

## CHAPTER 15

### The Many Questions of Belonging

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One of the most important questions people ask themselves when they enter a new setting is “Do I belong here?” This is not a simple question. It involves two parties, “I” and “here,” and, at least implicitly, an evaluation of who I am (or can become) and what the setting allows (or can allow). Belonging is therefore not a simple summation of the number of friends one has in a space. It is a more general inference, drawn from cues, events, experiences, and relationships, about the quality of fit or potential fit between oneself and a setting. It is experienced as a feeling of being accepted, included, respected in, and contributing to a setting, or anticipating the likelihood of developing this feeling.

How do people make this inference? People assess their fit with the social world with an array of implicit worries and questions in mind, such as “Do I have anything in common with people here?”; “Are people like me valued here, or devalued?”; and “Can I be me here?” These questions tune people to specific kinds of cues that seem to address the questions they are asking. An important consequence is that a person may be highly responsive to cues that seem minor, even invisible, to a third party who does not have the same implicit question in mind.

From this theoretical perspective, fostering a sense of belonging is not about

promoting positive relationship in a setting per se. Certainly, positive relationships in and of themselves are valuable and may be a source of belonging (e.g., Shook & Clay, 2012); however, people may experience a sense of belonging even in settings in which they do not yet have strong relationships. They can also experience a lack of belonging even when they do have friends in a setting, for instance, if they feel that an important social identity of theirs is marginalized there. It is essential to go beyond personal relationships to understand the implicit worries and questions people have, and how these inform the inferences they draw from cues in an environment. Thus, interventions to bolster a feeling of belonging contend primarily with the symbolic meanings people draw from experiences.

#### ORGANIZATION OF THE CHAPTER

In making sense of their belonging, people seek to make sense of both the social context—including how others regard and treat oneself—and of themselves—including who they can be in that context. We organize this chapter by discussing each kind of question in turn. Importantly, the distinction between these types of questions is one of emphasis,

not kind. In both cases, at stake is people's perception of fit between themselves and a setting. This "setting" we define broadly, as either a specific school or work context or a broader civic or social community.

Throughout, we emphasize distinct implicit questions people ask about their belonging, how a particular question attunes people to specific cues and gives those cues meaning, and how an understanding of this process can give rise to novel strategies that help people feel included in important settings and ultimately flourish. We discuss both laboratory and field experiments, and emphasize how interventions to address belonging can alter people's outcomes along diverse dimensions over time. Because research on belonging, especially field-experimental research, is rapidly accelerating, we include both published research and relevant unpublished work.

### **THEORETICAL BACKGROUND**

Two properties of the social world make the processes by which people draw inferences about their social standing critical: ambiguity and recursion.

First, the world is often severely ambiguous. To make sense of even nonsocial events, people must extract meaning from partial and incomplete stimuli, a process described by Gestalt psychologists and illustrated in visual illusions (Koffka, 1935). In social contexts, this tendency to draw inferences is evident in how people transform simple movies of "interacting" shapes into complex dramas (Heider, 1958). In some cases, when making sense of their relations with others and fit in a social world, people experience relatively unambiguous cues, such as explicit prejudice. Ironically, these can be less cognitively disruptive than subtle ones that might or might not reflect bias (Salvatore & Shelton, 2007). As this example illustrates, an especially important ambiguity concerns the causes of events, termed *attributional ambiguity* (e.g., Crocker, Voelkl, Testa, & Major, 1991; Weiner, 1985), and thus what they mean for one's prospects of inclusion and success. A student may wonder why she was not invited to participate in a study group. A tech worker may wonder why a supervisor

criticized her work. A Latino student may notice that the hallways in the math department are covered with pictures of mathematicians, all of whom are white or Asian, and wonder whether this means his aspirations of becoming a math professor are unrealistic. In each case, a person may wonder if the event means that he or she does not or cannot belong in the setting, rather than attribute it to a more banal cause.

The ambiguity of everyday social life means that different people can make sense of and experience the very same event differently (Ross & Nisbett, 1991). What determines this? As people make sense of a social scene, they do so from a perspective informed by personal factors and group identities. This perspective shapes the contingencies (e.g., risks, opportunities) the person faces in daily life. One kind of contingency, for instance, is whether the person is at risk of experiencing bias or being seen through the lens of a negative stereotype in a setting (Steele, 1997; Steele, Spencer, & Aronson, 2002). An important implication of this risk is that, in addition to structural barriers faced by members of marginalized groups, such as access to fewer resources and discriminatory treatment, the awareness that one could be excluded or disrespected on the basis of group identity leaves an important mark in psychology. It sensitizes people to cues that could signal the status and treatment of their group, an experience called *social-identity threat* (Garcia & Cohen, 2013; Murphy & Taylor, 2012; Steele et al., 2002). For instance, all students may find a difficult, evaluative test aversive. But black students can experience an additional form of threat in taking an evaluative test because they—and not white students—face the prospect that a poor performance could be seen as evidence confirming the stereotype that their group is less intelligent than others (Steele & Aronson, 1995). Women (but not men) may become less interested in working for a tech company whose offices include *Star Trek* posters and empty coke cans because these objects evoke a masculine representation of the social climate that excludes them (Cheryan, Plaut, Davies, & Steele, 2009). One of the hidden advantages of being a member of a privileged group—of being white or male in these examples—is

that questions about the standing of one's group, or oneself as a member of a marginalized group, rarely come to mind.

As these examples illustrate, social-identity threat can create a persistent worry about whether "people like me" belong in a valued setting (Walton & Cohen, 2007; see also Walton & Carr, 2012). This worry, called *belonging uncertainty*, is distinguished from a more simple assessment of one's level of belonging (see Walton, Cohen, Cwir, & Spencer, 2012). People can feel they do not belong in a setting simply because they do not connect to it or value it. But they can also value a setting and generally feel that they belong in it but nonetheless feel uncertain about this belonging. When a person's belonging feels insecure, they can be attentive to even subtle cues that imply they (or their group) might not belong there (Walton & Cohen, 2007).

A second reason the inferences people draw about their belonging are critical involves the inherent recursion of the social world. People often behave in ways that make their expectations and beliefs come true; thus, inferences can have lasting consequences (Rosenthal & Jacobson, 1968). In close relationships, a person who doubts his or her partner's love can, as a consequence, perceive a lack of love in routine interactions and ultimately behave in ways that drive their partner away (Murray, Rose, Bellavia, Holmes, & Kusche, 2002).

