1 Introduction

MICHAEL INZLICHT AND TONI SCHMADER

Stereotype threat is one of the most widely studied social psychological concepts of the past 20 years. In this introductory chapter, we provide a broad overview of the theory and introduce the goals of this volume. The significance of the theory lies in its ability to offer a more optimistic account of group differences in performance. By side-stepping the nature–nurture debate entirely, stereotype threat seeks to identify how factors in the immediate performance situation contribute to—if not create—the appearance of systematic differences in ability. Interest in these effects is not restricted to academic circles but has gained broad recognition in the popular press with applications beyond education to intergroup interactions, organizational behavior, and clinical diagnoses. We review the four main sections of the book: an examination of basic processes that trigger and mediate how negative stereotypes impair performance, a discussion of recent theoretical extensions to the original formulation of the theory, a review of the variety of groups in which stereotype threat has been documented, and a description of how the theory can be applied to alleviate the debilitating effects that negative stereotypes can have in academic contexts. The book is intended for anyone with an interest in the behavioral science of performance, whether from an academic, organizational, or social policy perspective. To facilitate application of basic theory to the field, each chapter provides policy recommendations stemming from the research reviewed. To inspire future research, we conclude the chapter with a review of unanswered questions that await further inquiry.

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The 21st century has brought with it unparalleled levels of diversity in the classroom and the workforce. It is now not uncommon to see in elementary, high school, and university classrooms—not to mention boardrooms and factory floors—a global mixture of ethnicities, races, genders, and religious affiliations. This is the case in countries all over the globe, and is only enhanced by technological advances that enable global communication, collaboration, and education. In addition, many countries have come to embrace not only the idea of basic human rights but also egalitarian principles of equal opportunity extended to each and every member of that society. With these increases in academic and economic opportunities came the
promise of not only greater intergroup harmony, but also the elimination of group disparities in academic performance, career opportunities, and levels of advancement. This promise has not been met.

Even a quick glance at national statistics reveals sobering results. According to the most recent data collected by the U.S.-based National Assessment of Educational Progress (2009), blacks and Latinos continue to trail whites in standardized measures of reading and mathematics at all age levels. Although this achievement gap has narrowed since these data were first collected in 1973, the race gap has not changed in any significant way since about 1990. Despite ever-increasing opportunities, then, measurable progress has not been made in performance in nearly two decades. Lest one concludes that this is an American phenomenon, data indicate that similar gaps exist worldwide, whether black-white achievement gaps in Canada (Duffy, 2004), socioeconomic gaps in France (Croizet & Millet, 2011, Chapter 12, this volume), Christian-Muslim gaps in the Netherlands (Levels & Dronkers, 2008), or Ashkenazi-Sephardic gaps in Israel (Peleg & Adler, 1977).

Data reveal some similarities in the gender gap in math and science achievement and engagement. Although there is only a narrow gender gap in standard measures of math achievement in high school (National Assessment of Educational Progress, 2009), this gap is large and significant on university entrance tests like the Scholastic Assessment Test (SAT; College Board, 2010). What is more problematic, perhaps, is that this gender gap has not diminished since 1994, despite women now being better high school students overall, over-representing men in the top 10% of their 2010 classes. Women also remain a minority in the fields of science, technology, engineering, and mathematics, earning about 25% of the highest degrees in these fields despite approaching equality with men in the fields of medicine, business, and law. Even in fields in which women are more evenly represented, there is still a dearth of women in top leadership positions (Eagly & Carli, 2007).

WHAT CAUSES THE ACHIEVEMENT GAP?

Standard explanations for these disparities, vehemently debated in the scientific community and popular press, typically invoke either nature or nurture, either biological and genetic explanations, or ones based on culture and socialization. In their controversial book, The Bell Curve, for example, Herrnstein and Murray (1994) claim that the race gap in academic achievement has at its root real biological differences that contribute to variation in IQ. Blacks and Latinos, in other words, perform worse than whites because they are genetically endowed with inferior intelligence. Similar suggestions have been made to explain women's under-representation in math and sciences (Benbow & Stanley, 1982), with Harvard University president Lawrence Summers' controversial allusions to women's inferior intrinsic aptitude being only the most high-profile of recent examples.

