



The Science of “Wise Interventions”: Applying a Social Psychological Perspective to Address Problems and Help People Flourish

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OVERVIEW

Efforts to improve outcomes in education, health and other domains have traditionally taken one of two forms.¹ The first aims to change situations or structures—to enhance resources and opportunities available to people, or incentives to encourage positive behaviors. The second aims to change people—to improve the skills, habits, or capacities people have to pursue opportunities and take on challenges effectively. Both approaches have long histories rooted in the social and behavioral sciences.

Recent advances in social psychology offer practitioners and policymakers a third perspective on social issues, one that takes into account both the person and the situation to help people flourish.

This perspective emphasizes how people make sense of themselves and social situations.² Decades of social psychological research show that people can entertain toxic beliefs—like “Maybe I’m not good at math?” “Maybe people like me don’t belong in college?” or “Am I a bad mom?”—in particular circumstances. These worries can lead people to perceive challenges, like a poor grade or a crying baby, as confirmation

of their fears and then shape behavior to their detriment. This inference can lead people to forego opportunities to learn, to find mentors and develop friends in school, or lead to abuse.³

How do maladaptive beliefs develop? Can this be prevented? And can doing so improve people’s lives? Indeed, they can. One 1-hour exercise that addressed worries about belonging in the transition to college improved African American students’ grades and health through the end of college, halving the racial achievement gap over three years. A long-term follow-up with the same sample found that the intervention increased individuals’ life and career satisfaction 3-5 years after graduation, up to a decade after the original intervention. (See inset on page 4 for more on this intervention and how it has been tested in dozens of institutions.)

A [paper](#) in *Psychological Review* by Mindset Scholars [Gregory Walton](#) and [Timothy Wilson](#) describes this science of “wise interventions” and its implications for policy and practice across a broad range of domains. Their review of more than 325 intervention studies suggests many practical questions for decision-makers, such as:

- How can a new source of funding, new information, or a new program be crafted to increase the likelihood

1. [Dittmann & Stephens, 2017](#); [Stephens et al., 2012](#).

2. [Ross & Nisbett, 1991](#).

3. [Walton & Cohen, 2011](#); Brady, Jarvis, Cohen, & Walton, in prep; [Bugental et al., 2002](#).

that people take advantage of it?

- How can major life transitions—such as changing schools, becoming a parent, or retiring—be supported so people engage in productive behaviors when challenges arise?
- How can institutions be designed to systematically reduce the likelihood that their members will engage in harmful actions (e.g., harassment, waste, prejudice) and increase the incidence of positive behaviors, such as productive collective action?

In almost every case, subjective interpretations play a key role in how people behave. For example, does receiving critical feedback mean that I'm not cut out for a task and should give up? Or is this an opportunity to improve? Scientific insights about how people make meaning of themselves and situations—and strategies to help people reach and sustain positive conclusions—are essential tools in decision-makers' toolkits when attempting to improve individual and societal outcomes.

The idea of shaping how people see themselves and their situations to influence their behavior is not new. Public policies are inevitably interpreted by those who experience them, and those interpretations are part of any policy's observed effect. Yet we rarely take a systematic, intentional approach to account for how people interpret policies and practices as we design them; to anticipate how these interpretations can differ for different people in predictable ways; and to ensure that the interpretations people draw promote positive outcomes.

The science of wise interventions takes as its design inspiration basic principles of social psychological theory. Researchers pilot interventions in small laboratory trials in specific contexts and then expand successful efforts to larger field trials. Ultimately, widespread adoption and testing allows users to understand variations in intervention effects and adaptations for different contexts. Wise interventions are thus a way to promote positive, theory-based social change.⁴

WHAT IS THE THEORETICAL BASIS FOR WISE INTERVENTIONS?

“MEANING-MAKING” SHAPES BEHAVIOR—AND MEANINGS CAN BE PLIABLE

Almost every situation is open to interpretation, and how people make sense of things determines their behavior.⁵ Thus, to understand how people behave, practitioners and policymakers need to understand how people make sense of themselves and the situations they are in.

