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Incorporating Social-Marketing Insights Into Prejudice Research: Advancing Theory and Demonstrating Real-World Applications

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Abstract

Prejudice researchers have proposed a number of methods to reduce prejudice, drawing on and, in turn, contributing to our theoretical understanding of prejudice. Despite this progress, relatively few of these methods have been shown to reliably improve intergroup relations in real-world settings, resulting in a gap between our theoretical understanding of prejudice and real-world applications of prejudice-reduction methods. In this article, we suggest that incorporating principles from another field, social marketing, into prejudice research can help address this gap. Specifically, we describe three social-marketing principles and discuss how each could be used by prejudice researchers. Several areas for future research inspired by these principles are discussed. We suggest that a hybrid approach to research that uses both theory-based and problem-based principles can provide additional tools for field practitioners aiming to improve intergroup relations while leading to new advances in social-psychological theory.

Keywords

prejudice and discrimination, social marketing

Prejudice and discrimination are serious social problems: Members of historically marginalized social groups, including people of color, LGBTQ individuals, religious minorities, immigrants, people with disabilities, and many others receive more negative treatment and experience more stress than individuals belonging to historically advantaged groups (Berchick, Hood, & Barnett, 2018; Lee, Perez, Boykin, & Mendoza-Denton, 2019; Meyer, 2003; Robert Johnson Wood Foundation, 2018). In light of their social impact and fundamental basis in human psychology, prejudice and discrimination have been core topics of social-psychological research for many decades. This research has greatly expanded our understanding of the variables that affect prejudice, including those that might be instrumental for reducing prejudice (see Kite & Whitley, 2016). However, relatively little research has examined whether the proposed prejudice-reduction methods effectively reduce manifestations of prejudice in the real world (e.g., schools, organizations, cities; see Paluck, 2016; Paluck & Green, 2009). This dearth of research limits both our understanding of prejudice and discrimination and the relevance of the science for addressing these problems in the real world. Practitioners in the field aiming to improve intergroup relations often lack information about whether and how a given prejudice-reduction method established in the scientific literature can be used in real-world settings. In this article, we propose that by incorporating principles from a disparate field, social marketing, prejudice researchers can provide compelling evidence for the applicability of prejudice-reduction methods while continuing to advance psychological theory.

We first discuss how prejudice-reduction methods have resulted from and, in turn, contributed to theoretical accounts of stereotyping and prejudice and why these methods have not been tested extensively in real-world settings. We then introduce a few key principles from social marketing, a domain that uses marketing

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principles to influence behaviors to address social problems. We describe in detail how these principles can be put into practice by psychologists. Finally, we describe a number of research questions that would both advance psychological theory and help to address prejudice and discrimination in the real world. Although this article focuses on prejudice and discrimination, we believe that the issues we identify and solutions we propose are of broad interest to psychologists in other research areas.

Theory-Based and Problem-Based Approaches to Prejudice Research

Current prejudice research

In his seminal work, Allport (1954) both describes prejudice and discrimination and proposes a number of potential solutions to address these phenomena, most notably the contact hypothesis. There is abundant empirical evidence suggesting that social interaction between members of different social groups leads to improvements in intergroup attitudes, especially when certain conditions are met: equal status, common goals, cooperation, and authority support (Pettigrew & Tropp, 2006; Pettigrew, Tropp, Wagner, & Christ, 2011). As evidence supporting the contact hypothesis has accumulated, our understanding of it has been refined: According to a meta-analysis of contact studies by Pettigrew and Tropp (2006), the conditions of successful contact proposed by Allport to operate independently might be better thought of as an interrelated set. These findings exemplify how research has advanced our knowledge of prejudice over time: We have developed new empirical questions on the basis of existing theories, and results from studies testing these questions have, in turn, refined our understanding of these theories. In this article, we refer to this process of advancing science as the *theory-based approach*.

Researchers have proposed numerous other prejudice-reduction methods using this approach (for reviews, see Amodio & Devine, 2005; Murrar, Gavac, & Brauer, 2017; Paluck & Green, 2009). One well-known example is social categorization: Noting that people behave positively toward in-group members and negatively toward out-group members, even when the groups are not inherently meaningful, researchers have developed methods of prejudice reduction that rely on changing group boundaries (Sherif, Harvey, White, Hood, & Sherif, 1961). These methods encourage individuals to see themselves as belonging to the same overarching group (i.e., common in-group identity model; Gaertner & Dovidio, 2000) or to see themselves and others as belonging to many different social groups (i.e., multiple social categorizations; Crisp & Hewstone, 2007). The two methods also refine and reinforce our theoretical understanding of prejudice by illustrating the role that categorization processes play in shaping out-group attitudes, paving the way for sociocognitive approaches to intergroup phenomena.

There are many other theory-based research programs in the prejudice domain. The development of implicit measures of prejudice, for example, demonstrated that automatic associations with particular social groups are an important component of intergroup attitudes, even when they are not consciously identified (Banaji & Greenwald, 2016; Dovidio, Kawakami, & Gaertner, 2002). Another example is research showing that a given emotional state can both be evoked by an intergroup encounter and/or predict intergroup behavior (Dasgupta, DeSteno, Williams, & Hunsinger, 2009; Esses, Haddock, & Zanna, 1993). Furthermore, we now know that people have specific emotional reactions to particular social groups (Cottrell & Neuberg, 2005; Fiske, Cuddy, Glick, & Xu, 2002; Tapias, Glaser, Keltner, Vasquez, & Wickens, 2007). Together, these studies have shown the relevance of implicit processes and emotions in predicting intergroup attitudes and behavior.

Prejudice-reduction praxis

Although the theory-based approach to prejudice research has substantially advanced our theoretical understanding of intergroup phenomena, it remains unclear to what extent the prejudice-reduction methods developed using this approach have any bearing on real-world human behavior. The prejudice-reduction methods discussed above have primarily been tested in lab settings, and relatively few methods have been shown to reliably reduce prejudice and discrimination in the real world (Paluck & Green, 2009). To assess real-world impact, we defined the following criteria: (a) random assignment to conditions, (b) a delay of at least 1 month before the measurement of the outcomes, and (c) the use of consequential outcomes (e.g., meaningful, real-world behaviors; outcomes showing that individuals belonging to marginalized groups actually have a better experience; grades; turnover; dropouts; and mental and physical health).

We then searched the literature for studies on prejudice reduction that meet these criteria.[1] We found only one: a test of the gender-bias habit-breaking workshop by Devine et al. (2017) in which participants are taught several mental techniques to address unconscious bias. Even for this article, however, the analyses were exploratory, only one of the outcome variables showed a positive effect, and this effect did not meet conventional levels of statistical significance.[2] This analysis suggests that it is not well understood whether and under which conditions the prejudice-reduction methods discussed in the scientific literature extend to real-world situations. There is thus a substantial gap in our theoretical understanding of these methods and intergroup relations in natural settings.

To illustrate this point, consider again the contact hypothesis: The meta-analysis by Pettigrew and Tropp (2006) comprised more than 500 studies. A more recent review, which was limited to studies with random assignments to conditions and delayed outcome measures (i.e., more than 1 day after treatment), identified just 27 such studies (and only 14 had a delay of a month or more; Paluck, Green, & Green, 2018). The review found significantly weaker effects of intergroup contact than those reported in the prior meta-analysis and provided suggestive evidence that the effectiveness of contact interventions depends on the target group under consideration. The authors noted that not a single experimental study tested the effectiveness of intergroup contact with racial/ethnic minorities using participants over the age of 25 years. They also noted that none of the studies experimentally manipulated any of the four conditions of successful contact proposed by Allport (1954). Thus, although the prejudice literature considers intergroup contact to be an effective and well-established way of reducing prejudice, the utility of this approach for stoking more positive attitudes and behaviors in the real world remains relatively unknown.