On the nurture side of the debate is the view that racial, ethnic, and religious minorities and women are products of sociocultural environments that frustrate
the development of the appropriate skills, values, and motivation needed for success. For instance, being raised in a low-income family—which is highly associated with race—often means having less access to educational resources, in addition to limited access to health care and nutrition, both of which contribute to lower academic performance (e.g. Kleinman et al., 2002; Kozol, 1991; see Croizet & Millet, 2011, Chapter 12, this volume). Cultural and socialization pressures may also contribute to the gap. Mothers, for example, are more likely to encourage their sons than daughters to work hard in math and science, despite evidence indicating that their daughters are as skilled in these domains as their sons (Eccles, Jacobs, & Harold, 1990).

Although these existing explanations differ along a continuum of nature versus nurture, they share a presumption that a majority of our population, due to their gender, racial, or ethnic background, lacks the potential to achieve academic and career success to the same degree as their white (and Asian) male counterparts. The message coming from these explanations, in other words, is that, whether due to biology or the accrued effects of upbringing, people belonging to marginalized groups have less ability. These explanations also share an assumption that the evidence most often the subject of debate—scores on standardized tests of intelligence or achievement—is a valid and unbiased indicator of a person’s true ability. Indeed, the assessment literature has taken great pains to eliminate cultural bias in the selection and construction of test items, and research suggests that race differences persist even after controlling for socioeconomic status (Loehlin, Lindzey, & Spuhler, 1975).

But the theory that is the focus of the present volume assumes that even culturally fair and valid measures can still be subject to variables that systematically impair performance for some individuals and not others. Even if we could match students on genetic predispositions, educational background, and personal values, something in the situation itself—be that the testing center, the laboratory, or the boardroom—holds marginalized groups back from reaching their full potential.

This something is the existence of social stereotypes. During the past 15 years, research suggests that the mere existence of stereotypes asserting the intellectual inferiority of marginalized groups creates a threatening intellectual environment for stigmatized individuals—a climate in which anything they say or do could be interpreted through the lens of low expectations. This stereotype threat (Steele, 1997) can ultimately interfere with intellectual functioning and academic engagement, setting the stage for later differences in educational attainment, career choice, and job advancement. The edited volume you have in your hand presents a focused look on this situational explanation, on stereotype threat.

STEREOTYPE THREAT

Stereotype threat (Steele & Aronson, 1995) is defined as a situational predicament in which individuals are at risk, by dint of their actions or behaviors, of confirming negative stereotypes about their group. It is the resulting sense that one might be
judged in terms of a negative stereotype that is “in the air” (Steele, 1997). For example, because African Americans are well aware of the negative stereotypes impugning their intellectual ability, whenever they are in a situation requiring them to display said ability—say, a standardized testing situation—they may fear confirming the stereotype. Ironically, this fear of stereotype confirmation can hijack the cognitive systems required for optimal performance and result in low test performance (Schmader, Johns, & Forbes, 2008; see Schmader & Beilock, 2011, Chapter 3, this volume). In the original studies documenting this effect, Steele and Aronson (1995) endeavored to show that if situations themselves are creating or magnifying group differences in performance, then black college students should perform much better when the situation is cast in a less stereotype relevant way. Indeed, African Americans in their sample performed much better on a set of verbal ability problems when they were described as a simple laboratory task than when they were described as a diagnostic measure of intelligence.

Research over the past 15 years has shown, time and time again, that stereotype threat contributes to low performance not only among African Americans (Steele & Aronson, 1995), but also Latinos (Gonzales, Blanton, & Williams, 2002) and the poor in standardized testing (Croizet & Millet, 2011, Chapter 12, this volume), women in math and science (Logel, Peach & Spencer, 2011, Chapter 10, this volume), the elderly in memory (Chasteen, Kang, & Remedios, 2011, Chapter 13, this volume), and whites in athletics (Stone, Chalabaev, & Harrison, 2011, Chapter 14, this volume). This is a robust phenomenon, then, well-replicated in different groups, on different tasks, and in different countries. Even groups that are not traditionally marginalized in society (e.g., white men) can exhibit these effects if they are led to believe that their performance on a math test is being used to examine Asian superiority at math (Aronson et al., 1999).

