics) but are likely to be effective only if (a) there is current support for the desired behavior at the other two levels or (b) the resulting changes at one level positively impact the other two levels in a way that supports and sustains the desired behavior. According to the sociocultural self model, successful interventions should take into account the interdependence between these three factors and the ways in which their effects on each other guide behavior.

Following from this understanding, an intervention guided by the sociocultural self model could alter one factor with careful attention paid to how changing that factor could result in effects on the other two factors required for behavior change. Consider, for example, the possible cascading effects that could result from a shift in the meaning of self in an academic setting (see Yeager & Walton, 2011, for discussion of the importance of recursive processes that accumulate their effects over time). The sociocultural self model predicts that providing students with a new framework for interpreting the self in an academic context (e.g., connecting working-class selves to what it means to be a "good" student) would result in the desired shift in students' behavior in that context (e.g., produce greater academic engagement) to the extent that the students have the basic academic skills (individual characteristics) and school or teacher support (structural conditions) necessary for academic engagement. As illustrated in Figure 1, if an intervention effectively improves academic behavior (e.g., increases academic engagement), then a change in academic behavior would be expected to feed back into and strengthen the individual characteristics, structural conditions, and selves that work in concert to support that behavior. For example, increased academic engagement over time (e.g., more time studying and preparing for class) should enable students to develop stronger academic skills and to increase their sense of efficacy in academic domains (individual characteristics). Improvement in students' academic skills or efficacy, in turn, has the potential to change how students interact with their environments in ways that could systematically foster and promote increased opportunities for success (structural conditions). For example, if students have the necessary academic skills to perform well in school, they might receive greater attention from teachers who recognize those improved skills. As a result, they might earn opportunities to attend higher quality schools, and this would continue to foster the development of academic skills and self-identification as students. In sum, if the initial change in the self also yields positive changes in the individual characteristics and structural conditions that are required to support the maintenance of the desired self, the behavioral changes that are a product of that intervention are more likely to be sustained over time.

Building on these insights, the sociocultural self model predicts that the effectiveness of changing individual characteristics and/or structural conditions for producing sustained behavior change will be moderated by the degree to which current selves support the desired behavior (e.g., healthy eating). The model predicts

Hypothesis 1: Intervention efforts will be more effective at producing sustained behavior change when people's current selves are congruent rather than incongruent with the desired behavior.

Assessing whether individuals' current selves support the desired behavior requires examining the content of people's current selves and their meaning for the desired behavior, as well as strengthening connections between current and desired selves (i.e., the selves that would foster the desired behavior). Illuminating the nature and content of the self requires a multipronged approach that incorporates both direct and indirect methods. For example, as a direct method, researchers might simply ask individuals how they view themselves and the groups with which they identify. One method for directly assessing the content of a self would be to complete a "20 statements test" (i.e., respond to the question of "Who am I?"; see Kuhn & McPartland, 1954). In response to these questions, an individual might report that she is a female, a Latina, and a working-class college student. Given that individuals are often not consciously aware of how their selves lend structure and meaning to their behavior (Nisbett & Wilson, 1977; Wilson, 2004), it is also important to infer the content and meaning of selves in an indirect manner. For example, as an indirect method, one might consider how the structures of the environment influence what it means to identify as a working-class college student in an academic setting: "What are the opportunities that you have or your group has had in education historically?" "What are the relevant social representations of your group in academic settings?" "How do other people act toward your group in academic environments?" These indirect methods provide additional insights about the relevant selves that people are likely to bring to the situation and the extent to which those selves are congruent or incongruent with the desired behavior (e.g., academic engagement and motivation).

If the current selves are generally not congruent with and do not support the desired behavior, it is important to identify which desired selves (e.g., identifying as a learner) should be established or further developed so as to foster the desired behavior (e.g., academic engagement). After these desired selves are identified, it is also important to assess whether the current selves (e.g., identifying as working-class) include or overlap with the desired selves (e.g., identifying as a learner). If current selves do not include the desired selves, the next step is to connect them. Forging connections between people's current and desired selves increases the likelihood that the desired behavior change will occur and be maintained over time. For example, if an individual perceives his or her self as a "healthy eater," and this self is linked to what it means to be an "African American" (e.g., providing social representations of African Americans eating healthy food), then this "healthy eater" self will be more likely to foster the desired behavior than if an individual develops a "healthy eater" self without connections to other relevant selves. Imparting the desired behavior with self-relevant meaning is another strategy for creating connections between current and desired selves. For example, if identifying as African American signifies being part of a community, then community-based norms could be tied to the desired "healthy eater" self in order to reframe the meaning of being African American and thereby encourage more healthy eating.