We all see things from a given perspective, or through a lens. These lenses can differ if people have had different experiences. For instance, some students are more exposed than others to the idea that intelligence is a fixed quality, a view that undermines their resilience when they encounter academic challenges. In specific situations, racial, gender, and other identities people have foreground negative interpretations, such as the knowledge that one's social group has historically been marginalized in an employment setting. That knowledge elicits the reasonable concern that the person might be marginalized there, too.

Sometimes meanings are so ingrained that they are difficult to change. Yet often meanings function like “working hypotheses,” especially when people are trying to figure out a new space and others in it. An important goal, then, is to construct early experiences as people enter settings that establish adaptive ways of making sense of matters. If that is accomplished, and if the environment reinforces positive meanings, people can follow a more positive trajectory for years to come. In that way, meanings are like clay—pliable initially, but eventually baked into the structure of people's lives.

WISE INTERVENTIONS CHANGE MEANINGS TO CHANGE BEHAVIOR

Wise interventions help people answer specific, pressing psychological questions adaptively. These questions arise from social contexts. For example, the question, “Am I not a ‘math person’?” comes from a pervasive Western cultural narrative that only a subset of people are “naturally” good at math. That narrative readily leads people to wonder whether they will be one of those rare individuals who is good at math—or not. Then, when people struggle in math, they risk drawing a pejorative inference—“I'm not a math person”—that leads to self-defeating behaviors, such as engaging less in math class. Those behaviors then undermine learning and set up a negative, self-reinforcing cycle of avoiding math and continuing to struggle.

Wise interventions aim to help people draw more productive answers to psychological questions. For instance, when people see struggles in school, on the job, or in ad-

4. Of course, even as wise interventions are systematically designed and evaluated to help people come to more adaptive meanings, people are constantly trying to affect how others think and behave. This can take the form of personal communication (e.g., a persuasive appeal to a colleague), large-scale marketing campaigns (e.g., to promote healthy behaviors), or public policy (e.g., a policy designed to increase saving for retirement). Wise interventions are similar in their aims but rely on decades of basic research and theory and rigorous evaluations to offer decision-makers new ways to promote positive outcomes for individuals and society.

5. As Walton & Wilson note, “some situations are more open to interpretation than others; some situations are so powerful that most people understand them the same way. Some of social psychology's most famous studies emphasize the power of these situations... But even in these studies it was not the power of the objective situation *per se* that determined behavior but how people understood the situation as it developed.”

dressing a health challenge as normal and as challenges they can overcome, rather than as portending fixed problems they can't control, they are more likely to persist and succeed in their efforts.⁶ At work, a wise intervention could reduce employees' worries about struggles taking on a new job function, keeping them engaged in productive behaviors when they hit inevitable bumps in the road.

Wise interventions can take many forms to address diverse psychological questions. For a social animal like humans, one broadly important question is: "Do people like me do this?" Conveying a social norm ("Yes, we do") can lead people to do the same. Thus one form of intervention is to add a few sentences to a public statement or letter to cue a social norm (e.g., "Nine out of ten people...pay their taxes on time. You are currently in the very small minority of people who have not paid us yet.").⁷ Wise interventions can also take the form of interactive exercises that help people think through their efforts to pursue a goal (e.g., "Why should I do this?"). Thus, encouraging students to identify a social problem that is personally important to them and to explain how their desire to make a difference motivates them to learn in school, even when the material is difficult or boring, can raise achievement, especially among struggling students.⁸

What does "wise" mean? It doesn't mean smarter or better than other approaches. These interventions are psychologically "wise"—attuned to how people make sense of themselves, others, and social situations; they understand how socio-cultural contexts prompt specific psychological questions; and they use effective techniques to lead people to adaptive answers that help them succeed in their goals and flourish.

Wise interventions aren't general positive exhortations, like "You can do this!" They are effective when they help people answer specific questions in ways that are relevant and authentic to them and their context. For example, students who face negative stereotypes about their social group in school may reasonably worry that critical feedback from a teacher on an assignment might mean that she does not believe they are as capable as other students. Then the students may not take up the opportunity to learn using the feedback. For teachers' feedback to be psychologically "wise" and therefore maximally useful to students, the teacher must convey her feedback in

a way that forestalls negative interpretations.