The phenomenon of stereotype threat has proved to be incredibly popular in academic psychology as well as among the lay public. The first empirical article on stereotype threat was published in the Journal of Personality and Social Psychology in 1995, by Claude Steele and Joshua Aronson and is now widely hailed as a modern classic. For example, when the editors of Psychological Inquiry asked prominent social psychologists to nominate articles published in the 1990s that are now considered classics of the field, more than one contributor nominated the Steele and Aronson (1995) paper (Devine & Brodish, 2003; Fiske, 2003). And it is no wonder. Since the appearance of this first paper, stereotype threat has become one of the most vigorously explored topics of the past decade in social psychology. Searching for metrics of impact in October 2010 confirms the importance of this seminal work. According to PsycInfo, the Steele and Aronson article has been cited over 1,200 times, with over 450 separate publications having “stereotype threat” as keywords. A Google search with the keywords “stereotype threat” generates 66,000 unique hits; an entire website is devoted to summarizing the empirical science on the topic (www.ReducingStereotypeThreat.org), and dozens of symposia have been centered on the topic of stereotype threat in conferences worldwide. There is no
indication that this frantic rate of citation will abate; to the contrary, it is likely to increase.

But the interest in stereotype threat is not confined to academic debates among social psychologists. The audience for this research is broad and extends beyond academic psychology to other disciplines and beyond the walls of academia altogether to members of the public. The work has been the subject of essays in the Atlantic Monthly and New Yorker, featured in a segment on the television show 20/20, and discussed in articles in the New York Times, Washington Post, Los Angeles Times, and the Wall Street Journal, among others. It has also sparked research in other disciplines on issues ranging from race differences in athletic performance to the best methods for administering diagnostic tests when studying cognitive deficits due to aging, disease, or drug use. In 2005, when the National Academies of Science held a convocation to discuss research on Biological, Social, and Organizational Contributions to Science and Engineering Success, stereotype threat was one of the topics of interest.

Why has this topic been of so much interest? According to Fiske (2003), one of the reasons an idea takes hold is that it makes people uncomfortable, pointing to a natural hole in the literature that people did not realize even existed. There are other reasons, of course. Part of the enthusiasm, we believe, stems from the fact that the theory of stereotype threat avoids the nature versus nurture trap by suggesting that situations themselves can bring about apparent group differences in performance. Although the existence of stereotype threat does not preclude other factors that could also contribute to group differences in performance, it avoids labeling people with trait-like, immutable abilities, which, for underperforming groups, can only lead to frustration and disidentification (Dweck, 1999). Instead, it points to the power of the situation—the very basis of much social-psychological theorizing—by suggesting that the mere existence and awareness of cultural stereotypes creates a fundamentally different experience for those who are stereotyped to be less competent, an experience that systematically impairs their ability to perform up to their potential. The appealing consequence of this situational approach is that the performance of under-represented groups can be increased, sometimes dramatically, by relatively simple interventions designed to remove those threats. So, now we can do something about underperformance. Although we cannot change people’s biology or upbringing, we can change the situations they find themselves in. And more and more, research is doing just this, finding that even subtle changes to situations can have profound effects on the real-life performance of traditionally underperforming groups (see Cohen, Purdie-Vaughns, & Garcia, 2011, Chapter 18, this volume).

Certainly another aspect of its appeal is the phenomenon’s broad applicability. Not long after publication of this first paper, researchers started noticing that the theory could be applied to many different groups and to many different situations. So, there is now evidence that stereotype threat could be used to explain the performance not only of blacks and women in school, but also of gay daycare workers
We also know that threat can be elicited in a broad range of situational cues, from the mere presence of men in a room (Inzlicht & Ben-Zeev, 2000) to the content of television commercials (Davies, Spencer, Quinn, & Gerhardstein, 2002; see Murphy & Jones Taylor, 2011, Chapter 2, this volume). This broad applicability then spawned more research, the most important of which may be how and why stereotype threat operates as it does, exploring not only the psychological mechanisms (Schmader & Beilock, 2011, Chapter 3, this volume), but also the biological ones (Berry Mendes & Jamieson, 2011, Chapter 4, this volume). Despite this broad appeal, however, not one single book or edited volume has been devoted to stereotype. Not until now, that is.