Belonging is a kind of relationship with a setting, and it has similar properties. As basic research shows, when people feel they belong, they tend to be more motivated in that setting. In one study, simply sharing a birthday with a former math major increased undergraduates' motivation in math (Walton, Cohen, et al., 2012). Moreover, a sense of belonging leads people to engage with others in ways that drive lasting change—for instance, to reach out to develop friendships and mentor relationships (Walton & Cohen, 2007). Correspondingly, a student who worries that people like her may not belong in a school context (i.e., experiences belonging uncertainty) may see adverse everyday experiences such as the receipt of critical feedback or feelings of loneliness as confirmation that she does not belong. As a result, the student may not take advantage

of opportunities for learning, such as attending office hours or meeting in study groups, and not build relationships with peers and teachers necessary for belonging and success (Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002; Walton & Cohen, 2007). Such students may find their original fear confirmed, while the role of their behavior in contributing to this outcome remains obscure to them. In this way, a psychological process (beliefs about belonging) can affect interpersonal processes (e.g., the quality of relationships) that further reinforce that psychological process to affect outcomes over time. If so, altering this psychological process may cause lasting change (Walton & Cohen, 2011; Yeager et al., 2016; for reviews, see Cohen & Sherman, 2014; Kenthirajah & Walton, 2015; Walton, 2014; Yeager & Walton, 2011).

Our theoretical analysis implies four important considerations as we review different questions people ask about belonging and corresponding strategies to help people experience a sense of belonging in important settings.

First, if belonging is fundamentally a perception of the fit between the self and a context, then, in theory, the questions people ask themselves can involve, and corresponding interventions can address, perceptions primarily of either the self or the context, or both.

Second, insofar as people are responding to perceived symbolic meanings, interventions to facilitate a sense of belonging traffic in these meanings (see Ross & Nisbett, 1991; Walton & Wilson, 2016). Thus, interventions need not go so far as to establish a positive relationship in a setting or assign people to a "team," though some do (Wing & Jeffery, 1999). Instead, many effective approaches adjust seemingly subtle cues but ones that directly shape the inferences a person draws about his or her relationships with others and a setting (e.g., Carr & Walton, 2014; Walton, Cohen, et al., 2012).

Third, given the power of recursion, inferences about belonging need not—and often do not—stay in a person's head. They tend to become self-fulfilling, and, when positive, help people build substantive relationships and accrue other assets in a setting. A further consequence of recursion is that

interventions to address belonging can be most effective when delivered early in a setting and, when this is done, can cause lasting benefits (Cohen & Sherman, 2014; Walton, 2014; Yeager & Walton, 2011). As will be seen, some interventions aimed at bolstering students' sense of belonging in the critical transition to college have improved life outcomes into adulthood (see Brady, Walton, Jarvis, & Cohen, 2016).

Fourth, belonging is one of the most important human needs (Baumeister & Leary, 1995). It therefore functions as a psychological hub and facilitates diverse important outcomes—from motivation and achievement to health and well-being—and, as noted, can do so over time. Thus, understanding belonging—including how people make sense of their belonging and how to foster it—is essential for both theory and application in diverse areas.

### **INTERVENTIONS THAT ADDRESS QUESTIONS ABOUT THE SOCIAL CONTEXT (AND THE SELF)**

When people first enter a new setting, a primary question they ask is “What is this place like, and can I fit into it?” This question can come in many forms. For a summary, see Table 15.1.

#### **Question 1: “Does Anyone Here Even Notice Me?”**

In Disney's adaptations of *Winnie the Pooh*, the pessimistic donkey Eeyore complains, “Don't pay any attention to me. Nobody ever does” (Reinert, 1983). At a most basic level, people want to be recognized, to be seen, by others. Indeed, recognition is a precondition for forming social relationships and, therefore experiencing a sense of belonging in a setting.

When people feel invisible, they suffer (Williams, 2009). It is no accident that Eeyore is depicted as depressed. *Loneliness*—which can be defined as the subjective feeling of being alone, of being disconnected from others, of having “one's intimate and social needs . . . not adequately met” (Hughes, Waite, Hawkley, & Cacioppo, 2004, p. 656)—is one of the strongest

predictors of poor health and well-being (Cacioppo & Patrick, 2008). When people feel invisible, even small acts of social recognition can carry a powerful meaning. When Eeyore is noticed, he says, “Thanks for noticin' me” (Reitherman & Disney, 1968).

Such small acts can have powerful benefits for vulnerable populations. In one study, people released from hospitals after having been admitted for depression or suicidal ideation were randomized to receive periodic postcards from a staff member they had met at the hospital over the next 5 years. These notes simply acknowledged the person and expressed support (e.g., “Dear [former patient's name]: It has been some time since you were here at the hospital, and we hope things are going well for you. If you wish to drop us a note, we would be glad to hear from you.”). Compared to a business-as-usual control group (i.e., same hospital treatment, no follow-up postcards), the postcard treatment reduced subsequent suicide rates over the next 2 years (from 3.52 to 1.80%), with effects tapering off subsequently (Motto & Bostrom, 2001). Moreover, about one in four treatment participants spontaneously expressed thanks for the postcards in written responses, which suggest the meaning the notes had for them—for example, “Thank you for your continued interest”; “I really appreciate your persistence and concern”; “Your note gave me a warm, pleasant feeling. Just knowing someone cares means a lot”; “I was surprised to get your letter. I thought that when a patient left the hospital your concern ended here”; “You will never know what your little notes mean to me. I always think someone cares about what happens to me, even if my family did kick me out. I am really grateful.” In a second study, such postcards reduced readmissions for self-poisoning by 50% over the next 5 years (Carter, Clover, Whyte, Dawson, & D'Este, 2013).

Socially excluded adolescents may also feel they lack social recognition. Another area of research found that simply addressing socially excluded adolescents by first name, both in person by an experimenter and in a letter from the school principal (rather than “Dear Student”), reduced feelings of loneliness (Brummelman et al., 2016).

Invisibility can also take a group form (Ellison, 1952), and gestures of inclusion

**TABLE 15.1. "What Is This Place—And How Do I Fit into It?": Changing Representations of the Social Context to Promote Belonging**