Hypothesis 2: Intervention efforts to change behavior will be more effective at producing sustained behavior change when individual characteristics and structural conditions afford selves that support the desired behavior in an ongoing fashion.

Simply having a self or identity as a "healthy eater" (without supporting individual characteristics and structural conditions) is not enough to promote sustained changes in behavior. Ensuring that the new or strengthened selves continue to afford the desired behavior requires first assessing which individual and structural factors are necessary to support the desired selves and then determining which of these factors might need to be adjusted so as to foster and maintain the desired selves in an ongoing way. For example, if the desired self is not included or connected with the current self, one must ask, "What forces opposing the desired self must be removed?" and "What forces supporting the desired self should be amplified?" As our review of the literature reveals, the self is not simply a product of individuals who choose how to view themselves and their groups. As a result, shifting people's conceptions of themselves not only requires providing a new framework for understanding the self but also requires ensuring that structural conditions and individual characteristics provide ongoing support for the desired selves. Notably, the more factors at the structural and individual levels that afford and maintain the desired selves, the stronger the desired selves are likely to become and the more likely they are to guide behavior.

For example, in terms of structure, to afford and maintain a self or identity as a "learner" or "good student," one would want to ensure that students are regularly exposed to the types of structures that would support identification as good students. An environment that would support an understanding of the self as a good student would offer students the necessary academic tools (e.g., computers, textbooks, well-qualified teachers) to fully engage in learning and being a student. It would also provide positive social representations of one's social groups (e.g., representations of one's social groups performing well in academic settings; the presence of other students from one's relevant social groups who identify themselves as good students), offer an identity-safe space for learning (e.g., a lack of negative stereotypes about one's social groups), and seek to make educational practices more relevant to students' current selves. For example, as discussed earlier, Croizet and Claire's (1998) studies on social identity threat suggest that creating identity-safe spaces in test-taking situations would enable low SES students to perform better on tests of academic ability. One might imagine that improved test scores over time would also enable students to more easily maintain identities as "learners" or "good students."

For individual factors to also afford and maintain a self as a "good student," one would want to ensure that students have the knowledge and skills that they need to engage in the types of activities expected of good students. To afford and maintain "good student" selves, students may need extra support (e.g., tutoring) so that they can develop the skills (e.g., how to study effectively) that will enable them to take advantage of academic opportunities. They may also need information about how being a good student will shape their opportunities in the future (e.g., being admitted to college) and how they will be able to overcome perceived obstacles (e.g., being able to pay for college). For example, Destin and Oyserman's (2009) experimental studies with low-income seventh grade students found that simply telling students that college is affordable (i.e., can be paid for with need-based financial aid) led them to expect higher grades and to plan to spend more time on homework compared to students who were told that college was expensive or who received no message.

With a few notable exceptions, the theoretical insights of the sociocultural self model have not been applied to interventions aimed at reducing social class disparities in health and education. There are, however, a growing number of intervention efforts that seek to reduce the racial/ethnic achievement gap by focusing directly on how students are thinking about themselves and their identities or selves in the school environment (see Wilson, 2011). For example, in 10 sessions with low-income eighth graders, Oyserman, Bybee, and Terry (2006) focused on identifying students' school-related possible selves (i.e., views of the academic self in the future), and then connected these possible selves to students' current selves and helped them identify situationally plausible strategies to realize their future goals. Notably, this intervention not only sought to provide students' with a new way to think about themselves in the future (i.e., provided academic possible selves), but it also recognized that students needed realistic and appropriate strategies to realize those future goals (e.g., set my alarm, go to class) that built on their own experiences and academic knowledge. As a result of this intervention, students' academic initiative increased, test scores and grades improved, and absences were reduced. To ensure that these positive behavioral changes persist in the long run, the sociocultural self model claims that changes in students' behavior would also need to be supported by changes at the individual level (e.g., improved academic skills) and the structural level (e.g., continued encouragement from teachers to realize academic possible selves). Changes at these other levels would be needed in order for students to maintain their newly developed academic possible selves over time.