Many efforts exist to improve intergroup relations in real-world settings, but very few of these efforts are assessed, in part because they are usually implemented by field practitioners and not prejudice researchers (Bezrukova, Spell, Perry, & Jehn, 2016; Chang et al., 2019). To the extent that they have been assessed, the results are not particularly encouraging: Many of these methods are ineffective (e.g., mandatory diversity trainings), and some even appear to be counterproductive (e.g., discussion-based approaches or grievance systems; Brauer, Judd, & Jacquelin, 2001; Dobbin & Kalev, 2016, 2018; Forscher et al., 2019). The prejudice literature provides field practitioners some guidance, but ultimately practitioners have little information about whether a given prejudice-reduction method will have the intended impact in real-world situations.

This lack of information has important consequences, as it can lead practitioners to craft solutions that are theoretically sound but counterproductive in practice. Consider hiring tests: standardized assessments of ability completed by prospective employees (Bateson, Wirtz, Burke, & Vaughan, 2013; Knight, 2017). These tests were developed and popularized in light of evidence of bias in hiring decisions, including against Black individuals (Bertrand & Mullainathan, 2004) and women applying to jobs in science, technology, engineering, and mathematics (STEM; Moss-Racusin, Dovidio, Brescoll, Graham, & Handelsman, 2012). However, evidence suggests that hiring tests decrease the proportion of racial/ethnic minorities and women hired in the businesses that use them (Dobbin & Kalev, 2016). These tests are often used selectively, and, even when implemented universally, their results can be cherry-picked or weighted such that they disadvantage racial/ethnic minority or female candidates (e.g., a strong interview may “make up for” poor performance on such a test). One explanation for this effect is the finding that individuals who believe they are using an objective standard are more likely to think their subjective perspectives are actually objective (Uhlmann & Cohen, 2007). This example highlights how methods based on relevant theories can have unanticipated results. One way to address this problem is by conducting more real-world tests of prejudice-reduction methods, enhancing our theoretical understanding of these methods while helping practitioners select those that are likely to have their intended impact.

Using a theory-based approach, prejudice researchers have identified many variables that can play a role in prejudice and discrimination, but relatively little research examines whether these variables actually do play a role in real-world situations or whether they can be leveraged to improve intergroup relations. Such a research gap would be alarming to social psychologists in any research domain but may be especially egregious in the intergroup domain because prejudice in the real world is fundamentally communicated through behavior (Carr, Dweck, & Pauker, 2012).[3] We argue that incorporating principles from social marketing, a problem-based discipline, could help to bridge this gap.

Social marketing

Problem-based research examines empirical questions based on observations of phenomena in the real world (Mortensen & Cialdini, 2010). Such research has been described as an opportunity to demonstrate that a given variable identified in the lab can be applied to a real-world problem (Bickman & Rog, 2009). However, some social psychologists have gone further, noting how problem-based research can be and has been used to advance theory (e.g., Harackiewicz & Priniski, 2018; Paluck & Cialdini, 2011; Yeager et al., 2016). The importance of problem-based research that has a direct bearing on real-world problems has been highlighted both within the field (Fox, 2016) and externally, as with President Obama’s 2015 Executive Order calling for behavioral-science research that can inform social policy (Executive Order 13707, 2015). We propose that prejudice researchers incorporate certain principles from another field—social marketing—into their work: By adopting social-marketing strategies and methods, prejudice researchers can bridge the gap between existing empirical work and real-world applications while advancing our theoretical understanding of intergroup attitudes and behaviors.

Social marketing is a field primarily concerned with changing human behavior (W. Smith, 2002). Social marketers use a systematic approach to craft interventions that seek to increase the incidence of positive, prosocial behaviors (e.g., eating a healthy diet, recycling, adopting shelter animals) and/or decrease the incidence of negative, antisocial behaviors (e.g., littering, harassment, drunk driving; Kotler & Zaltman, 1971). The basic idea of social marketing is to conceptualize the desirable behavior as a “product” to sell and make that behavior appear more appealing than the “competition” (i.e., the current, undesirable behavior) through adaptations of traditional marketing strategies. Rather than trying to identify general principles in human behavior, social-marketing interventions are designed to change specific behaviors among specific individuals within a specific setting at a specific time (Lee & Kotler, 2015). Such interventions have been applied to a wide range of problems, including slowing the spread of invasive species by encouraging boat owners in the midwestern United States to remove aquatic plants from their boat trailers (Aschkenase & Chenoweth, 2010) and reducing water usage in California during the drought that began in 2012 (McDonald, 2015).

The social-marketing approach comprises many elements, and presenting all of these elements would go beyond the scope of this article. Below we discuss three social-marketing principles that are especially relevant for prejudice researchers and psychologists more generally: (a) choosing a specific, measurable, meaningful behavior to be targeted by the intervention; (b) identifying a specific, relevant target audience; and (c) considering the barriers and benefits that affect the target audience’s behaviors. We briefly summarize each of these principles and then describe how social marketers would use them to develop interventions aiming to improve intergroup relations. We conclude by comparing the social-marketing approach to current prejudice research.

It is not our goal to convince all intergroup researchers to limit themselves to designing and testing large-scale interventions in the field. As we explain in the final sections of this article, adopting a problem-based approach informed by the social-marketing principles we describe will direct researchers’ attention to numerous well-defined theoretical problems that can be tested in smaller-scale lab, field, and online experiments.

Choose a Specific, Measurable, Influential Target Behavior

The social-marketing approach

When crafting an intervention, social marketers select a specific behavior to target or sometimes a small number of closely related behaviors (Lee & Kotler, 2015). The first question that social marketers ask is, in its simplest form, is “What exactly do we want people to do as a result of our intervention?” Only if an intervention meets a predetermined goal in terms of adopting the target behavior is it considered successful (e.g., increasing recycling by 3%). Changes in attitudes or beliefs are of secondary importance, often seen as a means of achieving the primary goal of behavior change rather than an end unto themselves. For example, a proenvironmental social-marketing intervention that increased concern about climate change but did not lead to an adoption of targeted “green” behaviors would not be considered a success.

Which target behavior to select is not always obvious: For example, should a proenvironmental intervention target reducing utility usage, driving less frequently, or buying locally sourced foods? To simplify the decision, social marketers have established three key dimensions along which different possible target behaviors can be evaluated: impact, probability, and market opportunity (see Table 1 for a description of these dimensions). Using existing data (e.g., objective carbon dioxide emissions) or by collecting new information (e.g., asking community members how likely they are to adopt the behavior), social marketers will assign each behavior a numeric value on each of the key dimensions and then identify which behavior has optimal features. One common method is to use the same rating scale for each dimension considered: These scores can then be averaged, and the behavior with the highest average score will be selected as the target behavior, that is, the behavior that social marketers want people to adopt.

Although behavior is of central and principal importance in the social-marketing approach, beliefs and knowledge can also play an important role (e.g., Hull et al., 2017). In a campaign targeting smoking cessation, for example, social marketers may wonder whether smokers understand the health impacts associated with smoking and whether they think smoking makes them look cool. Relevant information about people’s beliefs and knowledge could lead the social marketers to focus on changing perceptions of smoking rather than reporting lung cancer statistics. Although having people adopt the target behavior is the ultimate indicator of a

Table 1. Dimensions Used to Evaluate Different Potential Target Behaviors

Dimension	Description
Key	
Impact	The extent to which the effect of changing the behavior is consequential (i.e., has a large effect)
Probability[a]	How likely people are to adopt the desirable behavior
Market opportunity	How many people currently do not engage in the desirable behavior
Secondary	
Measurability	The extent to which the desirable behavior can be unambiguously measured and experienced
Market supply	The extent to which the desirable behavior is already encouraged by other individuals/entities
Nondivisibility[b]	The desirable behavior cannot be broken down into smaller, composite behaviors
End state	The extent to which the desirable behavior has a direct bearing on the problem under consideration (i.e., high validity)

Note: Based on Lee and Kotler (2015) and McKenzie-Mohr (2011).
[a]Also referred to as *willingness*. [b]Also referred to as *nonreducibility*.

campaign's success, the campaign may have additional objectives regarding salient knowledge and beliefs that can contribute to behavior change.