WISE INTERVENTIONS TRIGGER POSITIVE CYCLES OF BELIEFS AND BEHAVIORS THAT LEAD TO LASTING CHANGE

Changes in people's behaviors sparked by wise interventions can affect how other people and systems respond to them. This can set in motion recursive processes that strengthen new ways of being. Like baked clay, new interpretations can "harden" as the person interacts with her social context over time. As Walton & Wilson write,

"Recursive cycles can go from self-defeating to self-enhancing, propelling gains forward in time or even making them 'snow ball'... From this perspective, lasting change does not reside only within the person, for instance in how people make sense of the world in a permanent way or their skills or 'character.' Nor is it restricted to a given situation, which, once people exit, may lose its influence. Instead, change is represented as an ongoing, mutually reinforcing transaction between the person and the social environment."

Evidence for precisely this process comes from a study by Yeager, Purdie-Vaughn, and colleagues. Researchers randomly assigned 7th graders to receive a note on an essay their teacher had marked-up. The note either assured the student that her teacher had provided her critical feedback because she held high expectations for the student and was confident the student could meet them ("I'm giving you these comments because I have high standards and I know that you can meet them"), or the note was placebic ("I'm giving you these comments so you have feedback on your essay"). Students who received the treatment note, especially negatively-stereotyped African American students, were more likely to revise their essay for a higher grade. They also expressed more trust in their teachers over the rest of the school year, received fewer disciplinary citations the next year, and were more likely to enroll in a four-year college on time six years later. Data showed that shoring up students' trust of teachers at a critical juncture in middle school, when students' worries about negative stereotypes become acute, contributed to these gains.⁹

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6. Wilson, Damiani, & Shelton, 2002; Weinberg, Hall, & Sverdluk, 2015.

7. Hallsworth, List, Metcalfe, & Vlaev, 2014.

8. Yeager, Henderson, et al., 2014.

9. Yeager, Purdie-Vaughns et al., 2014; Yeager, Purdie-Vaughns et al., 2017.

Although not directly measured, teachers' response to students likely played an important role in this process. If a teacher sees a student put forth greater effort in class, she may in turn provide new challenges and supports to further improve the student's skills. She may even recommend the student for an advanced course the next year. These experiences may reinforce the student's belief that her teacher truly does have high expectations for her, and establish a better trajectory that could improve the student's long-term life outcomes.

LASTING GAINS REQUIRE THE PRESENCE OF RESOURCES THAT MAKE IMPROVEMENT POSSIBLE

Change in subjective meanings does not operate in a vacuum. Wise interventions will enhance outcomes only when other aspects of a system afford the necessary opportunities for improvement.

For instance, if a "high expectations and assurance" message from a teacher seems inauthentic, or if there are insufficient spots available for students to challenge themselves in more advanced courses, or if the curriculum and instruction used in those courses is poor, students are unlikely to show lasting benefits from the intervention. As Walton & Wilson write, "lasting change arises from the interplay between persons and situations," and the situation must "allow an initial change in meaning and behavior to become embedded in people's lives

in ways that could cause lasting improvement."

When and where should we expect wise interventions to spark productive recursive processes? This is an important, interdisciplinary research question. Many ongoing projects bring together psychologists and other social scientists expert in contexts and the opportunities they afford to address this question.

HOW DO WISE INTERVENTIONS ALTER MEANINGS?

WISE INTERVENTIONS ATTEND TO THE MOTIVES THAT UNDERLIE MEANING-MAKING

Changing the meanings that shape behavior requires a keen understanding of the motives that shape how people make sense of themselves and social situations. Wise interventions address these motives to redirect people's meaning-making.

Walton & Wilson identify *three underlying motives that shape how people make meaning* of themselves, others, and situations. These motives are not exhaustive, nor do they operate independently.