ORGANIZATION OF THE BOOK

Stereotype Threat: Theory, Process, and Application offers to fill this need by examining this popular topic not only at the level of basic processes and theory, but also at the level of application in the real world. It provides a contemporary and systematic treatment of research on the impact of negative stereotypes and devalued social identities on performance, engagement, sense of belonging, and self-control. We believe that now is the right time for such an edited volume. Work on the theory is sufficiently mature—we have insights into the mechanics of the process, including issues of mediation and moderation—and so perhaps the time has come to take a step back to reflect on what we have accomplished thus far and how to move forward in the future.

It is our hope that this volume will afford you the opportunity to do just that.

Stereotype Threat: Theory, Process, and Application is organized into four sections, containing two to five chapters each. The first section, Basic Processes, introduces definitions and conceptualizations of stereotype threat, including issues related to environmental triggers, questions of mechanism, and the biology and neuroscience of threat. Section two, Theoretical Extensions, explores how the initial theory has been refined to acknowledge stereotype threats (plural) as opposed to threat (singular), how threat affects a sense of belonging, how it has implications that extend beyond the stereotyped domain, and the comparison of performance impairments due to motivational versus automated processes. Section three, Manifestations of Stereotype Threat, shows the breadth of the theory by exploring many of the different groups and performances to which the phenomenon of stereotype threat has been applied, including women in math and the workplace, athletes, the elderly, and even whites trying to control their prejudice. Section four, Stereotype Threat in the Real World, examines issues of applied importance, taking a critical approach to understanding the extent to which stereotype threat has real-world consequences outside the lab, and the personal and institutional strategies needed to reduce stereotype threat and unlock the hidden potential of those who are socially stigmatized. Finally, the originator of the theory, Claude Steele, provides a final essay in which he reflects upon the theory, from its origin to its implication.
INTENDED AUDIENCE AND SPECIAL FEATURES

We edited this book thinking that it would have a number of audiences. First, this book is for an academic audience, for whom it can serve as a handbook for not only social, developmental, and organizational psychologists, but also for other social scientists, such as sociologists and education researchers. This book could serve as a text in both undergraduate and graduate seminars in social psychology, education, public policy, organizational behavior, and sociology. We hope that it will also act as a source book for psychologists interested in conducting research on stereotype and social identity threat. Second, this book is also for those people who are involved in creating public policy, be that in education, immigration, or business practice. Each chapter of this book has a government policy audience in mind, with an explicit discussion of the effective strategies for equipping students and workers with tools they can use to combat the negative effects of stereotypes and suggestions for specific methods and interventions that bridge the gap between theory and practice. Finally, this book is for people on the ground, the teachers and managers who want to provide a safe classroom and workplace so that their students and employees can thrive and flourish.

This book incorporates a number of special features that we think you will appreciate. First, all the chapters in this book are short, very short. Taking a page from the enormous success of the journal Psychological Science, we have asked (and sometimes cajoled!) authors to keep their word count down. We do this because we believe that authors do their best writing and thinking when they need to get to their main points quickly. We think you’ll agree that the authors have succeeded here, with the chapters being a real pleasure to read. All chapters also include short abstracts, so that even casual readers can quickly peruse chapters to find what they’re looking for. Abstracts are useful, and we’re unsure why it is not common custom to include them in edited books. Finally, each chapter contains what we are calling “policy boxes.” These contain short paragraphs, written in plain language, describing the public policy implications of the research described in the chapter. These policy boxes are self-contained units in which the reader can quickly get a snapshot of the policy implications for each chapter, without having to dig too deeply. We hope that these will be especially useful to policy makers, to teachers and managers, and to undergraduate students.