If a team of social marketers were hired to improve intergroup relations in a specific setting, they would begin by making a list of the many behaviors to potentially be targeted by such an intervention. Should they attempt to increase inclusive behaviors or decrease discriminatory behaviors? Is there a particular situation in which bias occurs frequently and that should thus be targeted (e.g., performance reviews, team meetings, informal social events)? Should the goal be to change behaviors toward ethnic minorities, women, members of the LGBTQ community, religious minorities, or some other social group? See Table 2 for a list of some intergroup behaviors that might be the target of an intervention.

Once the social marketers assembled such a list, they would conduct background research to determine how each of these behaviors ranks in terms of its impact, probability of adoption, and market opportunity (and possibly the secondary dimensions mentioned in Table 1). Decreasing the occurrence of overtly discriminatory behavior might have a significant impact, but it could be that few individuals in that environment engage in such behavior. On the other hand, getting teachers to grade exam copies blindly is relatively easy but may have little impact on intergroup relations generally. Accordingly, each behavior would be assigned a score on each dimension, and then these scores would be averaged, a process that facilitates identification of the specific, desirable target behavior to be promoted. From here, the social-marketing team would create an intervention specifically designed to change this behavior (or a small subset of interrelated behaviors). If two rather different behaviors ranked most highly, they would be addressed in two separate campaigns: It is better to have two targeted approaches than one rather unfocused intervention (Lee & Kotler, 2015). It could be the case that these two behaviors have very different barriers and benefits (see below) or rely on different knowledge or beliefs, requiring that they be addressed separately.

Comparing the social-marketing approach to current prejudice research

Although behavior is the primary means by which prejudice is communicated in everyday interpersonal interaction (Carr et al., 2012), prejudice research has historically targeted biases: explicit or implicit negative attitudes, beliefs, affect, and/or concepts associated with particular out-groups or out-groups in general. It is assumed that these biases are ultimately responsible for the positive or negative intergroup behaviors people engage in. Thus, the goal of prejudice research has broadly been to identify the variables that affect bias and examine which of these variables can be leveraged to reduce bias. A change in bias is believed to trigger a change in behavior. For example, once people categorize their social environment differently and have come to see the in-group and the out-group as being part of one superordinate category (Gaertner & Dovidio, 2000), they are assumed to behave in less biased ways (e.g., discriminate less in hiring situations, engage in fewer microaggressions, display more positive nonverbal behaviors).

This reliance on bias is somewhat surprising given the scientific evidence that illustrates the weak link between bias, as defined above, and behavior. For example, in a classic study, Lapiere (1934) showed that a Chinese couple was denied service at hotels or restaurants only once despite the overwhelming majority of these establishments reporting they would refuse

Table 2. Potential Target Intergroup Behaviors

Settings	Potential behaviors
Informal, community, social	• Learn the terms that are perceived as offensive/hurtful by others and then abstain from using these terms. • Be friendly and welcoming; sit close; start a conversation. • Attend diversity-outreach events. • Speak up when you witness discrimination/exclusion as a bystander.
In classrooms, group projects, team meetings	• Let people of all groups finish their thoughts; actively listen to everyone; do not interrupt. • Validate others by referring to what they have said before. • Stop making negative facial expressions while members of certain groups talk. • Deliberately form more diverse working groups.
In leadership roles (educational)	• Make sure all punishments and disciplinary actions are applied equally to students from all backgrounds. • Grade exam copies blindly. • Establish eye contact and ask follow-up questions with the same frequency for all students. • Feature books, articles, or other contributions from prominent scholars from diverse backgrounds.
In leadership roles (corporate)	• Actively recruit candidates belonging to marginalized groups (e.g., job fairs at historically Black colleges). • Establish a list of qualifications for a position to be filled and rate candidates on these qualifications. • Anonymize resumes and cover letters before evaluating job candidates. • Treat all candidates alike during the job interviews (e.g., ask the same questions, same nonverbal behavior). • Distribute rewards, bonuses, promotions, privileges, offices, and parking spots according to preestablished criteria. • Be equally encouraging and supportive to all employees. • Ensure that facilities and events are accessible and welcoming to people from all backgrounds. • Encourage social connections among employees from different social backgrounds.

service to people of Chinese descent when asked over the phone. Several reviews discuss the inconsistency between attitudes and behaviors (Ajzen, 1991; Wicker, 1969). Furthermore, recent meta-analyses have called into question the connection between implicit bias and discriminatory behavior (Forscher et al., 2019; Kurdi et al., 2019; Oswald, Mitchell, Blanton, & Jaccard, 2013). According to these reviews, there is not a single study that convincingly demonstrates that changes in implicit bias predict changes in discriminatory behavior. Some researchers use the term "value-action gap" to refer to the idea that we do not always live up to our own internal standards (Fishbein & Ajzen, 1975). Joule, Girandola, and Bernard (2007) used the expression "Good ideas do not always lead to proper behaviors" to describe the same phenomenon. Many behavior-change campaigns based on providing information or raising awareness are ineffective (Abrahamse, Steg, Vlek, & Rothengatter, 2005; Albarracín et al., 2005). In one recent example, telling participants to avoid bias or alerting them to the possibility of bias in general did not reduce their bias in an application-judgment task relative to those who did not receive this information (Axt, Casola, & Nosek, 2019). Walton and Wilson (2018) make a similar point, noting that behavior change requires a shift in subjective meaning making: the hypotheses people form about themselves, other people, and different situations. Together, these examples show that changing implicit and/or explicit biases cannot be assumed to be sufficient to change behavior.

Furthermore, additional psychological research has shown that changes in bias are not necessary to change behavior. People often base decisions about how to behave on cues in the social environment, particularly the behaviors of those around them (Miller & Prentice, 2016; Rivis & Sheeran, 2003; Tankard & Paluck, 2016). People often change their own behaviors to match the behaviors that are normative in their social environment, even if these behaviors do not necessarily correspond to their personal attitudes and beliefs. Thus, it is possible to change behavior without first shifting attitudes. Applied to prejudice specifically, strong antidiscrimination norms may reduce the frequency of discriminatory behaviors more effectively than interventions aiming to reduce biases among the individuals present in the social environment (Murrar, Campbell, & Brauer, 2019).

In sum, prejudice researchers have historically targeted intergroup biases, both implicit and explicit. This focus is based on the assumption that a reduction in bias will trigger a change in relevant intergroup behaviors. However, research has shown that changing biases is neither sufficient nor necessary to change behavior. When behavioral outcomes have been used in

Table 3. Dimensions Used to Evaluate Different Potential Target Audiences

Dimension	Description
Key	
Size[a]	The size of the segment and the percentage of individuals in the segment who engage in the undesirable behavior
Readiness	The extent to which the individuals in this segment are able, willing, and ready to change their behavior
Reachability	The extent to which members of this segment are easy to identify and there are known distribution channels for persuasive messages
Secondary	
Problem severity	The consequences of the undesirable behavior present in this segment
Defenselessness	The extent to which this segment is self-sufficient and has high agency over their behavior versus needing assistance from others
Normative impact	The extent to which changes in this segment will shape social norms related to the target behavior
Incremental cost	How costly it is to reach and influence this segment
Responsiveness	How responsive this segment is to the planned intervention strategies
Organizational capabilities	The degree of knowledge and expertise the social-marketing team has working with this segment

Note: Based on Lee and Kotler (2015) and McKenzie-Mohr (2011).
[a]Also referred to as *need*.

the prejudice literature, they are seen primarily as a behavioral indicator of bias. In contrast, social marketers would identify a specific intergroup behavior on the basis of the dimensions listed in Table 1 and then design an intervention that specifically targets this behavior. They would set an objective criterion representing the expected size of the effect that provides a more powerful and compelling test than nondirectional hypothesis testing (Meehl, 1978). As Nancy Lee and Philip Kotler, two well-known social marketers, put it, "The key to success is to select single doable behaviors" (Lee & Kotler, 2015, p. 157).