The need to understand. People wish to make sense of things as best they can. Like amateur scientists, they want to understand themselves, other people, and the world around them so that they can predict behavior and guide

WISE INTERVENTION CASE STUDY: ADDRESSING BELONGING CONCERNS ROOTED IN STEREOTYPES IN THE TRANSITION TO COLLEGE

The transition to college is a challenging time for many students. But this challenge is made more difficult for students who face negative intellectual stereotypes and the historical exclusion of their group from higher education. Those aspects of our culture and history can lead to a pervasive worry for students from underrepresented racial groups and first-generation college students about whether "people like me" can belong in college. From this perspective, everyday challenges, like a poor grade or feelings of loneliness, can seem to be evidence they do not belong in general in college. In response, students can disengage from vital academic and social behaviors that are important to success in college.

Sharing stories with students from older peers that show that it is normal to worry about whether you belong early on in college and that this worry typically dissipates with time can make a difference. It helps students see everyday challenges as commonplace, not evidence of a lack of belonging. And it helps students stay engaged in behaviors such as consulting with instructors and studying with peers.ⁱ Ultimately, that helps students learn more, develop stronger relationships in school, and do better.

The effects of such approaches are remarkable. The initial test of this social-belonging intervention, a 1-hour in-person exercise with a relatively small sample, found that conveying this message in the first year of college improved African American students' grades and health through the end of college, halving the racial achievement gap over three years.ⁱⁱ A long-term follow-up with the same sample found that the intervention increased African American participants' life and career satisfaction 3-5 years after graduation.ⁱⁱⁱ It did so, analyses suggest, by helping students form more significant and lasting mentor relationships that extended through and after college. Following successful [replications](#) in four other contexts including replications delivered via online modules to full institutional cohorts at three institutions,^{iv} this social-belonging intervention was scaled up and delivered, on a randomized basis, to students at 23 colleges and universities—a multi-site trial that is yielding important insights about where and for whom the intervention is most effective.

ⁱ Walton & Cohen, 2011.

ⁱⁱ Walton & Cohen, 2011.

ⁱⁱⁱ Brady, Jarvis, Cohen, & Walton, in prep.

^{iv} Walton, Logel, Peach, Spencer, & Zanna, 2015; Yeager, Walton, Brady et al., 2016.

their own actions effectively. People make inferences based on information they are exposed to, including prior experiences and stereotypes, which can result in pejorative inferences and maladaptive behaviors.

The need for self-integrity. People want to view themselves positively—to believe that they are “adequate, moral, competent, and coherent.”¹⁰ Threats to this sense of self-integrity can lead to defensiveness and poor functioning.

The need for belonging. Humans are social beings and want to feel connected to others—to “be accepted and included, to be valued members of social groups, and to contribute positively to the lives of others.”¹¹ Threats to this sense of belonging can lead to distress and dysfunction.

Wise interventions rely on four types of **research-based techniques to change meanings**. Each technique shifts people’s understanding (need to understand), sense of personal adequacy (need for self-integrity), and/or sense of connection to others (need for belonging).

In general, **less is more**—often it is more effective to offer people a new way of thinking but not force it on them. That way people can take ownership of an idea and apply it to their own life.

Technique 1: Direct labeling. One approach is to provide people a positive label that defines what might otherwise be an ambiguous aspect of themselves, a situation, or others. Researchers have tested applying labels to an aspect of the self (e.g., poor performance on a test can be due to controllable causes rather than a lack of ability), a situation (e.g., the purpose of this exam is to inform how I teach rather than a way to identify the best students), and others (e.g., these students are expected to “bloom”; most students want to do well academically). Notably, direct labeling can backfire if it seems false or if it implies a personal quality is fixed rather than malleable.

Technique 2: Prompting new meanings. Another approach is to provide the basis for a new way of thinking about the self, a situation, or others, but not offer or impose the meaning itself. This can include prompting people with questions (e.g., how might this schoolwork be useful to you or a friend or relative?), altering situations (e.g., putting people in teams working toward a shared goal), or providing new information (e.g., about how many of a person’s friends or neighbors have voted).

Technique 3: Increasing commitment through action. Wise interventions can create situations that encourage people to act in accordance with a new idea, thereby

reinforcing that idea. A key example is called “saying-is-believing.” People are given new information in a way that the underlying idea is intuitive (e.g., stories from older students or other trusted sources) and then asked to explain that idea to help other people (e.g., tell your own story to assist the next generation of students). This approach maximizes learning through active reflection, helps people take ownership of and personalize an idea, and honors people as benefactors rather than beneficiaries. Another example is “pre-commitment,” or encouraging people to freely say they will do something before they have the opportunity to do so.