Belonging question/ worry	Remedy	Example(s)
People feel invisible: "Does anyone here even notice me?"	Recognize and acknowledge people	<ul style="list-style-type: none"> <li>• People released following hospitalization for suicidal or depressive thoughts were less likely to commit suicide if they received periodic supportive letters from a hospital staff member over several years after having been discharged (Motto &amp; Bostrom, 2001).</li> </ul>
People feel disconnected: "Are there people here whom I connect to?"	Facilitate a sense of personal connection to other people in a setting	<ul style="list-style-type: none"> <li>• Students who found they shared a birthday with a former math major showed greater interest and motivation in math (Walton et al., 2012).</li> <li>• Showing teachers personal preferences they shared with individual black and Latino ninth-grade students raised course grades among those students (Gehlbach et al., 2016).</li> </ul>
	Facilitate a sense of working toward common goals with other people in a setting	<ul style="list-style-type: none"> <li>• People treated by peers as partners working together on a task showed greater intrinsic motivation, enjoying the task more, persisting longer and performing better on it, and, in some cases, choosing to do more, similar tasks 1–2 weeks later (Carr &amp; Walton, 2014).</li> </ul>
People worry that they are devalued: "Do people here value (people like) me?"	Provide a narrative with which to understand common challenges in the setting so they do not seem to impugn one's belonging	<ul style="list-style-type: none"> <li>• First-year black students who learned that feelings of nonbelonging are normal in the transition to college and improve with time earned higher grades through senior year, reducing the racial achievement gap by 50%, and reported more confidence in their belonging and greater happiness at the end of college (Walton &amp; Cohen, 2007, 2011; see also Walton et al., 2015; Yeager et al., 2016).</li> <li>• First-year, first-generation college students who learned about the shared and unique challenges faced by first-generation students in college and how these improve over time exhibited reduced stress, increased feelings of social acceptance, and earned higher grades over the first year of college (Stephens et al., 2014).</li> </ul>
	Broaden representations of who belongs in the setting	<ul style="list-style-type: none"> <li>• Increasing the representation of women in a math and science conference increased women's anticipated belonging in the conference, and reduced threat and vigilance (Murphy et al., 2007).</li> <li>• Replacing objects that evoke masculine stereotypes of computer science with neutral objects increased women's interest and anticipated belonging in the field (Cheryan et al., 2009).</li> </ul>
	Represent specific institutional actions that could seem to threaten belonging so they do not	<ul style="list-style-type: none"> <li>• Reducing the stigmatization implied in a letter placing students on academic probation reduced the likelihood that students received a more severe academic status (e.g., suspension) or dropped out a year later (Brady, Fotuhi, et al., 2016).</li> <li>• Encouraging teachers to adapt an empathic rather than punitive mindset toward misbehaving students increased students' respect for teachers and reduced suspension rates over an academic year (Okonofua et al., 2016).</li> </ul>
People devalue the setting: "Is this a setting in which I want to belong?"	Represent the setting as offering opportunities to pursue valued goals	<ul style="list-style-type: none"> <li>• People and especially women expressed greater interest in math and science when the opportunities those fields offer to fulfill communal goals—to help others and work collaboratively—were highlighted (Diekmann et al., 2011).</li> </ul>

across group lines can remedy this. In one study, being asked for directions by a white confederate, instead of observing a white or Asian person be asked, led to black and Latino (but not white or Asian) commuters to express greater interest in taking part in local political activities, which may reflect a greater sense of membership in the civic community (Howe, Bryan, & Walton, 2016). There was no such effect for white or Asian commuters.

**Question 2: "Are There People Here Whom I Connect To?"**

People can also feel disconnected from others in a specific setting. Yet small cues of similarity or connectedness can open the door to a potential relationship. In *The Four Loves*, C. S. Lewis (1960) writes:

Friendship arises . . . when two or more . . . companions discover that they have in common some insight or interest or even taste which the others do not share and which, till that moment, each believed to be his own unique treasure (or burden). The typical expression of opening Friendship would be something like, "What? You too? I thought I was the only one." (p. 65)

Walton, Cohen, and colleagues (2012) use the term *mere belonging* to describe how even minor cues can create a sense of social connection to new interaction partners. Moreover, when this person represents a setting, this personal tie can signal an opportunity to connect to the setting more broadly and, in so doing, enhance motivation. In a series of studies, undergraduates expressed greater interest in math and worked longer on a math puzzle when they believed they shared a birthday with a math major (compared to simply being exposed to this person), and when they believed themselves to be part of a minimal "numbers group" (compared to being labeled "the numbers person"). These gains in motivation were mediated by a greater sense of social connection to the math department as a whole. Thus, cues of social connection themselves gave rise to socially shared motivations (see also Brannon & Walton, 2013; Cwir, Carr, Walton, & Spencer, 2011; Shteynberg & Apfelbaum, 2013; Shteynberg & Galinsky,

2011). They did so by helping people answer "yes" to the implied question, "Are there people here to whom I can connect?"

Such effects arise at an early age. Preschoolers exhibit greater motivation when assigned to a minimal "puzzles group" than when identified as the "puzzles child" (Master & Walton, 2013; see also Master, Cheryan, & Meltzoff, in press). Even 1- and 2-year-olds are sensitive to reciprocal social exchanges. Barragan and Dweck (2014) found that children showed greater altruism when a partner had first rolled a ball back and forth with them than when they had played separately. Like adults, infants and toddlers are sensitive to cues that imply to whom they are connected, and behave accordingly.

Extending this laboratory work, field research shows that facilitating opportunities for social connection in school settings can have powerful benefits, especially for students from groups that are marginalized. For instance, taking advantage of a natural experiment, Shook and Clay (2012) found that ethnic-minority first-year students in a predominantly white university assigned a white roommate rather than an ethnic-minority roommate reported a greater sense of belonging on campus at the end of the first year, and this mediated higher grades. Gehlbach and colleagues (2016) gave ninth-grade teachers information about personal preferences they shared with individual black and Latino students in their classes on the premise that doing so might facilitate better teacher-student relationships (Walton, Cohen, et al., 2012). Ethnic-minority students' course grades rose, reducing the racial achievement gap by 60% (see also Bowen, Wegmann, & Webber, 2012).

These studies examined opportunities to build relationships and personal similarities. Cues that signal an opportunity to work with others on a task or toward a common goal are also psychologically powerful. Indeed, given the benefits of working together for both individuals and society, people may generally be motivated by opportunities to work together (Tomasello, Carpenter, Call, Behne, & Moll, 2005). For instance, creating teams to support personal goal pursuits can facilitate better outcomes (e.g., weight loss; Prestwich et al., 2012; Wing & Jeffery,

1999); imagining that an otherwise boring task will be done with others rather than alone increases interest (described in Master, Butler, & Walton, in press); and knowing that people similar to oneself share a goal promotes pursuit of that goal (Shteynberg & Galinsky, 2011). Even small social acts that suggest that other people think of one as a partner working on a task can facilitate motivation (Carr & Walton, 2014). In one series of studies, participants were told they would work “together” on a challenging puzzle and received a “tip” from a peer working on the same puzzle. Being treated by a peer as working together on the puzzle increased participants’ intrinsic motivation for it, leading them to persist longer on it, to report enjoying it more, to perform better on it, and, in some conditions, to choose to do more similar puzzles 1–2 weeks later. These gains were found relative to a condition in which people worked on the same puzzle, knowing that others were also working on it. However, they were not told they were working “together,” and the tip they received was attributed to the experimenter, not to another participant. This latter condition represented participants’ work as done in parallel to others but separately from them (for related research with young children, see Butler & Walton, 2013). The results suggest that experiences are more meaningful and motivational when they are experienced as done together, and this sense of togetherness can be created through simple symbolic social acts.

**Question 3: “Do People Here Value (People Like) Me?”**

An especially painful experience of nonbelonging arises when people want to belong in a valued school or work setting yet harbor persistent doubts about whether they or people like them can belong. Earlier we described this as belonging uncertainty (Walton & Cohen, 2007).