Identify a Specific, Relevant Target Audience

The social-marketing approach

Social-marketing interventions are designed to change the behavior of a specific subset of the population, the "target audience" (Lee & Kotler, 2015). Social marketers first segment the population in terms of relevant criteria (Kotler & Armstrong, 2001). Depending on the social problem under consideration, these criteria may be based on demographic (e.g., age, race), geographic (e.g., neighborhood, urban vs. rural), and/or psychological characteristics (e.g., personality, current attitudes). Social marketers then evaluate each segment on a number of predetermined dimensions (discussed below; see also Table 3). Finally, they choose one segment (or several segments with similar characteristics) to target in their intervention. This approach is based on the observation that "one-size-fits-all" approaches (referred to in the social-marketing literature as "undifferentiated marketing") tend to be rather ineffective (Apfelbaum, Stephens, & Reagans, 2016). The explanation for this ineffectiveness is that different segments of the population are receptive to different messages, possess different motivations, and have different reasons for not engaging in the desirable behavior. Although now associated with social marketing, this approach is consistent with many classic social-psychological experiments that considered explicitly how individuals with different characteristics and roles responded differently to the same stimulus (e.g., Hovland, Janis, & Kelley, 1953).

The methods used to segment the market depend in part on the purpose of the intervention. The goal is to end up with a target audience comprising individuals who have common characteristics (e.g., needs, values, motivations, barriers) that will cause them to react similarly to the messages used in the behavior-change campaign. As already mentioned, classic segmentation methods involve classifications by demographic or geographic variables, whereas other methods rely on psychological dimensions. Consider, for example, the stages-of-change model, which differentiates individuals according to how far along they are in the behavior-change process (Prochaska, Norcross, & DiClemente, 1992). According to this model, the messaging that will be effective for someone who has decided to lose weight (i.e., preparation stage) will differ from what will be effective for someone who has lost weight and is trying to maintain their weight (i.e., maintenance

Table 4. Potential Target Audiences

Segmentation method	Potential target audience features
Demographic	• Race: White individuals, underrepresented minorities • Age: college students, children, senior citizens, middle-aged adults • Other demographics: LGBTQ individuals, immigrants, Christians, atheists, able-bodied individuals, men, women, middle-class individuals
Geographic	• Residents of rural, suburban, or urban areas • Those living in the U.S. Northeast, Southeast, Midwest, Southwest, or Northwest • Highly diverse communities, homogeneous communities
Psychometric	• Individuals who are highly concerned about discrimination or do not consider discrimination to be a problem • Individuals with different personality profiles (e.g., high openness, low agreeableness) • Different levels of stereotype endorsement or explicit or implicit prejudicial attitudes • Different levels of tolerance for ambiguity • Different political values and beliefs • Varying degrees of interest in the target behavior or diversity generally
Stages of change	• Precontemplation: do not intend to act in foreseeable future • Contemplation: intend to act in foreseeable future but no plan • Determination: ready to take action and begin taking small steps • Action: have changed behavior and intend to expand and continue this behavior change • Maintenance: have engaged in the new behavior for some time and simply must prevent relapsing to earlier stages
Other	• Behavior: what kinds of intergroup behavior individuals currently engage in • Experience: how much practice individuals have had with the target behavior and other intergroup behaviors • Affiliations: other social groups individuals are members of (e.g., community organizations, clubs) • Role: status of individuals within an organization (e.g., students, low-level employees, managers, operational staff, board)

stage). Climate-communication researchers distinguish between "Six Americas"—six different groups of individuals who differ in their views about the climate crisis. These views, in turn, affect how they perceive and react to messages and behavior appeals concerning the climate crisis (Maibach, Roser-Renouf, & Leiserowitz, 2009; Roser-Renouf, Stenhouse, Rolfe-Redding, Maibach, & Leiserowitz, 2015).

Once the population in a given setting is divided into segments and a list of potential target audiences is established, social marketers conduct research to determine how each of these target audiences scores on relevant dimensions, not unlike the process used to select a target behavior. These dimensions are described in Table 3.

Once each of the potential audiences is rated on each of the relevant dimensions using the same numeric scale, social marketers identify the segment with the highest average score and designate it as the target audience. The target audience is defined concretely and precisely. Note that this audience can be quite small if it scores well on other dimensions. For example, a social-marketing intervention that aimed to reduce HIV rates targeted men who had sex with men in rural areas (Bowen, Horvath, & Williams, 2007). Note that many individuals will be exposed to the intervention, not only the members of the target audience, a point we discuss in more detail below.

If a team of social marketers were hired to improve intergroup relations in a specific setting, they would begin by making a list of the population segments to potentially be targeted by such an intervention. Potential target audiences are listed in Table 4. To determine the ideal target audience, the social marketers would conduct background research to determine how each of these potential target audiences ranks in terms of its size, readiness, and reachability (and possibly the other dimensions included in Table 3). These rankings would be used to select the target audience. The intervention would then be designed to appeal to this target audience.

Comparing the social-marketing approach to current prejudice research

Social marketers have a narrow focus: They seek to alter the behaviors of a homogeneous (sometimes small) subset of the population. Psychologists have a much broader focus: They seek to establish general principles of human cognition and behavior (Oyserman, 2016; Rad, Martingano, & Ginges, 2018). This difference is driven by the distinct fundamental goals of each group: Social marketers seek to solve social problems, whereas psychologists seek to advance scientific knowledge. The latter is generally assumed to be possible only by identifying general principles that apply to a large number of people. Creating and testing a prejudice-reduction method that appeals to only a small segment of the population appears, by this standard, unlikely to advance psychological theory.

Despite these differences, there are some social-psychological publications that discuss the choice of the target audience. For example, Walton and Cohen (2011) argued that African American students are particularly receptive to their social-belongingness intervention because they experience greater belonging uncertainty in school. They further argued that the effects would be greatest in transition periods (e.g., entry to middle school, entry to high school, and entry to college). Paluck, Shepherd, and Aronow (2016) argued that "social referents"—individuals central to a school's social network—were a particularly influential target audience and specifically examined how targeting these individuals changed the effects of an antibullying intervention versus targeting individuals who were not social referents.

In the intergroup domain, one of the dimensions used to evaluate potential target audiences has received some attention: readiness. This dimension refers to the extent to which a population segment is ready, willing, and able to adopt more positive intergroup behaviors. There are several studies that have examined whether social groups differ in variables related to readiness, such as internal motivation to respond without prejudice (Plant & Devine, 1998) and general enthusiasm for diversity (i.e., allophilia; Pittinsky, Rosenthal, & Montoya, 2011).

Yet other researchers have designed interventions for specific target audiences. For example, Walton and Cohen (2007) created self-affirmation exercises designed specifically for academically underachieving students from historically underrepresented groups. Okonofua, Paunesku, and Walton (2016) cut suspension rates by half by administering an intervention to middle school teachers that encouraged having an empathetic mind-set about discipline. Blatt, LeLacheur, Galinsky, Simmens, and Greenberg (2010) created a perspective-taking intervention for medical-school students. In most of these research projects, however, the chosen target audience was simply the group of individuals whose behaviors needed to change in order to solve the problem. Unlike social marketers, the researchers who conducted the abovementioned studies did not segment the population into groups of individuals who have something in common, evaluate these groups along the dimensions mentioned above, and make a conscious decision to choose one of these groups to be the target audience of the intervention. We are not aware of any studies in which prejudice researchers compared different population segments in terms of their size, readiness, and reachability; decided on one target audience; and finally created a prejudice-reduction intervention specifically designed for this target audience.

The research discussed above is reflective of a growing recognition in the greater field of psychology that findings previously thought to be universal are actually specific to individuals with certain characteristics as a result of sample biases and constraints (Henrich, Heine, & Norenzayan, 2010). Some have called for more explicit reporting of sample characteristics to improve and advance psychological science, noting the "constraints on generality" that exist in nearly all research programs but are rarely explicitly laid out (Goroff, Lewis, Scheel, Scherer, & Tucker, 2018; Simons, Shoda, & Lindsay, 2017). These reflections reinforce the importance of researching and selecting a target audience with shared, clearly defined characteristics. Creating an intervention designed specifically for such an audience requires knowing what kinds of factors contribute to or undermine the adoption of the target behavior, which we turn to next.