Technique 4: Active reflection exercises. Wise interventions can involve structured exercises, often writing exercises, that help people understand their personal experiences from a new perspective. For example, a person might be asked to imagine a future self, potential obstacles to becoming that future self, and strategies for overcoming these obstacles; they might reflect on negative experiences, such as a distressing experience, in ways that help them find positive meaning or draw closure; or that remind them of core values, and thus reduce threat and defensiveness.

Wise interventions target one or more core motivations—the need to understand, to have self-integrity, and to belong—using one of these techniques. For example, wise interventions aimed at capitalizing on people’s need to understand expose people to information, create new situations, or offer structured reflections that suggest to participants “a new view of themselves, others, or their circumstances.”¹²

Table 1 at the end of the brief provides some additional examples of wise interventions developed by researchers working in domains ranging from education and healthcare to civic participation and employment (a searchable database of wise interventions is available at www.wiseinterventions.org). Most of the interventions reviewed by Walton & Wilson have not yet been designed for widespread adoption but they illustrate the potential and applicability of wise interventions to a variety of social priorities.

CONNECTING WISE INTERVENTIONS TO OTHER EFFORTS TO IMPROVE OUTCOMES

INFUSING PERSON- AND SITUATION-CENTRIC REFORMS WITH PSYCHOLOGICAL WISDOM

Many social policies and programs aim to build people’s capacity to navigate challenges more successfully or change situations to promote better outcomes. Walton & Wilson argue

10. Walton & Wilson, 2018.

10. Walton & Wilson, 2018.

11. Walton & Wilson, 2018.

that both approaches may be strengthened by considering people’s subjective meaning-making. If a reform is not designed with an eye to people’s interpretations, it may not have its intended effect: a helpful resource could go unused or an incentive could backfire. Alternatively, the reform may work but for different reasons than assumed, which could reduce its effectiveness when the reform is extended to new contexts.

How resources and opportunities are perceived. Whether resources and opportunities are used depends on how people interpret them. A key educational resource for students is critical feedback on their work. We all need feedback to push beyond our current skill level. But if students do not trust their teachers to evaluate their work fairly, they are unlikely to accept that feedback and learn from it. The wise feedback study described above illustrates how psychologically-wise pedagogy can alter how students perceive, and thus use, this resource.

Other examples include changing how people perceive health-risk information, public benefits, and being placed on academic probation. In the latter case, college administrators modified a letter notifying students that they had been placed on probation to show clearly that the college saw recipients as facing normal challenges (e.g., health or financial pressures), to acknowledge that many students encounter these challenges, and to represent probation as a process designed to help students address the problems they face. This modified communication reduced students’ feelings of shame and stigma and increased the likelihood that they took advantage of academic supports available on campus. In one sample, the revised letter raised students’ likelihood of returning to good academic standing from 26% to 43%.¹³ Researchers have also been successful in helping people see opportunities for contact across social groups (e.g., different religions or racial and ethnic groups) as a chance to grow and learn, rather than as meaningless or evaluative—a change in perception that has improved intergroup outcomes.¹⁴

How incentives designed to shape behavior are interpreted. People’s interpretation of incentives also shapes their response to them. “Zero-tolerance” school discipline policies and other punitive approaches to misbehavior are designed to incentivize students to act in accordance with school policies. However, such approaches can engender feelings of disrespect, leading students to express disrespect in response and setting in motion a downward cycle.¹⁵ A wise intervention that encouraged teachers to understand and value students’ perspective on their behavior, and to prioritize sustaining

positive relationships with students when they misbehave, led middle school teachers to discipline students less punitively, shoring up trust with students, and, in a field trial, [cut student suspension rates by half](#) over a school year.

Even when incentives work as intended, they may do so in part by changing meanings—not just the push provided by the incentive. One study found that government cash transfers to poor, rural families in Morocco contingent on school attendance worked better than no cash transfer, but even more effective were cash transfers labeled as “education supports” not contingent on school attendance. The money did not function as an incentive. Instead, the government’s endorsement of education through the funds and the label led parents to perceive education as more important and increased confidence in their local schools.¹⁶ Understanding the meaning conveyed to people through incentives can maximize their benefits and minimize unintended consequences.