Consider the transition to college. Although this transition is difficult for all students, those from groups that are socially and economically disadvantaged in higher education, such as first-generation college students and students who face stereotypes that impugn their group’s intellectual

abilities, may experience the most significant and complicated challenges to belonging. Indeed, stories from many students from disadvantaged backgrounds highlight belonging concerns. In her senior thesis, after having spent nearly 4 years in college, Michelle Obama wrote, “I sometimes feel like a visitor on campus; as if I really don’t belong. . . . It often seems as if . . . I will always be Black first and a student second” (Robinson, 1985, p. 2). Justice Sonia Sotomayor has said that she felt like “a visitor landing in an alien country” in college (Ludden & Weeks, 2009). One low-income student from rural South Dakota said of her transition to a small New England college, “I kind of feel like I’ve been dropped on Mars. . . . I mean, it’s so different” (Aries & Berman, 2013, p. 1).

Students from groups that are disadvantaged in college may experience unique kinds of challenges, such as experiences of discrimination and a cultural mismatch (e.g., Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). Moreover, when college appears to be a foreign cultural and social place, even adversities that are experienced by many students can take on especially threatening meanings. When a student who is already worried about whether she belongs fails a first-semester midterm, has a conflict with a roommate, or feels lonely or homesick, she may wonder whether this means people like her simply do not belong in college. These worries can lead students to withdraw from the academic environment and become self-fulfilling (Mendoza-Denton et al., 2002; Walton & Cohen, 2007). In one study of graduates of a high-performing urban charter network, worries about belonging in college were more predictive of lower rates of full-time college enrollment the next year than every other “noncognitive” measure assessed (e.g., Big Five personality traits, test anxiety, grit, self-control, growth-mindset of intelligence; Yeager et al., 2016). When the burden of this recursive process falls disproportionately on students from socially disadvantaged backgrounds, it further contributes to social inequality.

When people enter settings they value but where their group is disadvantaged, how can we help them feel more secure in their belonging? Research suggests three complementary approaches.

*Approach 1: Provide a Narrative with Which to Understand Common Challenges So They Do Not Impugn One's Belonging*

In navigating a difficult transition like going to college, people experience a great variety of challenges that can lead them to question their prospects of belonging. Thus, it can be helpful to equip people with ways of making sense of these challenges, so that they do not seem to impugn their global belonging or potential. Just knowing that many challenges are normal can go a long way because people often experience a kind of pluralistic ignorance about struggles (Prentice & Miller, 1993). When students think that challenges are personal or specific to their group, not shared widely, they may feel like “imposters” who do not belong or cannot succeed.

One important intervention strategy is therefore to provide information that helps students see that difficulties are common early in an academic transition, that these difficulties reflect the challenges of the transition, and that they improve with time. Classic interventions conveyed stories from upper-year students to struggling first-year college students about how poor grades are common at first in college and reflect the challenges of adjusting to college (e.g., getting used to new living conditions, learning to study for college classes). This improved recipients' grades and retention over a period of years (Wilson, Damiani, & Shelton, 2002).

Extending this approach, Walton and Cohen (2007, 2011) developed a *social-belonging intervention*, which uses information and stories from older students to convey that worries about belonging and social challenges—like feeling intimidated by professors, struggling to make friends, or receiving critical academic feedback—are common at first in the transition to college (e.g., experienced by students of all racial backgrounds) and improve with time. These materials were designed to prevent students from racial-minority backgrounds from inferring that such challenges mean that “people like me” do not belong here. First-year students reflected on these materials and, then, in an effort to help them connect this process of adjustment with

their own experience, wrote essays and recorded a video describing how this process of change was true for them. These materials, students were told, could be shared with future students to improve their transition to college. As predicted, this exercise, which students completed in a 1-hour session in the spring of their first year of college, improved diverse outcomes for black students, who face negative stereotypes in college. It increased black students' engagement in the academic environment over the next week: for instance, they were more likely to e-mail professors, attend office hours, and meet with study groups (Walton & Cohen, 2007). Moreover, compared to several active control conditions, the exercise raised black students' grades through the end of college, cutting the racial achievement gap by half (Walton & Cohen, 2011). At the end of college, treated black students also reported being happier, healthier, and more confident in their belonging in college. Notably, at this point, students did not remember the intervention well or credit their success in college to it. Instead, the intervention seemed to improve outcomes by instigating the predicted change in social inference. Daily diaries completed in the week after the intervention (i.e., in students' first year of college) showed that the intervention prevented black students from experiencing a lack of belonging on days when they encountered greater adversities. This change in meaning mediated the long-term effects on achievement.

Understanding everyday adversities as normal challenges that can be overcome may help a student remain engaged in the academic environment, and build relationships that support lasting success (Walton & Cohen, 2007). Consistent with this reasoning, a follow-up in young adulthood found that the intervention delivered in students' first year of college improved graduates' life and job satisfaction 5.5 years after college (8.5 years after initial study participation; Brady, Walton, et al., 2016). These gains were not mediated by better college grades. Instead, graduates reported having developed more significant and lasting mentor relationships in college, and this mediated a better postcollege life. The results underscore the power of a recursive cycle in which students make sense of adversities in more



adaptive ways beginning at a critical period, sustain engagement and build better relationships, which in turn further support a sense of belonging and better life outcomes.

The social-belonging intervention has been adapted for and shown to be effective in diverse populations. Among women in male-dominated engineering majors, it raised first-year grades, eliminating gender disparities, and promoted women's friendships with male peers (Walton, Logel, Peach, Spencer, & Zanna, 2015). Among African American boys entering middle school, it reduced discipline citations over 7 years through the completion of high school apparently by improving cycles of interactions and relationships with teachers (Goyer et al., 2016). Additionally, it can be effective when delivered online to full incoming classes prior to the first year of college (Yeager et al., 2016). In three large-scale trials, prematriculation versions of the social-belonging and related interventions improved academic outcomes for full cohorts of socially and economically disadvantaged students (i.e., racial- and ethnic-minority students, first-generation college students; total  $N > 9,500$ ), increasing full-time enrollment and grade point average over the first year. These effects correspond to reductions of 31–40% in the raw achievement gaps observed at these institutions. In several cases, these effects were mediated by gains in social capital, including greater friendship development, participation in student groups, and development of mentor relationships.

Whereas the social-belonging intervention focuses on normal challenges students encounter in a transition, it can also be helpful to help students make sense of unique challenges that arise from their group identities. For instance, Stephens, Hamedani, and Destin (2014) developed a *difference-education* intervention, which exposed first-generation college students to a panel discussion in which, among other themes, peers described how their first-generation status had affected their experience in college, and how they responded to these challenges successfully. Compared to a panel discussion without this theme, the difference-education panel led first-generation students to report feeling less stressed about college, more socially accepted, and more connected to and at home at their college at the end of

the first year. It also led to higher first-year grades and greater use of resources such as office hours and mentorship (see also Stephens, Townsend, Hamedani, Destin, & Manzo, 2015).

#### *Approach 2: Broaden Representations of Who Belongs in a Setting*

When people worry about whether people like them can belong in a valued setting, they attend to cues that communicate—sometimes subtly, sometimes overtly—who fits there (Murphy & Taylor, 2012; Steele et al., 2002). Such cues often matter most when people are first trying to make sense of a setting. With insight into people's worries and the corresponding cues to which they attend, early negative impressions can be prevented.