Likewise, Cohen, Garcia, Apfel, and Master (2006) have demonstrated that a short, in-class self-affirmation exercise—requiring Black and White college students to write about what matters to them most and why—had a strong positive effect on Black students' grades in subsequent years. Such studies recognize that students with different selves or identities construe the academic situation differently and that interrupting construal processes that lead to social identity threat can dramatically improve academic performance (see also Logel & Cohen, 2012; Walton & Cohen, 2007, 2011). Cohen et al. (2006) recognized that these improvements in performance were only possible because students already had “the skills to perform significantly better” (individual characteristics) and because the schools offered “adequate material, social, and psychological resources and support to permit and sustain positive academic outcomes” (structural conditions; p. 1309). To ensure that these improvements in academic performance persist in the long run, the sociocultural self model claims that this newly developed construal of the self would require ongoing support at both the individual and the structural levels.

The sociocultural self model suggests that these self- and identity-focused interventions are effective, in part, because changing students' selves or identities affects behavior in a way that can also improve the individual characteristics and the structural conditions that provide ongoing support for the desired behavior.

Implications and Conclusion

Over the course of the last half-century, research guided by the individual and the structural models has identified a multitude of important factors that contribute to social class inequality. For

example, in the case of health, research guided by the structural model reveals that people in low SES contexts tend to have less access to large grocery stores that provide access to healthy food but more access to convenience stores that provide access to liquor and unhealthy food. Attending to these structural factors can indeed shed light on why people in low SES contexts are more likely to eat unhealthy food and less likely to exercise than their high SES peers. Likewise, research focused on the individual model points to an array of individual-level factors that also contribute to unhealthy behavior (e.g., low levels of self-regulation or self-efficacy).

In short, when it comes to inequality in health or education, both the American Psychological Society, with its claim that life-threatening diseases are the result of individual choices, and Senator Wellstone, with his declaration that closing the achievement gap requires closing the investment gap between rich and poor schools, are correct, but only partly so. Neither individual nor structural factors in isolation can tell the whole story of how inequality emerges and how to reduce it. Above and beyond individual characteristics or access to material resources, the sociocultural self model extends traditional approaches by focusing on the self as a product of the mutual constitution of individuals and structures in particular sociocultural contexts over time. As the research examples on social identity threat, identity-based motivation, and cultural models of self and agency illustrate, selves are important because they guide how individuals make sense of their environments and, in turn, shape how the situation affects behavior. Attending to the self and how it imbues behavior with meaning is critical not only for understanding the causes of inequality but also for designing effective interventions that promote lasting behavior change.

Why does social class so reliably predict such a wide range of important health and educational outcomes? Why are social class disparities so resistant to change? In an effort to answer these important questions, social scientists and practitioners across disciplines tend to ask whether the causes of these social class disparities originate in the flaws of individual people or in the deficiencies of the environments that they inhabit. For example, in the social sciences, one of the most long-standing debates is nature versus nurture. Do genes or environments cause behavior? Are social inequalities due to bad people or a lack of resources? Although these questions may be intuitively appealing, the flawed assumption underlying them is that either people or their environments must be responsible for generating inequality. As our review of the literature illustrates, however, there are no “silver-bullet” explanations for inequality. In fact, when practitioners rely on a single area of research to develop interventions, this limited focus can conceal the interlocking sources of social inequality and thereby hinder the efforts of communities, governments, and organizations to improve outcomes in education and health.

The sociocultural self model begins to bridge this individual-structure divide by focusing on how individuals and structures mutually influence each other and by recognizing that they are best analyzed together. Beyond the principle of mutual constitution, the sociocultural self model takes into account how people's previous life experiences shape their understandings of who they are and who they envision themselves to be in the future. Further, it delineates how these particular understandings guide how people make sense of their worlds and how they interpret and respond to

a given situation. Taking these insights into account means that behavioral change cannot occur in a vacuum or with a “one-size-fits-all” approach. Effectively encouraging individuals to complete homework or to eat vegetables requires also considering whether these behaviors are relevant or meaningful to the socioculturally shaped selves that are relevant in the situation. If the desired behavior (e.g., completing homework) is not viewed as self-relevant or as part of one’s self, then this model provides a blueprint for considering what changes are necessary for the desired behavior to become self-relevant for the person in that situation. By providing these insights to supplement the traditional individual and structural models, the sociocultural self model allows for a more complete understanding of the types of behaviors (e.g., unhealthy diet, academic disengagement) that play a role in generating inequality and, in turn, provides the tools to develop effective and self-sustaining interventions.

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