How defaults convey norms that affect meaning-making. “Nudges” are small adjustments to the structure of situations that make certain behaviors more or less likely in that context.¹⁷ These can include a timely reminder or making something a default rather than an “opt-in,” among other modifications. Yet nudges may be most powerful when they signal an adaptive meaning to people. For instance, when organ donation programs are switched from opt-in to opt-out, they convey the norm that organ donation is a “common courtesy” rather than a “major sacrifice.” That change in how people perceive the situation is a major reason opt-out ap-

A MISCONCEPTION ABOUT WISE INTERVENTIONS

A misconception of wise interventions is that they presume that the meanings people infer are all “in the head.” Yet the psychological questions and concerns people experience are reasonable responses to the contexts they face, including the reality of negative stereotypes and prejudiced structures in society. Structural reforms can be powerful means of conveying psychological ideas (e.g., changes to teachers’ practice that convey “wise feedback”). But traditional structural reforms, such as first-year seminar programs or living-learning communities to support opportunities for belonging early in college, are often not designed to directly address precise psychological questions. As institutions modify practices, policies, and norms to improve outcomes, it is important for institutional actors to consider the psychological questions that contexts raise for people, how these questions can differ for different people, and how they can construct experiences that help all people to adaptive answers.

13. Brady et al., in prep.

14. Aronson & Osherow, 1980; Brannon & Walton, 2013; Mallett & Wilson, 2010; Rokeach, 1971; Page-Gould et al., 2008; see also Carr, Dweck, & Pauker, 2012.

15. Okonofua, Walton et al., 2016; Skiba & Losen, 2015.

16. Benhassine et al., 2015.

17. Thaler & Sunstein, 2008.

18. Davidai, Gilovich, & Ross, 2012.

proaches lead to greater rates of organ donation.¹⁸

COMBINING SITUATION-CENTRIC, PERSON-CENTRIC, AND PSYCHOLOGICALLY-WISE APPROACHES

It's valuable to consider how people make meaning of situation-centric and person-centric reforms. Walton & Wilson suggest that there is also merit to thinking about comprehensive reforms from all three perspectives:

“For people to flourish we need to create situations that support success (situation-centric reforms); to build critical skills and associations (person-centric reforms); and to address people’s interpretations of themselves and social situations (psychologically wise interventions).”

In the transition to college, for example, a comprehensive approach could include efforts to reduce structural barriers, particularly for students who have less familiarity with and fewer resources for college, such as: simplifying the forms required to matriculate; issuing timely reminders of key deadlines; increasing the financial aid available; and providing students with information on schools they are qualified to attend prior to application to reduce the likelihood of “under-matching,” which can lead to worse college outcomes.

These efforts could be complemented by person-centric reforms, such as programs that increase students’ skill in navigating complex college bureaucracies or reforms in secondary schools to improve academic preparation and build critical noncognitive skills.

They could also include psychologically wise modifications to institutional practices to reduce students’ feelings of inadequacy and nonbelonging in college, such as first-year programming to establish a campus culture in which all students know that worries about belonging are normal in the transition to college and typically improve with time (e.g., sharing of stories from older students; dorm or class-based discussion groups about belonging in the college transition; through faculty and administrator welcome addresses), or adjustments to processes like academic probation to reduce shame and stigma.¹⁹ It may also include efforts to represent financial aid as available and normal, not a sign of difference, and thus the institution as one that strives to serve students of all socioeconomic backgrounds.²⁰ And it could include efforts to mitigate bureaucratic hassles, which while frustrating for all students can signal to first-generation college students in particular that they don’t have the “know-how” to do college (“If I can’t even figure out how to register for classes, how am I going to pass math class?”).²¹

For practitioners and policymakers considering combining approach-

es (or multiple wise approaches), it is critical to consider the explicit and implicit messages conveyed by different approaches and ensure they are coherent. For example, if students hear contrary messages from faculty in large introductory classes threatening to “weed-out” poor performers, or if they experience racist incidents on campus, the benefits of efforts to promote belonging may be reduced.