A basic cue is group representation. As tennis great Arthur Ashe wrote, "Like many other blacks, when I find myself in a new public situation, I will count. I always count. I count the number of black and brown faces present" (Ashe & Rampersad, 1993, p. 144). In one study, women watched a video depicting a math and science conference in which men outnumbered women, as is typical (Murphy, Steele, & Gross, 2007). Compared to women who saw a video with an equal gender balance, those who saw the gender-unbalanced video were more cognitively and physiologically vigilant, remembering more details of the video and showing a physiological stress response. They also anticipated feeling they would belong less at the conference and expressed less desire to attend it. Men were unaffected by the gender-ratio manipulation. Other studies find that when women actually work in math, science, and engineering settings dominated by men, they tend to experience a lower sense of belonging and perform worse (e.g., Dasgupta, Scircle, & Hunsinger, 2015; Inzlicht & Ben-Zeev, 2000; Walton et al., 2015). One reason a lack of ingroup representation is harmful is because it can increase pressure to "represent" one's group well. Supreme Court Justice Sandra Day O'Connor described her experience when Justice Ruth Bader Ginsburg joined the Court: "The minute Justice Ginsburg came to the court, we were nine justices. It wasn't seven and then 'the women.' We became

seven and then ‘the women.’ We became nine. It was a great relief to me” (Woodruff, 2003).

Thus, it is beneficial to include a critical mass of people from important identity groups in school and work settings. One study found that creating female-majority or gender-equal work groups among engineering students increased women’s participation, confidence, and aspirations in the field (Dasgupta et al., 2015). It is also important to depict this diversity, such as by highlighting ingroup role models who show that success and inclusion are possible for people from diverse backgrounds (e.g., McIntyre, Paulson, & Lord, 2003). In one study, simply including images of female scientists in a chemistry textbook increased learning among high school girls (Good, Woodzicka, & Wingfield, 2010; see also Rios, Stewart, & Winter, 2010). In another, exposure to an academically successful Native American increased a sense of belonging in Native American middle school students compared to an ethnically ambiguous or white role model (Covarrubias & Fryberg, 2015; see also Lockwood, 2006).

There are important outstanding questions about critical mass to pursue in future research. For instance, at what point is critical mass achieved so as to allay worries about belonging? How does this vary in different contexts, or for different people? For instance, do upper-class blacks benefit from knowing that working-class blacks are numerous in a setting? In general, the answers to questions like these will depend on the meaning numeric representation carries in a given context: Does the presence of ingroup members give a person confidence that “people like me” can belong and succeed in the setting? There is unlikely to be a magic point at which critical mass is achieved for all people from all groups or in all settings.

Beyond numeric representation, people attend to cues that imply what *type* of person belongs in a setting. One study found that a 2-minute conversation with a computer science major who embodied classic stereotypes about computer science undermined women’s interest in the field up to 2 weeks later. These effects were mediated by a reduced sense of belonging, and they arose regardless of the major’s gender (Cheryan,

Drury, & Vichayapai, 2013). Such cues can project a narrow stereotype of who belongs in a context, decreasing interest for people who do not fit that representation. But representations can be broadened in a number of ways. In one study we have already noted, when women completed a survey in a computer science room filled with objects that challenged geeky masculine stereotypes about computer scientists (e.g., nature posters instead of *Star Trek* poster), women saw the field as less masculine, anticipated belonging more, and expressed greater interest in it (Cheryan et al., 2009). Information that computer scientists no longer fit prevalent stereotypes can also increase women’s interest in the field (Cheryan, Plaut, Handron, & Hudson, 2013; see also Cheryan, Siy, Vichayapai, Drury, & Kim, 2011). Representations of who belongs can also be shaped by curricula. Using a regression discontinuity design, one study found evidence that an ethnic studies course raised attendance, credits earned, and full-year grades among Asian and Hispanic students in ninth grade (Dee & Penner, in press).

How an organization presents itself also matters. A company that states explicitly that it values diversity, as compared to endorsing a color-blindness philosophy that denies the importance of race, can increase trust among black professionals, and do so even when they company is not (yet) diverse (Purdie-Vaughns, Steele, Davies, Ditlmann, & Crosby, 2008). Job advertisements are another important signal of who belongs at a company. Gaucher, Friesen, and Kay (2011) found that job ads for male-dominated fields tended to use more words associated with male stereotypes (e.g., *leader, competitive, dominant*). The use of these words led both men and women to perceive that there would be more men in the occupation, and it led women to find these jobs less appealing, an effect mediated by a lower anticipated belonging (see also Stout & Dasgupta, 2011; Vervecken, Hannover, & Wolter, 2013). A further way that companies signal, even inadvertently, an exclusive work environment is by promulgating a culture that prizes “talent” and “genius” over growth and development (Murphy & Dweck, 2010). The notion that some people “have it”—and others don’t—can convey exclusion to people who are not stereotypically associated

& Murphy, 2015; Good, Rattan, & Dweck, 2012).

Interpersonal interactions can also make people feel personally excluded or disrespected. One series of studies found that talking about engineering with a male peer who acted in a dominant and flirty manner undermined female engineering students and their engineering performance (Logel et al., 2009). Similarly, in a field study of professional female engineers, negative conversations with male colleagues predicted feelings of threat and burnout on a day-to-day basis (Hall, Schmader, & Croft, 2015). In contrast, interactions that signal inclusion and respect as a work partner can improve outcomes for women in quantitative fields (Aguilar, Carr, & Walton, 2016). An especially important interpersonal context involves the provision of critical feedback, which provides an invaluable opportunity for learning and growth but can also appear to recipients to reflect bias or disrespect (Cohen et al., 1999). One field experiment found that a single instance of disambiguating the meaning of critical feedback by prefacing it with an explicit message that the feedback reflected the teacher's belief in the student's potential to reach a higher standard improved motivation and trust among black adolescents over months (Yeager, Purdie-Vaughns, et al., 2014).

These lines of research underscore the value of making sense of the social world from the perspective of members of groups that are marginalized in a setting. From this perspective, even subtle cues that raise the prospect of group-based devaluation, disrespect, or exclusion can undermine a sense of belonging. With an understanding of these cues and this meaning-making process, organizations can address specific aspects of the environment to include people from diverse backgrounds.

*Approach 3: Represent Specific Institutional Actions That Could Seem to Threaten Belonging So They Do Not*

Sometimes it is not so much subtle cues as specific actions taken by institutions or institutional actors that lead people to feel they do not belong. Disciplinary action, for instance, directly indicates to a person that he or she has not met community standards.

It may also seem to convey that the person is not valued or respected, or is seen as less worthy or capable than others, even when these meanings are not intended. However, such inferences and negative downstream consequences can be prevented.