Considering the Barriers and Benefits That Affect the Behavior of the Target Audience

The social-marketing approach

Social marketers sort the many factors that influence human behavior into two broad categories: barriers and benefits. Barriers make it less likely that an individual will engage in the target behavior (psychologists might refer to them as "costs"; Eccles & Wigfield, 2002), and benefits make it more likely (the same term is used in the psychological literature; e.g., Berman, Jonides, & Kaplan, 2008; Kotler & Lee, 2006). Barriers and benefits are considered central to describing why individuals choose the current, undesirable behavior (i.e., the competition) over the future, desirable behavior (i.e., the "product to be sold"; Peattie & Peattie, 2003; B. Smith, 2003). Leveraging these factors can, in turn, change behavior. Both barriers and benefits can be concrete (e.g., not knowing how to perform a certain behavior, receiving an incentive for engaging in the desirable behavior) or abstract (e.g., fearing social isolation, feeling as though one is contributing to the public good). They can be internal (e.g., intergroup anxiety) or external (e.g., lack of organized opportunities to meet people from other social groups). They can be real (e.g., individuals from different cultures have a different way of talking) or perceived (e.g., the belief that one's peers rarely engage in inclusive behaviors).

The goal of social marketers is to learn from members of the target audience what prevents them from engaging in the desirable target behavior and what would make them more likely to do so. Members of the target audience for an intervention to increase physical activity could lack information about what kind of exercises they should engage in and what activities are offered in their neighborhood (barriers) but may say they would exercise more often if it improved how they felt and provided them an opportunity to make new friends (benefits). Social marketers use this information to craft persuasive messages that directly address the barriers and benefits that affect the target audience's behavioral choices: The intervention to increase physical activity may involve organizing group-fitness classes led by an instructor, creating a website that allows individuals to find out which classes are offered near their work or home, and emphasizing the social nature of these classes.

If a team of social marketers were tasked with improving intergroup relations in a specific setting, they would try to get to know the members of the target audience by conducting structured interviews, focus groups, and surveys. Their objective would be to find out the major barriers and benefits of the desirable behavior (e.g., being welcoming to students from marginalized groups) and of the competing behavior (e.g., being socially distant). Possible tactics include asking individuals who currently engage in the desirable behavior what benefits they derive from doing so (or what caused them to change their behavior) and asking those who currently engage in the competing behavior what their reasons are for not engaging in the desirable behavior.

Finally, social marketers would try to identify the target audience's "influential others": whom they listen to, watch, or look up to. These others could be social groups that many members of the target audience belong to (e.g., religious groups, university peers) or individuals that the target audience finds trustworthy, credible, and likeable (e.g., star players on the university's football team).

The ultimate goal is to design an intervention that makes salient the benefits of the desirable behavior and the barriers/costs of the undesirable behavior. In addition, social marketers sometimes try to eliminate or invalidate barriers of the desirable behavior and benefits of the undesirable behavior. For example, if the fear of saying the wrong thing to a member of another social group was a commonly reported barrier, the social marketers might provide people with tools to avoid offensive language and encourage them to reframe situations of being confronted for saying something offensive as positive learning experiences. In addition to making benefits of the target behavior salient, social marketers address any doubts that the members of the target audience may have about whether they will, in fact, experience these benefits. The intervention materials, such as posters, videos, or workshop exercises, are usually pilot-tested extensively to make sure they have the desired effect. Members of the target audience and individuals from other segments who will be exposed to the materials are asked to share their opinions. This process helps to identify potential unintended consequences of using specific messaging and obtaining some initial sense of whether the campaign is likely to be received well by the target audience. At this step, social marketers also explore whether the target audience's "influential others" can be enrolled to promote the messages that are part of the intervention.

Comparing the social-marketing approach to current prejudice research

In pursuit of the goal of establishing general psychological principles, relatively little prejudice research closely examines the barriers and benefits that affect the likelihood of a given target audience engaging in a given behavior. However, some barriers and benefits have been identified as a by-product of research on the causes of prejudicial attitudes and discriminatory behaviors, at least for the segment of the population that prejudice researchers have studied most extensively: college students.

Some research has identified potential barriers to inclusive behavior. For example, college students who fear negative consequences of intergroup contact are less likely to engage in such contact and are less successful when they do so (Stephan & Stephan, 1985). High school students may fear that they will be rejected by students belonging to different ethnic groups if they try to sit with them in the cafeteria (Shapiro, Baldwin, Williams, & Trawalter, 2011). Sighted individuals may abstain from helping or welcoming blind individuals for fear of coming across as patronizing or infantilizing (Wang, Silverman, Gwinn, & Dovidio, 2015). If individuals see a given outgroup as threatening, similar negative intergroup outcomes result, regardless of the type of threat posed (e.g., realistic, symbolic; Riek, Mania, & Gaertner, 2006). To address these barriers, one might work to dispel anxieties about interactions with members of different social groups and encourage individuals to see other social groups as cooperative rather than threatening.

Relatively less work in the prejudice domain has identified potential benefits to behaving inclusively, although some examples of identifying and targeting benefits exist in other domains of psychology (e.g., utility-value interventions; Harackiewicz, Canning, Tibbetts, Priniski, & Hyde, 2016). Some general principles regarding the factors that can motivate individuals to engage in a given behavior have been established, and there is reason to believe that these principles can also be applied to intergroup behavior. For example, in their review of field interventions, Walton and Wilson (2018) discuss at length the importance of changing the framing of a given problem. They identify a number of fundamental human drives to consider when crafting persuasive messages, including belonging, self-integrity, and understanding. In a way, reframing the problem in terms of satisfying these goals is akin to making salient the benefits of the target behavior.

An inspection of the scientific literature reveals that prejudice researchers tend to focus more on barriers than on benefits. Many methods to improve intergroup relations make salient the negative consequences of undesirable behaviors by highlighting the detrimental consequences of discrimination. Few diversity initiatives include messages about the benefits of the desired behavior: It is seldom communicated to people what positive outcomes they may experience if they behave in an inclusive, nondiscriminatory manner. In terms of the regulatory-focus theory proposed by Higgins (1998), the methods proposed by prejudice researchers induce people to adopt a prevention focus rather than a promotion focus. And yet there are numerous benefits for behaving inclusively that could be made salient (e.g., learning and discovering new things, meeting different kinds of people, helping to contribute to a more positive institutional climate). Focusing on the benefits of inclusive behaviors rather than on the negative consequences of discrimination not only may be a more effective way to change intergroup behaviors but also may remove some of the blame and negative affect that currently characterizes many initiatives aimed at reducing prejudice (Legault, Gutsell, & Inclicht, 2011; Stone, Whitehead, Schmader, & Focella, 2011).

Although prior research has identified factors that causally influence prejudice and discrimination, there are virtually no studies in which researchers systematically assess the barriers and benefits associated with specific intergroup behaviors, either desirable or undesirable. This lack of focus on behaviors in social psychology has been deplored by several eminent scholars who have questioned the utility of theories that cannot predict real-life behavior (Baumeister, Vohs, & Funder, 2007; Cialdini, 2009; Maner, 2016).

Putting Social Marketing Into Practice

When designing an intervention, social marketers must determine the target behavior, the target audience, and the barriers and benefits that should be made salient. Although presented sequentially in the section above, these determinations are in fact made in parallel through an iterative process (see Fig. 1). Sometimes a target behavior is chosen, but in the process of evaluating different potential target audiences, it becomes apparent that it makes more sense to focus on a different target behavior. Sometimes a target behavior and a target audience appear to be ideal, but then the qualitative and quantitative research conducted with members of the target audience reveals that certain barriers are insurmountable and that it makes sense to focus on a different target behavior, a different target audience, or both. To illustrate these points, we briefly present two successful and scalable social-marketing campaigns in the intergroup domain in the next paragraphs.

Hull et al. (2017) sought to combat the persistent high rate of HIV infections among young Black men in Milwaukee, Wisconsin. Their assessment of the problem made it clear that knowledge about safe-sex practices and condom use was not the core issue to address. Instead, on the basis of their insight that homophobia (stigma) was a fundamental distal cause of increased HIV risk, they reasoned that targeting attitudes toward gay men in the community overall would lead to reductions in rates of HIV infection. Thus, they decided on a target audience (adult, a priori heterosexual individuals in the Black community) and a target behavior (abstain from rejecting family members if they come out as gay). The belief and attitude objectives were to reduce homophobia and get people to be accepting of gay individuals (Hull, Gasiorowicz, Hollander, & Short, 2013).