CONCLUSION

Wise interventions can seem “magical” because they can be brief in duration yet have practically meaningful, long-term benefits.²² Indeed, by design, much of their effects happen invisibly behind the scenes: in repeated, daily interactions between a person and the social context in which they live. Yet this invisibility renders them no less powerful and no less relevant than large-scale changes to practice and policy.

For decades, policies to improve social outcomes have focused either on changing situations, by expanding opportunities and resources, or on enhancing individuals’ skills. Relatively neglected has been the systematic ways in which people make meaning of themselves and the situations they are in. Wise interventions show the promise of crafting programs and policies sensitive to these meanings, especially to forestall people from reaching negative conclusions about the self, important other people in their lives, and social circumstances, and thus enabling people to pursue opportunities for improvement. There is much to be learned, including about how to scale wise interventions effectively, for whom and under what conditions these approaches work, and how to modify wise interventions to meet the needs of different contexts. But hundreds of studies show that helping people create more productive narratives can improve the trajectory of their lives and pay significant dividends for society.

19. Brady et al., in prep.

20. Browman & Destin, 2016.

21. Reeves et al. in prep.

22. Yeager & Walton, 2011.

Table 1. Additional examples of wise interventions beyond those described in this brief (for further examples, visit www.wiseinterventions.org)

MOTIVE: NEED TO UNDERSTAND

Object of Judgment	Specific Psychological Question	Reference	Change Strategies	Study Summary (all studies are randomized controlled trials)
Changing beliefs about other people’s potential to learn and grow	Which students are likely to grow most? (teacher expectations)	Rosenthal & Jacobson, 1968 and Raudenbush, 1984	Direct labeling, of other people	Researchers told teachers that certain (randomly selected) children in their class were likely to “bloom,” which led the teachers to treat those students differently and improved their academic performance. The effects were strongest when teachers were told this message early in the school year when their impressions of students were still forming.
Changing beliefs about social groups and group conflict	What connections do I have / could I have with other groups?	Broockman & Kalla, 2016	Prompting, with leading questions	Having a 10-minute conversation with a door-to-door canvasser about transgender rights, including reflecting on their own experiences being judged negatively for being different and how this might offer a window into the experiences of transgender people, reduced transphobia over 3 months and increased support for a nondiscrimination law even after exposure to counterarguments. <i>Note: This was a subsequent independent replication of a retracted study by other scientists.</i>
Changing beliefs in and about interpersonal conflicts and interactions	Why is my baby fussing?	Bugental et al., 2002	Prompting, with leading questions	Over an average of 17 home visits during the baby’s first year, paraprofessionals asked mothers at risk of committing child abuse to identify challenges in parenting (e.g., “My baby won’t stop crying”) and kept asking why they were having this challenge (“Could it be something else?”) until the mother gave a reason that did not blame themselves or their baby (e.g., “Maybe the baby needs a new bottle”). They then problem-solved with the mother to address this problem. As compared to both visits without this component, and a no-visit condition, this reduced the rate of child abuse during the first year from 23% to 4%, with the greatest effect among high-risk infants (58% vs. 10%). It also improved children’s health and reduced mothers’ depression at the child’s first birthday.
Changing beliefs about attainability of a future goal	Is college accessible to me?	Destin, 2017	Prompting, with information	Representing college as accessible by providing information about need-based financial aid to socioeconomically diverse 7 th -grade students led students from low-asset households to be more likely to plan to do their homework that night. There was no effect for students from high-asset households.