In primary and secondary school, teachers have available to them two very different models for responding to student misbehavior. A dominant approach to discipline in many schools is punitive. Derived in part from a behaviorist psychology of rewards and punishments, this approach encourages severe punishment for even minor misbehaviors (e.g., zero-tolerance policies). This is thought to motivate students to behave well, to help teachers maintain control of the class, and therefore to promote learning. However, a punitive approach can also lead misbehaving students to believe they are not wanted in class. An alternative approach, termed *empathic discipline*, emphasizes understanding the perspectives of misbehaving students, sustaining positive relationships, and helping students improve from within the context of supportive relationships. This approach is deeply rooted in the core professional values of teachers; yet it stands in tension with a more punitive approach. Consistent with the view that teachers have access to both models, Okonofua, Paunesku, and Walton (2016) found that simply priming teachers with one model of discipline or the other radically shaped their responses to hypothetical instances of student misbehavior: When primed with a punishment model, teachers treated misbehaving students in far more punitive ways, for instance, threatening to send a child to the principal's office for a minor infraction rather than talking with him about his behavior. Moreover, when students imagined receiving paradigmatic treatment from teachers exposed to the punitive prime, they expressed far less respect for the teacher and were less motivated to behave well in the future. Finally, in an intervention field experiment, math teachers at five middle schools in three districts reviewed articles and stories from students and teachers describing the empathic mindset about discipline. Then, to promote internalization, teachers described how they use this approach with their own students. Compared to students whose math teachers completed randomized control materials,

the intervention halved yearlong suspension rates, from 9.6 to 4.8%. It also bolstered the respect the most at-risk students, those who had previously been suspended, perceived from their teachers.

In a second example, a selective university approached us concerned about its academic probation process (Brady, Fotuhi, Gomez, Cohen, & Walton, 2016). This process was designed to alert students not making satisfactory academic progress to this fact and to help them improve. Yet in a survey, previous probationary students expressed considerable shame and stigma regarding probation and, specifically, the probation notification letter. Students said: "I felt incredibly alone . . . I felt like I couldn't tell anyone" and "Being on probation sucked. . . . For some time after getting the [notification] letter, I felt that I didn't belong." Therefore, we revised the notification letter to mitigate these stigmatizing inferences. The revision described probation as a process not a label; conveyed that many students experience probation and do so for a variety of valid reasons (e.g., physical health, mental health, family circumstances, adjustment difficulties, etc.); highlighted the university's positive, improvement-oriented goals for probation; and offered hope for returning to good standing. In a field experiment, students who received the revised letter were marginally more likely than those who received the prior letter to reach out to an advisor soon after notification. A year later, they were less likely to have received a more serious academic status (e.g., suspension) and more likely to still be enrolled at the university.

School discipline and academic probation are actions an institution takes toward a particular student, and may reasonably raise doubt in that student's mind about the quality of their relationship with the institution going forward. In other cases, the institutional action may be impersonal, yet bring to the fore differential group-based perspectives. Take bureaucratic red tape, a prototypical impersonal experience. Reeves, Murphy, D'Mello, and Yeager (2015) found in laboratory experiments that frustrating academic forms and confusing course selection processes were negative for all students but elicited belonging concerns specifically among first-generation college students. Students without a history of family success

in higher education may wonder whether bureaucratic difficulties mean they lack "inside knowledge" to succeed. Could cutting red tape reduce hassles for everyone and help mitigate social class inequalities?

#### ***Question 4: "Is This a Setting in Which I Want to Belong?"***

Although people often see the school and work settings in which they live as desirable and therefore aspire to belong in them, in some contexts the question is not "Do I belong?" but "Do I want to belong?" It can thus be important to identify what prevents people from seeing a setting as desirable.

One obstacle to interest in math, science, and engineering fields is the perception that these fields do not allow for communal goals—opportunities to work with and/or to help others. This perception is most detrimental for women, who are more likely to hold communal goals. Correcting this misperception—by highlighting the collaborative nature of science and opportunities to contribute to the social good—can increase interest in pursuing science, especially among women (Diekmann, Clark, Johnston, Brown, & Steinberg, 2011; Diekmann, Weisgram, & Belanger, 2015; see also Grant, 2008; Grant & Hofmann, 2011; Yeager, Henderson, et al., 2014).

Sometimes the setting itself is stigmatized. "Developmental" (i.e., remedial) math programs in community college are an essential educational context for lower-income adults aiming to improve their life circumstances. Almost two-thirds of community college students are assigned to take at least one developmental math or reading course, yet completion rates are abysmal; some estimate that just 20% of students complete the math sequence to which they are referred (e.g., Bailey, Jeong, & Cho, 2010). Revealingly, Reeves, Yeager, and Walton (2016) found that 4-year college students distance themselves academically and socially from developmental math students, and do so as much, if not more so, than from traditionally stigmatized groups (e.g., people who are obese, people who are transgender). These findings raise important questions. Do students in developmental math also see their peers in a stigmatized light? Does this discourage students from developing friendships and study

groups with classmates? If so, is it possible to mitigate this stigma, such as by acquainting students with the higher-order purposes they share with their classmates for pursuing developmental math (e.g., to gain skills, to improve their family circumstances, to contribute to their communities; cf. Schroeder & Prentice, 1998; Yeager, Henderson, et al., 2014)?

### INTERVENTIONS THAT ADDRESS QUESTIONS ABOUT THE SELF (IN A SOCIAL CONTEXT)

So far, we have discussed questions about belonging that primarily address the context the person is in. But, as we noted in the introduction, belonging is a matter of the fit between a setting and the self, who one can be in that setting. Another way to promote belonging and better outcomes is thus to help people feel positively about who they are or could become in a setting. For a summary of belonging questions that focus on the self, see Table 15.2.

#### Question 5: "Can I Be More Than a Stereotype Here?"

When people face negative stereotypes about important social groups to which they belong, a key concern involves the possibility that they could be seen through the lens of the stereotype or reduced to token status, and not be seen as or able to be a full person in that context (Steele, 1997). Michelle Obama illustrates this concern in her thesis quoted earlier, in which she worried that she was seen as "Black first and a student second."