To explore the barriers and benefits of the new target audience, Hull et al. (2017) ran focus groups and conducted a community-readiness assessment survey. They found that members of the Black community in Milwaukee reported low levels of readiness for action and thus were not receptive to a direct antihomophobia message. The researchers thus designed a campaign, “Acceptance Journeys,” that initially focused on the general acceptance of others. Over the course of 5 years, the campaign progressively introduced messages specifically about gay men and lesbians. Social-media posts, press releases, and mass media were among the methods used to distribute the targeted messaging,

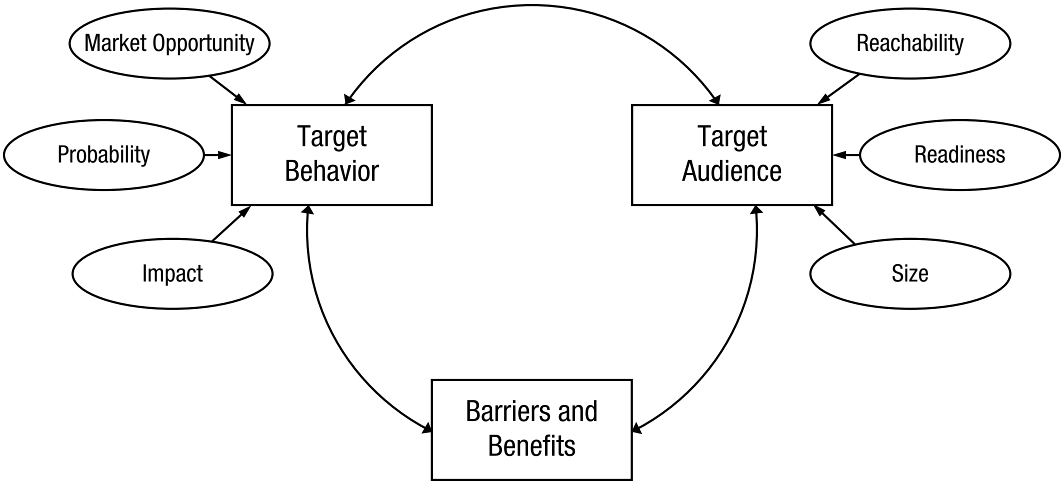

Fig. 1. Iterative determination process. Researchers select a target behavior and target audience, considering salient features affecting the weight of potential behaviors and audiences as well as barriers and benefits relevant to these behaviors and/or audiences.

which focused on the importance of loving and accepting others and included personal narratives featuring members of the community describing how they came to accept something difficult about someone close to them. To assess the campaign, the researchers recruited samples in Milwaukee and two control cities across time. Comparisons between the three cities showed that the campaign was highly effective (Hull et al., 2017).

As a second example, consider an intervention we designed in our own lab (Campbell, Dusmesnil, Miller, & Brauer, 2019). Our goal was to make the social climate in university classrooms at large public universities more inclusive so that students belonging to marginalized groups would have an enhanced well-being and thus be more successful in college (e.g., higher grade point average, better health, higher graduation rate). We conducted focus groups and surveys among students belonging to targeted minorities on campus. They reported that they were, relatively speaking, less concerned by blatant acts of discrimination (because these behaviors could be written off as exceptions) but strongly affected by the social-distancing behaviors of their nonmarginalized peers (e.g., these peers avoiding sitting next to them in the classroom or not engaging them in conversation). Accordingly, we decided we would target a small set of interrelated behaviors signaling social closeness. Our target audience was students who did not belong to marginalized groups and who were neither highly prejudiced nor highly inclusive.

Background research on members of our target audience revealed that they generally recognized being inclusive was the right thing to do, but they also experienced intergroup anxiety (they were afraid that they would inadvertently say something offensive) and perceived few personal benefits to behaving inclusively (they were not aware of the positive consequences for them; few of their peers seemed to care about being actively inclusive). They also did not know what behaviors would make their marginalized peers feel welcomed, respected, and included. Finally, they underestimated their peers' strong commitment to inclusion (as revealed by a climate survey). We created a one-page intervention that instructors could add at the end of their course syllabi. The page made personal benefits salient, made concrete behavioral suggestions on what to do and what not to do, and reported statistics highlighting pro-diversity attitudes among their peers. We pilot-tested the page with members of the target audience as well as students from marginalized groups and thus validated its relevance to the target audience and ensured it would not have an adverse effect on students from marginalized groups. A systematic evaluation in multiple randomized control trials revealed this intervention to be highly effective in promoting positive intergroup behavior in all students and improved the well-being of individuals from marginalized backgrounds (Campbell et al., 2019).

Although a particular intervention may be designed with a particular target audience in mind, it is not the case that only individuals belonging to the chosen population segment will be exposed to it. This point is particularly important in the intergroup domain, in which a message that is effective for a certain audience may have a different or opposite effect with other audiences. For example, whereas intergroup contact has been shown to be beneficial for members of advantaged groups (Paluck, Green, & Green, 2018; Pettigrew & Tropp, 2006), it has been suggested that for members of marginalized groups these effects may be much smaller (Schellhaas & Dovidio, 2016) or possibly even reversed, undermining impressions of discrimination and desire for collective action (Dixon, Tropp, Durrheim, & Tredoux, 2010). Some empirical research has identified methods that are effective with White individuals but has then failed to examine how the method may affect people of color.

Unanswered Questions: A Possible Agenda for Prejudice Research

One might think that the prejudice researchers and social marketers pursue two fundamentally different goals and have fundamentally different approaches. In a way, this impression is correct: The former try to advance knowledge about general psychological processes involved in human intergroup attitudes and behaviors, whereas the latter try to change people's behaviors in specific settings to solve social problems. The former conduct primarily theory-based research, whereas the latter adopt a problem-based approach. However, we suggest that prejudice researchers have much to gain by adopting, at least occasionally, elements of a problem-based approach. In the following sections we describe the important insights that prejudice researchers can obtain by systematically studying target behaviors, target audiences, and barriers and benefits. These insights would be very valuable to practitioners in the field but most importantly would contribute in significant ways to current social-psychological theorizing about intergroup phenomena.

We discuss below how research on target behaviors, target audiences, and barriers and benefits could address interesting theoretical and applied questions. First, however, we would like to address one overarching point: Prejudice researchers could make valuable scientific contributions by developing tools that allow practitioners and scientists to measure the constructs of interest. What is the best way to assess the impact, probability, and market opportunity of different behaviors? How can we reliably measure the size, readiness, and reachability of different population segments? And what is the best way to identify barriers and benefits that play a key role for various intergroup behaviors? Interview and focus-group questions could be used as tools to answer these questions, but most importantly there is a need for scales with good psychometric properties that can be used in larger samples (e.g., climate surveys in organizations, mass surveys in introductory psychology courses). A reliable assessment of the constructs of interest is a precondition for testing theory-based hypotheses about these constructs.

Research on target behaviors

Little information exists about how intergroup behaviors rank in terms of their relative impact, probability, and market opportunity. Which behaviors affect members of marginalized groups the most (impact), which behaviors are amendable to change (probability), and how widespread are these behaviors (market opportunity)?

Prejudice researchers could develop scales that identify the behaviors that have the greatest effect on members of marginalized groups. One could imagine studies with experience-sampling techniques in which members of marginalized groups report daily on the feelings they had during their last unpleasant intergroup encounter. Furthermore, prejudice researchers could conduct experimental intervention studies in which they verify whether a change in a given behavior has a larger impact than a change in some other behavior. This impact could be assessed by measuring the perceptions of the social climate and the sense of belonging among individuals from marginalized groups several weeks after the intervention.