MOTIVE: NEED FOR SELF-INTEGRITY

Object of Judgment	Specific Psychological Question (Threat Addressed)	Reference	Change Strategies	Study Summary (all studies are randomized controlled trials)
Remedying threats to self-integrity that undermine functioning	Will I be seen or treated negatively because of my group identity?	Cohen et al., 2006	Active reflection, values-affirmation	<p>Students in a middle-class suburban middle school identified personally important values from a short list and then wrote about why these were important to them in several 15-20-minute in-class writing exercises beginning at the outset of 7th-grade. The exercise raised African American students' course grades that semester, reducing the racial achievement gap by 40%. The intervention also reduced the percentage of African American students who received a D or below from 20% to 9%, increased GPA over the next two years, especially for initially low-performing students (Cohen et al., 2009), and bolstered students' sense of belonging in school (Cook et al., 2012). Six years after the original intervention, African American students who had received the affirmation were more likely to enroll in college (92% versus 78%; Goyer, Garcia et al., 2017).</p> <p><i>Note: Although value affirmation is one of the most heavily researched wise interventions, it is also one of the most complex. In some cases, it has failed to raise achievement among students who face identity threat. Analyses suggest that it is more likely to help when threat is greater, such as when achievement gaps are large or when a target group is underrepresented. There are also strong theoretical and empirical reasons to think that affirmation will backfire in certain situations.</i></p>
Linking desired meanings for self-integrity to motivate positive change	Did I say I would do it?	Gringart et al., 2008	Increasing commitment through action, pre-commitment	<p>Australian hiring managers received letters emphasizing (1) common stereotypes about older workers and empirically based counter evidence and (2) information about hiring discrimination against older workers, how this violates national norms, and a booklet with names of hiring managers who oppose age discrimination, and an invitation to add their own name to this list to be distributed to the broader community. As compared to hiring managers who received only (1) or (2) or neither, those who received both expressed more positive views of older workers, a greater preference for hiring older workers, and being more likely to hire older workers.</p>

MOTIVE: NEED TO BELONG

Object of Judgment	Specific Psychological Question	Reference	Change Strategies	Study Summary (all studies are randomized controlled trials)
Facilitating beliefs that sustain belonging in the face of challenges	Can people “like me” come to belong?	Dennehy & Dasgupta, 2017	Prompting, by altering situations	Incoming female undergraduate engineering students were randomized to a male peer mentor, a female peer mentor, or no mentor. Women who had a female mentor, as compared to both comparison conditions, showed sustained rather than declining levels of belonging and self-efficacy in engineering and post-college engineering aspirations. At the end of this year, they had higher rates of retention in engineering majors (100% vs. 82% with male mentors and 89% without mentors). A year after the mentoring program had ended, women who had had a female mentor showed sustained levels of belonging and post-college engineering aspirations, as compared to continuing declines for women who had had male mentors or no mentor. Women’s feelings of belonging and self-efficacy predicted retention and career aspirations.
Facilitating beliefs that sustain belonging in the face of challenges	Can people “like me” come to belong?	Yeager, Walton et al., 2016	Increasing commitment through action, saying-is-believing	A cultural-fit intervention was delivered online in the summer before students entered a selective private university. The treatment condition featured stories from older students emphasizing that college is a place where people can maintain an interdependent self-concept: maintain interdependent ties with people back home and join new interdependent communities on campus. Students read the stories and then wrote an essay about how they anticipated their own experience would unfold. As compared to the control condition, the exercise increased the first-year GPAs of negatively stereotyped ethnic-minority and first-generation White college students, reducing the achievement gap by 31%, and reduced the percentage of these students in the bottom quarter of the class from 50% to 37%. At the end of the first year, these students also reported making more close friends, getting more involved in extracurricular activities, seeking out academic support services more, and having developed more strong mentor relationships.
Linking social connections and feelings of belonging to goals	Am I working with others to accomplish personal or collective goals?	Wing & Jeffrey, 1999	Prompting, by altering situations	People trying to lose weight were randomized to a standard behavioral treatment (weekly group meetings over 16 weeks) or this treatment with social support: 4-person teams in which each person supported the others’ efforts to lose weight. All participants lost weight over the 4-month treatment with no difference by condition. However, those who received the social support component were more likely to maintain their weight loss through 10 months than those who did not.
Changing beliefs about social norms to motivate positive behaviors	What is typical or valued in my social community? (norms)	Bond et al., 2012	Prompting, with information	Incorporating references to friends who have voted on an election day get-out-the-vote message on a social-media website (Facebook) seen by an estimated 61 million people raised turnout in U.S. Congressional elections by an estimated 340,000.

Source: [Walton & Wilson, 2018 \(supplemental tables\)](#).