A strikingly powerful way to help people feel they are more than a stereotype in a setting is the *self-affirmation* intervention (Cohen & Sherman, 2014; see Cohen, Garcia, & Goyer, Chapter 35, this volume). In its most common form, *values affirmation*, people take a psychological time-out to reflect on personal values that matter to them. They review a list of values (e.g., "sense of humor," "relationships with friends and family"), select those that are most important to them, then write for 10–15 minutes about why these values

**TABLE 15.2. "Who Am I/We Here?": Changing Representations of the Self to Promote Belonging**

Belonging question/worry	Remedy	Example
People feel they cannot be a full person in a setting: "Can I be more than a stereotype here?"	Offer opportunities for people to reflect on personally important values within a setting	<ul style="list-style-type: none"> <li>• Values-affirmation exercises, in which students wrote about their most important values in an in-class exercise at the beginning of seventh grade, improved the grades of black students and reduced the likelihood that they would be recommended to remedial courses (Cohen et al., 2009).</li> <li>• Encouraging women enrolled in male-dominated engineering majors to incorporate values into their daily lives to maintain balance and manage stress, helped women function more effectively in the face of daily adversities and improved first-year grades, eliminating gender differences (Walton et al., 2015).</li> </ul>
People feel that who they are is incompatible with a setting or behavior: "Are people like me incompatible with this setting or behavior?"	Change representations of the ingroup to facilitate a perceived fit with the setting/behavior	<ul style="list-style-type: none"> <li>• Midwestern housewives were more likely to serve organ meats to their families after participating in a small-group discussion, which highlighted a collective decision to do so, than after a persuasive lecture appeal (Lewin, 1958).</li> <li>• Learning that peers are less comfortable with drinking than they appear reduced drinking most among students who felt uncomfortable with drinking but feared the negative judgment of peers (Schroeder &amp; Prentice, 1998).</li> <li>• Exposure to an academically successful Native American enhanced the academic belonging of Native American students (Covarrubias &amp; Fryberg, 2015).</li> </ul>

matter to them. Values affirmation can improve health and achievement in diverse populations. The benefits are often greatest for people who are experiencing identity threat or other kinds of acute threats. In studies with adolescents, for instance, completing several such exercises as in-class writing assignments beginning at the outset of seventh grade raised achievement among black students, with gains for the most at-risk students, those performing poorly prior to treatment, persisting through the end of eighth grade (Cohen, Garcia, Purdie-Vaughns, Apfel, & Brzustoski, 2009). The benefits of value-affirmation among students who face identity threat has been replicated many times (e.g., Bowen, Wegmann, & Webber, 2013; Cook, Purdie-Vaughns, Garcia, & Cohen, 2012; Harackiewicz et al., 2014; Miyake et al., 2010; Sherman et al., 2013; Walton et al., 2015). Hanselman, Bruch, Gamoran, and Borman (2014) tested values-affirmation exercises in a randomized trial in all middle schools in a medium-size school district; the benefits were greatest for racial- and ethnic-minority students and in schools in which they were underrepresented and achievement gaps were largest—where identity threat that arises from the awareness of negative stereotypes may be largest.

How does affirmation relate to belonging? Self-affirmation theory argues that people aim to maintain a general sense of themselves as capable and good (Steele, 1988). Psychological threats imperil this general sense of goodness and capability. Moreover, threats are focal and induce a kind of tunnel vision. They narrow people's working self-concept to the threat and cause people to respond defensively (Cohen & Sherman, 2014). When chronic, identity threat contributes to a recursive cycle in which threat breeds distraction, anxiety, and poor performance, which exacerbate threat in an ongoing cycle (Cohen et al., 2009).

Affirmation exercises signal to people that they can be more than that threatened aspect of self in the setting (Cohen & Sherman, 2014; Sherman & Hartson, 2011; Walton, Paunesku, & Dweck, 2012). In so doing, they can reduce defensiveness and open people up, facilitating positive relationships and belonging that improve outcomes over time. Consistent with this hypothesis, laboratory

research finds that value-affirmation exercises expand the working self-concept and discourage people from seeing threats as self-defining (Critcher & Dunning, 2015), a finding echoed in field experiments (Sherman et al., 2013). Furthermore, affirmations evoke prosocial feelings such as love and connectedness, which can mediate benefits (Crocker, Niiya, & Mischkowski, 2008). Such feelings readily follow from the fact that people's most cherished values often represent their relationships, communities, and social identities.

Furthermore, personal values offer important opportunities to connect with others. Insofar as affirmations encourage people to express more of who they are in a setting, this may facilitate the development of positive relationships (see Aron, Melinat, Aron, Vallone, & Bator, 1997; Gehlbach et al., 2016; Walton, Cohen, et al., 2012). Indeed, affirmations are of most benefit when students write about ways that values connect them to others (Shnabel, Purdie-Vaughns, Cook, Garcia, & Cohen, 2013; see also Fotuhi, Spencer, Fong, & Zanna, 2014; cf. Tilletts et al., 2016). This may be one reason why affirmation helps promote positive relationships and a sense of belonging. In one study, value affirmations increased students' prosocial feelings and behaviors over 3 months (Thomaes, Bushman, de Castro, & Reijntjes, 2012; see also Stinson, Logel, Shepherd, & Zanna, 2011); another found that an affirmation delivered early in the school year helped black middle school students maintain a high sense of belonging over time, and did so even when they struggled academically (Cook, Purdie-Vaughns, Garcia, & Cohen, 2012; for related effects, see Harackiewicz et al., 2014; Sherman et al., 2013). A final study examined affirmation among white first-year teachers teaching predominantly minority students, who, like their students, may experience a form of identity threat in school (Carr, Dweck, & Pauker, 2012; Goff, Steele, & Davies, 2008). Teachers who completed an affirmation exercise in the first 4 months of the school year reported better relationships with their students and a greater sense of belonging at school at the end of the year than teachers who completed control materials (Brady & Cohen, 2016).

The hypothesis that affirmation works, in part, by opening people up and encouraging them to be more of who they are in a setting, which helps them connect with others, is consistent with past research but has never been tested directly. A critical question for future research is to understand further how affirmation changes the way people interact with others in settings, how this may facilitate positive relationships, and the psychological mechanisms that contribute to these processes.

**Question 6: "Are People Like Me Incompatible with This Setting or Behavior?"**

In other contexts, the worry is less about stereotypes and more about whether a given behavior or activity is appropriate for "a person like me." In classic research, Lewin (1958) used a small-group discussion to encourage white, middle-class Midwestern housewives to serve underused organ meats, perceived as "ethnic foods," during the meat shortages of World War II. The facilitator led the group in discussing how serving organ meats contributed to the war effort and encouraged a collective decision to do so. At the end of the discussion, the facilitator asked for a show of hands of who would try organ meats with their families over the next few weeks, thus providing each participant a visible emblem of the changing standards of the ingroup. As compared to a persuasive lecture appeal, which advocated for the serving of such meats and provided recipes and nutrition information, the small-group discussion increased the percentage of housewives who reported serving organ meats over the next week from 3 to 32%. One reason the group discussion may have been effective is that instead of trying to persuade people to engage in behavior in violation of their perceived group identity ("People like me don't serve 'ethnic foods'"), the discussion changed the perceived standards of the ingroup (see also Miller, Brickman, & Bolen, 1975).

In other cases, interventions expand the perceived boundaries of what kinds of behavior are acceptable for the ingroup, thus allowing people to resist deleterious social influences. In classic research, Prentice and Miller (1993) showed that college students

tend to misperceive norms about drinking, seeing other students as more comfortable with drinking than they really are. This led students either to drink more or to feel they did not belong on campus. Learning that other students are less comfortable with drinking than they appear can reduce this pressure (Schroeder & Prentice, 1998). By lessening students' fear of violating the perceived norm, the intervention reduced drinking, especially among students who felt less comfortable with drinking than others and feared the negative judgments of others.