Prejudice researchers have numerous theories about the factors that make different behaviors more or less amendable to change. Habits are harder to change than behaviors that people engage in only occasionally (Devine, Forscher, Austin, & Cox, 2012). Behaviors that can be viewed through a different perspective are easier to change (Walton & Wilson, 2018), as are behaviors that are not an expression of a person's identity (e.g., self-perception theory; Bem, 1972) or that can be framed as being inconsistent with a person's values (Monteith, 1993). What is missing, however, is a systematic classification of different kinds of intergroup behaviors, including information regarding how amenable they are to change.

We also know very little about how widespread different kinds of intergroup behaviors are. We know that individuals belonging to marginalized groups are treated more negatively on average but usually do not know what percentage of the population is actually responsible for negative intergroup behavior (Campbell & Brauer, 2019). For example, the average scientist evaluates female candidates for a lab-manager position more negatively than equally qualified male candidates (Moss-Racusin et al., 2012), but we do not know whether this bias is due to a numerical majority of scientists' slight preferences for men or to a numerical minority of scientists who systematically prefer the male candidate. Interest in microaggressions has recently increased (see Lilienfeld, 2017; Sue, 2010; Sue et al., 2007), but no existing empirical research examines how many people actually engage in these microaggressions. The fact that individuals belonging to marginalized groups are frequently exposed to microaggressions does not necessarily imply that microaggressions are "widespread"—that is, committed by a large number of people. The same reasoning applies to other forms of discrimination. One could imagine a number of methodologies, including straightforward behavioral observations or collection of data on incidents of bias and discrimination that could shed light on the frequency and perpetrators of these behaviors.

Prejudice researchers tend to view intergroup behavior as a kind of monolith: A variety of different kinds of behaviors, including overt discrimination, microaggressions, and intergroup contact, are all referred to under this overarching label. Referring to these distinct behaviors using a single term could be considered a "jingle fallacy," in which a single term is used to refer to different concepts, leading them to be inaccurately conflated (Marsh, 1994). Future research should help us to understand how various kinds of intergroup behavior differ, how they are differentially affected by different kinds of manipulations, and what other constructs they are related to, in turn advancing prejudice theory. For example, recognizing that implicit measures outperform explicit measures in the prediction of spontaneous behavior whereas explicit measures outperform implicit measures in the prediction of deliberate behavior (e.g., Asendorpf, Banse, & Mücke, 2002; Dovidio et al., 2002) refined our theoretical understanding of both concepts. A more refined knowledge of intergroup behaviors would also help us avoid Type II errors. There is currently no study showing that implicit bias influences intergroup behavior, but according to Gawronski (2019) the expectation that it should is unrealistic because changes in implicit bias can at best lead to changes of certain types of intergroup behavior. Research on target behaviors could help to identify what types of behavior we may reasonably expect implicit bias, or any other psychological construct, to predict.

Another interesting question concerns how these dimensions should be weighted and how they influence each other. For example, is it easier or more advantageous to change rare behaviors (i.e., "well-tilled soil," permitting social-norms interventions) or common behaviors (i.e., "parched earth," giving more opportunity for growth; Walton & Yeager, 2020; Yeager et al., 2019)? Is it more effective to increase the occurrence of inclusive behaviors or to decrease the occurrence of discriminatory behaviors? Although the precise answers to these questions about intergroup behaviors probably depend on the target audience under consideration, prejudice researchers can provide some general insights that would not only inform their theories on intergroup behavior but also could be used as starting points for practitioners in the field.

Research on target audiences

We have limited information about how different segments of the population compare in terms of the social-marketing concepts of size, readiness, and reachability. How big are the different segments and, most importantly, what percentage of individuals in the segment engage in the undesirable behavior (size)? Do groups differ in the extent to which they are able, willing, and ready to change their behavior (readiness)? And to what extent do each of these groups contain members that are easy to identify and there are known distribution channels for persuasive messages (reachability)?

Most prodiversity initiatives seem to target White individuals in general, although this focus is rarely stated explicitly (Henrich et al., 2010; Simons et al., 2017). Amassing information about potential target audiences, defined by demographic, geographic, and/or psychological characteristics, can meaningfully advance theory by leading to testable hypotheses about the antecedents and consequences of target audience size, readiness, and reachability. If two population segments are comparable in terms of attitudes and beliefs but differ in the percentage of members who engage in various discriminatory behaviors (or vice versa), then prejudice researchers can develop and test hypotheses about the factors that determine intergroup behaviors. The psychological characteristics identified through background research could serve as interesting moderators of the effect of a given manipulation on the target behavior.

A similar reasoning can be applied to research examining how different groups differ in readiness to change their intergroup behaviors. Groups of individuals with high scores on motivational measures (e.g., internal motivation to respond without prejudice; Plant & Devine, 1998) or who are strongly committed to diversity (Campbell & Brauer, 2019) are likely to be willing to change their behavior. It is unclear, however, how different segments compare in terms of ability to change their behavior. Do they know how to behave inclusively or mitigate their biases? Do they possess the self-efficacy and ability to alter their behaviors?

Research on group differences in ability, willingness, and readiness to change intergroup behaviors can provide important theoretical insights. If a given group scores higher on one of these constructs than another, researchers can identify other variables that differ between these groups, in turn deriving hypotheses about the factors that causally affect the construct under consideration. Is willingness primarily influenced by beliefs and attitudes, or do salient injunctive norms play a key role? Does the perception that most peers engage in discriminatory behaviors increase or decrease one's readiness to change one's own intergroup behavior? What variables contribute to higher intergroup self-efficacy? The ability of research that concretely defines its target population to advance theory was discussed at length by Simons and colleagues (2017), who noted that even null findings provide opportunities to advance theory if features of the sample are known, as researchers can compare features of the samples in these studies to others where the focal effect was observed.

As with target behaviors, it could be interesting to examine how the different dimensions used to evaluate target audiences should be weighted and how they relate to each other. Can high willingness and readiness to adopt more positive intergroup behaviors compensate for low ability? Or is high ability a precondition for behavior change, such that willingness and readiness only play a role when individuals feel that they can create a welcoming and inclusive environment for others? Researchers could examine the conditions under which these dimensions motivate action. Such research could also provide an answer to a pragmatic question prejudice researchers and practitioners alike have asked themselves: Should prodiversity initiatives target highly egalitarian individuals, highly racist individuals, or people in the middle?

Research on barriers and benefits

One of the key ideas of social marketing is to focus on *nondivisible* (or *nonreducible*) behaviors. The reason is that the barriers and benefits are likely to differ substantially between behaviors. Likewise, the barriers and benefits for the same behavior are likely to differ between target audiences. For example, what prevents high school students in Minneapolis from including their gay peers in social events may be different from what prevents factory workers in a small town in Arkansas from doing the same. Still, prejudice researchers could identify and study general principles related to barriers and benefits of common intergroup behaviors and thus address interesting theoretical questions.

One line of research could aim to identify barriers and benefits that apply to numerous target audiences. What concerns or fears do people have regarding particular intergroup behaviors? How do they think others would react if they were to engage in one of these behaviors? Research could examine whether providing information, raising awareness, changing structural/environmental factors, or shifting social norms can address different barriers and benefits.

A number of possible barriers and benefits to inclusive behaviors easily come to mind. On the one hand, people may fear doing or saying the wrong thing when interacting with out-group members, students may be concerned about being ostracized by their peers, employees at a company could lack the time to sit on a diversity task force, or people living in rural, predominantly White areas may think diversity has little relevance to them. On the other hand, adopting the target behavior could allow people to express their egalitarian values, students may enjoy meeting people from different social backgrounds, employees may aim to acquire skills interacting with diverse team members, and people in rural areas may be motivated to build a more positive environment in their community.

Future research could investigate group differences, thus developing our theories about intergroup attitudes and behaviors. How do the same barriers and benefits influence intergroup behaviors in different groups of individuals? Are barriers and benefits compensatory, additive, or interactive? That is, after minimizing barriers, does making benefits salient have no effect, linearly increase rates of the target behavior, or have an even greater effect than it would for individuals who have not had their barriers minimized? Can barrier and benefit information successfully be communicated directly or, as another area of social psychology suggests, is it more effective when it is self-generated (Canning & Harackiewicz, 2015)?