FUTURE DIRECTIONS

Over a decade of research on the phenomenon of stereotype threat has taught us a great deal about when and where it arises, the mechanisms that underlie its effects, and the ways to alleviate it. You can think of this book as a “halftime report” on the state of that research, but let’s also spend a few minutes mapping out the strategy for the next stage of inquiry. Of course, doing so requires a recognition that many interesting lines of research are already under way that we simply didn’t have the time or space to include in this volume.
First, stereotype threat has its roots as a theory applied to educational outcomes and experiences, specifically when it comes to test performance. But there is a need for more research examining other ways in which the threat of academic inferiority shapes processes of identification and motivation, ultimately affecting people's decisions of when to enter and exit certain academic spheres. Such research needs to explore when situations of threat motivate additional effort in an attempt to disconfirm the stereotype (Forbes & Schmader, 2010; Jamieson & Harkins, 2007) as opposed to a withdrawal of effort as a means of self-handicapping (Keller, 2002; Stone, 2002) or a decision to avoid that domain altogether (Cheryan, Plaut, Davies, & Steele, 2009). Emerging models of the role of motivation might further capitalize by considering how people negotiate a threatened sense of identity (Pronin, Steele, & Ross, 2004; Rosenthal & Crisp, 2006; Rydell, McConnell, & Beilock, 2009; von Hippel et al., 2005). In essence, this also touches on the need for more research to distinguish self-reputational threat (“I don’t want to be seen stereotypically”) from group-reputational threat (“I don’t want to contribute to a stereotype about my group”), a distinction nicely laid out in Shapiro’s chapter (2011, Chapter 5, this volume; see also Steele, 2011, Chapter 19, this volume).

Another future direction for research on stereotype threat as it is studied in educational contexts is to consider the role it plays not just in demonstrating performance on tests, but also in learning new information. Rydell and colleagues (Rydell, Rydell, & Boucher, 2010; Rydell, Shiffrin, Boucher, Van Loo, & Rydell, 2010) have recent research showing learning impairments under threat that can be distinguished from effects on performance. Other recent work reveals that young girls’ (but not boys’) math performance is predicted by the math anxiety of their female teachers (Beilock, Gunderson, Ramirez, & Levine, 2010). So, gender stereotypes may affect not only how academic content and strategies are learned, but also how emotional reactions to that content are learned as well. The positive implication, however, should be that successful role models might better model effective coping strategies that counteract threat. Delineating the ways in which threat affects learning is an exciting new area of inquiry.

A third direction for future research is to expand upon our understanding of the physiological and neurological mechanisms that underlie acute experiences of threat. Mendes and Jamieson (2011, Chapter 4, this volume) provide the foundational overview of research in this area. But more work is needed to then consider how chronic exposure to stereotype threatening contexts could lead to negative health consequences as a result of frequent activation of a stress response. Such work would have implications across a range of situations as the threat of negative stereotypes can be encountered in any cross-group interaction (Richeson & Shelton, 2011, Chapter 15, this volume). New research in this area could be informed by parallel inquiries into the health consequences of having lower socioeconomic status (Miller, Chen, & Cole, 2009), as some of these effects might be partly accounted for by lack of resources but partly by those processes that are the focus of the volume.

Finally, as research on stereotype threat expands outward from an original focus on academic testing, there is a greater need to understand the other consequences...
of the basic psychological processes elicited in threat situations. Inzlicht, Tullett, and Gutsell (2011, Chapter 7, this volume) identify how the impairments to basic executive-level cognitive processes can then have implications for decision making and the control of negative or maladaptive impulses. These broader effects on self-regulatory processes have profound implications for how stereotype threat can be applied to a variety of domains in which threat effects have not yet been investigated. For example, in health care interactions, does threat experienced by stigmatized patients discussing treatment with nonstigmatized doctors impair their interpretation of, as well as their ability and motivation to follow, a recommended change in health behavior? In close relationships, does the experience of stereotype threat lead to interpersonal conflict that can counteract the potential for social support from a partner? In an organizational context, how does the experience of stereotype threat affect decision making in ways that can impair productivity? Work on these broader consequences might also consider the unique ways in which threat might be experienced by those with concealable stigmas (Quinn, Kahng, & Crocker, 2004; Smart & Wegner, 1999). And most importantly, once identifying these effects, what remedies can be transported from the foundational work on academic interventions to alleviate threat in these broader contexts?

To sum up, research on stereotype threat continues to be a vibrant growth industry for academic research. The power of the original theory to explain the experience of being socially devalued and negatively stereotyped is still being fully realized. It is our sincere hope that reading through the compelling chapters of this book will spark your interest in expanding the theoretical and practical implications of these ideas.

References


Stereotype Threat

Introduction