Finally, although role models are often thought of as changing representations of a setting and what kinds of people can succeed there, as described earlier (e.g., Covarrubias & Fryberg, 2015; Good et al., 2010; Lockwood, 2006; McIntyre et al., 2003), role models also convey information about the self and what kind of person one could become. They may thus be most effective when the role model's success appears relevant and attainable to the recipient (Lockwood & Kunda, 1997). Jen Welter (2015), the first woman to coach in the National Football League, recalled, "There wasn't any thought about a career path with the NFL. We'd joke that it was the No Female League. So . . . it was always strange to me when people would say, 'You're in the NFL now, you're living your dream.' Well, no, this wasn't a dream I was ever even permitted to have. I think that part of what I'm most proud of is that now other little girls can have that dream" (p. 105).

### CONCLUSION: LESSONS FROM FAILURES

This chapter has focused on success stories, on interventions that successfully fostered people's belonging in diverse contexts, often with positive effects on an array of important outcomes. The range of these interventions illustrates some of the different questions people ask about their belonging. At their heart, these questions involve the perceived fit between the self and a context. They therefore take as their primary form a perception of either the context (and its fit with the self) or the self (and its fit with the context). As we noted at the outset, psychological interventions to address belonging

primarily traffic in symbolic meanings. Most do not create a friendship *per se*, or simply place people on a team. Instead, they vary cues in the environment, or how people make sense of these cues or themselves, to help people build strong relationships and a secure sense of belonging in a setting. These perceived meanings are not ephemeral. The inferences people draw about their belonging can become lasting and embedded in the structure of people's lives through the power of recursion. Indeed, in several cases we have seen relatively brief exercises designed to bolster belonging cause improvements in relationships, performance, health, and well-being that extend years into the future.

There are failures, as well as successes, in efforts to promote belonging, and understanding these provides important opportunities for further theory development and more effective application. There are several principled reasons that belonging interventions can fail. First, an intervention may not target the right, precise psychological process; that is, it may not directly address the implicit question people in a given setting have in mind, which shapes how they make sense of events and inferences they draw about their belonging. For instance, whites in college in general, men in engineering, and women in gender-diverse engineering majors may not worry pervasively about whether "people like me" belong. Absent this belonging uncertainty, they may not benefit from Walton and Cohen's (2011) social-belonging intervention; indeed, they were not predicted to do so. Additionally, when students face the possibility of group-based disrespect or devaluation (identity threat), their concern may center on this prospect, and they may be highly responsive to cues that others view them as people with potential (e.g., Yeager, Purdie-Vaughns, et al., 2014). However, they may be less responsive to simple affiliative information that does not directly address this concern. Thus, in Gehlbach and colleagues' (2016) study described earlier, providing teachers information about preferences they shared with their students raised minority students' grades. Presumably, this helped teachers see a connection with their minority students that they did not see before. But providing minority students information about similarities they

shared with their teachers had no effect. Minority students may not worry primarily about being similar to their teachers. They may worry instead about whether they are respected. Perhaps for similar reasons, in another study, sending new college students school-related "swag" and assuring them that they are a valued member of the college community increased a sense of belonging among white students but had no effect on black students (Hausmann, Ye, Schofield, & Woods, 2009). When there is a risk of group-based devaluation, generic efforts to promote affiliation may be less effective (see also Covarrubias & Fryberg, 2015).

A focus on the specific psychological processes that contribute to people's sense of belonging also suggests that many everyday practices intended to promote belonging may backfire or be ineffective. For one of us (Walton), the first day of high school began with a literal hug of the school—the student body circled the school, held hands and hugged the school, as though to signify our community. Yet this exercise does not address the ambiguity students may feel in making sense of critical feedback they receive or how they should make sense of initial feelings of loneliness or disrespect they may encounter in entering high school (Yeager et al., 2014). For a person consumed with a specific belonging worry, it might seem like an empty charade. Rituals may be more likely to have substantive psychological effects and foster group cohesion and belongingness when they address specific processes relevant to belonging. Understanding the role of such rituals is an important direction for research (see Pia-Maria & Risto, 2016). Additionally, many of the offhand strategies people use to promote belonging may be ineffective. We have heard department administrators assure new graduate students, "I want you to belong" and teachers ask adolescents to repeat, mantra-style, the refrain "I belong, I can do it, and it matters"; such exercises may unintentionally underscore the isolation felt by students who doubt their belonging. We *want* you to belong implies that most people feel they belong, highlights that you don't right now, and doesn't necessarily offer hope that you ever will. Additionally, when university administrators brag to incoming college students about how many of them



have already started a business, written a book, or performed in the Olympics, they intend to instill a sense of school pride. But for the other 99% of students, this may only heighten imposter syndrome.

Second, even when an intervention targets the precise psychological process at hand, it must do so effectively and at the right time. For instance, if people do not engage with intervention materials actively; if the exercise seems inauthentic, stigmatizing, or coercive; or if people simply fail to connect the presented ideas to their personal experience, they may not benefit. They may also not benefit if the intervention comes too late. Early in a setting, people are often most open to new ways of making sense of their belonging. Moreover, recursive processes have not yet taken hold. Thus, in general, it may be best to bolster a sense of belonging early in transitions, helping students build relationships that can promote lasting success (Cook et al., 2012; Stephens et al., 2014; Walton & Cohen, 2011; Yeager et al., 2016).

Finally, the long-term effects of interventions to promote a sense of belonging depend on the affordances of the local context (Gibson, 1977; Walton & Wilson, 2016). Does the context allow people with a more growth-oriented mindset about belonging real opportunities to develop social relationships that facilitate this sense of belonging and improve outcomes over time? In school settings, does the context offer students learning opportunities and other resources, which a more secure sense of belonging can help them pursue? If the context lacks essential affordances, no psychological intervention will be effective.

We have outlined some of the different questions of belonging that people ask, and how these questions may be addressed. These questions and the corresponding interventions are not now fully understood, including when, for whom, and in what contexts different questions of belonging arise and may be best remedied. There are also certainly additional questions beyond those discussed here, which future research may explore. Furthermore, there are cases of failure that are not now fully understood. For instance, Dee (2015) found a positive effect of a value-affirmation intervention for black

and Latino middle school students who attended classrooms that seemed to offer students greater opportunities for academic growth. Yet in these same classrooms, there was a negative effect for girls. Additionally, in a study of college physics, Miyake and colleagues (2010) found positive effects of value affirmation on multiple indices of learning for women but, on course exam scores, a negative effect for men. Do these results have to do with how affirmations intersect with belonging? Psychological interventions are typically delivered in complex social contexts (Cohen & Sherman, 2014; Walton, 2014; Yeager & Walton, 2011). Fully understanding interventions that aim to bolster a sense of belonging requires further developing theory about both the interventions and how they change key psychological processes and social meanings and the social contexts in which the interventions are implemented and how changes in meaning play out in these contexts over time.

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