Yeager and colleagues (2019) tested many different possible phrasings of a mind-set manipulation to identify the most effective message. Likewise, prejudice researchers could test slightly different versions of an intervention, selectively omitting particular parts of the persuasive message and manipulating how these parts are presented to determine what specific barriers and benefits most affect a given target behavior and how to present them to the target audience. This research could build on existing studies on the effects of minor alterations in messaging, such as the research conducted by Bryan and colleagues, who showed that using noun phrasing (e.g., "voter") as opposed to verb phrasing (e.g., "vote") increases voter turnout (Bryan, Walton, Rogers, & Dweck, 2011), decreases cheating (Bryan, Adams, & Monin, 2013), and increases helping among children (Bryan, Master, & Walton, 2014).

Feasibility, Partnerships, and Incentives

In this section, we address some of the barriers and benefits psychologists may have toward the target behavior that we have introduced in this article: conducting research that takes into account social-marketing principles. The prospect of designing and testing a full-fledged prodiversity intervention based on social-marketing principles may seem a daunting proposition, especially considering the challenges that come with conducting research in natural settings. However, there is no need to start out with a large-scale cluster-randomized controlled trial in the field. The numerous research questions proposed in the previous section illustrate how the background research required to design an intervention is publishable in its own right because it addresses interesting theoretical questions. By the time an intervention is ready to be implemented in the field, a researcher could have already published multiple articles describing the findings of relevant background research, mostly in the form of randomized experiments. Note that this background research can consist of studies related to the target behavior, target audience, or the relevant barriers and benefits; tests of the components of the intervention; or comparisons of different manipulations of psychological constructs. It is entirely possible many of these studies could be conducted in the lab or online. Such research would advance relevant theory and provide practical information to other researchers that may have more experience and resources to conduct large-scale field experiments.

Researchers interested in testing interventions in field experiments may be concerned about the resources required, including the monetary costs, expertise (e.g., communication experts to design media campaigns), and the actual opportunities and limitations present in field settings (e.g., lack of access to participants). We would like to offer four responses to these concerns.

First, because intergroup research (like numerous other areas of social psychology) addresses social problems, many organizations have a vested interest in supporting such research. Given that it costs approximately 1 year of salary to replace an employee (Altman, 2017), many for-profit companies and public entities are very interested in ways to improve their organizational climate and thus reduce employee turnover, particularly among employees from marginalized groups. Researchers and organizations can thus work out mutually beneficial agreements whereby the researcher can implement a rigorous evaluation study in the field and organizations benefit from the researcher's expertise in intergroup relations, behavior change, experimental design, and data collection and analysis (Dinneen, 2019; for an example of a fruitful collaboration, see Chang et al., 2019). Organizations that are hesitant to allow the researcher to implement a randomized experiment are sometimes more open to a randomized rollout design, in which a randomly chosen subset of the "units" (e.g., individuals, classrooms, teams, departments, facilities) are exposed to the intervention, outcomes are measured in all units several months later, and the remaining units are exposed to the intervention thereafter. Some researchers may be concerned about how partnering with a private company could compromise the integrity of the research, but it is worth noting that many problems can be avoided by specifying an agreement at the outset of such a partnership. For example, the researcher and the company can sign a memorandum of understanding that gives the researcher the right to publish the results regardless of the outcomes and gives the company the right to request that its name not be mentioned in the publication if the results risk tarnishing its public image.

Second, costs can be reduced through scientific collaborations. Research incorporating social-marketing principles provides great opportunities for collaboration, both across disciplines and across institutions. Researchers and academics from other fields can be invited to be part of projects for which their expertise would add value and be credited with an authorship on any resulting publication (e.g., a medical professor for an intervention targeting medical students, a communications researcher for an intervention using social media). Although it presents new challenges, cross-discipline collaborations represent a significant opportunity to advance our science, as has been discussed by leaders in the field (Breckler, 2005; Watson, 2003). On a broader level, researchers interested in the kind of research described in this article in different institutions could collaborate, testing interventions across these institutions (e.g., the "Many Labs" project; Klein et al., 2014, 2018). This collaboration would vastly increase sample sizes available as well as achieve one of the research aims introduced above: contributing to an understanding of how features of the target audience affect results of interventions.

Third, costs can be reduced by taking advantage of existing practices. Many private companies and public institutions (including schools and colleges) have their members fill out a climate survey on a regular basis (commonly every 1 or 2 years). Such a survey can be used to assess relevant outcomes: Many include items about sense of belonging, feeling welcomed and respected, and frequency of being subject to disrespectful or discriminatory treatment. All of these measures can be used to examine whether a given initiative improves the experiences of members of marginalized groups, a set of outcomes we referred to as "consequential" earlier in this article. If an existing climate survey lacks relevant measures or there are simply other outcomes the researcher is interested in collecting, it is often possible to request that these additional measures be added.

Fourth, researchers who conduct research consistent with social-marketing principles may worry that they will not be rewarded for such work by journal editors and grant-review panels. We would argue that incentive structures have changed in recent years. Simons and colleagues (2017) proposed that article authors specify "constraints on generality" that identify and justify target populations for the reported findings. According to these authors, doing so increases the likelihood a finding will be replicated and prevents embarrassment in the event of nonreplications because nonreplications can often still be used to advance science as discussed above. Many of the top scientific journals (e.g., *Science, Nature, Proceedings of the National Academy of Sciences*) will apply the same criteria in reviewing research that we outlined earlier in this article: They prefer randomized experiments with delayed, consequential outcome measures. This preference is evident in some of the most influential and highly cited articles in recent social psychology that have both satisfied these criteria and been published in these highly influential journals (e.g., Cohen, Garcia, Apfel, & Master, 2006; Paluck, 2009; Paluck et al., 2016; Walton & Cohen, 2011; Yeager et al., 2014).

Conclusion

Prejudice researchers have identified a number of prejudice-reduction strategies, both drawing on and contributing to our theoretical understanding of prejudice and discrimination. However, relatively few of these methods have been shown to effectively improve intergroup relations in real-world settings. This theory-based approach has resulted in a gap between our understanding of prejudice and the real-world applicability of our science. The existence of this gap in social psychology generally has been identified by scholars, who have proposed a series of principles that one should bear in mind when using psychological methods to address real-world problems (e.g., Cohen, Garcia, & Goyer, 2017; Walton, 2014; Walton & Wilson, 2018). These principles, some of which have already been discussed in this article, include considering basic psychological motivations such as belonging and self-efficacy, taking into account cultural and historical contexts, and identifying and measuring possible moderators of interventions' effects. These suggestions provide general ideas for bridging the gap, but they do not provide a systematic approach and specific tools for doing so.

Social marketing provides such a systematic approach, and in this article we sought to show how incorporating specific principles from this academic field—identifying target behaviors, selecting a target audience, and addressing barriers and benefits—can provide tools to practitioners aiming to improve intergroup relations in real-world settings and, at the same time, advance our theoretical understanding of prejudice and discrimination. Once we know more about the impact, probability, and market opportunity of various desirable intergroup behaviors; once we know more about the size, readiness, and reachability of different groups of individuals; and once we have identified the barriers and benefits of common behaviors toward out-groups, we can refine our existing theories about intergroup phenomena and test new hypotheses derived from these theories. These theories should then reliably predict real-life attitudes and behaviors and thus lay the groundwork for effective, long-lasting, and scalable prodiversity interventions.

Transparency

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Notes

1. Note that we are referring to studies on prejudice reduction specifically (i.e., studies in which the goal was to foster more positive attitudes toward out-groups, reduce discrimination, promote inclusive behaviors, and improve intergroup relations). Work on helping students from underrepresented groups succeed in college (e.g., Harackiewicz et al., 2016; Walton & Cohen, 2011) is not considered here.
2. Note that several other articles (e.g., Carnes et al., 2015; Forscher, Mitamura, Dix, Cox, & Devine, 2017; Smith et al., 2015) came close to meeting these criteria.
3. One of the reviewers of this article made a similar point: "What good are psychological theories if they cannot explain, predict, or provide guidance for changing behaviors under the very conditions that they were developed to shed light on (in this case, prejudice reduction)?"

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