

Social Stigma and Health: An Identity-Based Motivation Perspective

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Abstract

American culture highlights the power of individuals to steer their own course and be masters of their own destiny. In American cultural context, low place in social hierarchy due to low socio-economic status is taken to imply some deficiency in the persons who occupy this place --lack of prestige, power, status, or success is negatively marked, stigmatizing. The association between low place and stigma seems bidirectional, low place is stigmatizing and membership in a negatively marked or stigmatized group – e.g., social class, racial-ethnic, or sexual orientation, implies low place in social hierarchy. Low place in social hierarchy matters; it limits individuals' choice and experienced control. In this chapter, we use identity-based motivation theory to examine the health consequences of the interplay between the stigmatizing and choice-limiting aspects of place in social hierarchy. We use health behavior and health outcomes research to articulate the three components of identity-based motivation (dynamic construction of identity, action-readiness, and procedural-readiness), concluding with implications for intervention. Dynamic construction of identity refers to the importance of context for which identities come to mind and what these identities imply. Reminders of low place in social hierarchy can bring to mind social identities – e.g., social class, racial-ethnic, or sexual orientation, which can be experienced as including healthy or unhealthy preferences, habits, and behaviors depending on contextual cues. Action- and procedural-readiness highlight the motivational power of accessible identities. As documented in the studies we summarize, accessible identities can elicit health-promoting or health-undermining habits and interpretations of experienced difficulty.

250 words

Why might it be that people engage in unhealthy behaviors, ending up with less than optimal health outcomes? One possibility is that their repeated behaviors over time – their habits, and the outcomes related to these habits, reveal their preferences. That is, people’s unhealthy habits are due to their preferences for tempting vices over healthy virtues, which over time, result in worse health outcomes. If that is the case, then policy should take these preferences into account. The alternative, as we outline in this chapter, is that what appear to be preferences are actually a function of something else -- the meaning that low place in social hierarchy and the stigma that low place in social hierarchy entails, for identity-based motivation. We operationalize identity-based motivation as the motivation to act and interpret experience in ways that fit one’s important identities. Identities are the traits and characteristics, relationships, roles, and group memberships that define who a person is or might become, the combination of which defines their sense of self (Oyserman, Elmore, & Smith, 2012). An identity-based explanation is important for two reasons: It provides a different explanation than an individual preference model for the association between low place in social hierarchy and poor health habits and health outcomes. Second, this new explanation articulates novel predictions for what effective intervention and policy would look like.

As summarized in the next in section and depicted in Figure 1, healthy habits and healthy outcomes are unequally distributed in social hierarchies. Lower place in social hierarchy is both stigmatized and associated with worse habits and outcomes. If outcomes were simply due to preferences, there is no clear reason why this would be the case. As summarized in the second section (Identity-based Motivation Theory), and depicted in Figure 2, one important way in which place in social hierarchy matters is through the stigma attached to low place in hierarchy and the effect of stigma on the three components of identity based motivation. That is, as Figure

2 illustrates, stigma and associated negative stereotypes influence health outcomes and behaviors by influencing which identities come to mind, what these identities imply for action and for interpretation of experienced ease and difficulty pursuing identities and taking action for health. As will be outlined in the final subsections of this chapter, identity-based motivation highlights both the motivation increasing potential of interpreting difficulty as importance and the motivation decreasing potential of interpreting difficulty as impossibility. However, as depicted generally in Figure 3 and then detailed specifically in Figure 4, a focus on stigma and stereotyping highlights only one part of this process. That is, interventions that are aimed at reducing the negative health implications of stigma and associated negative stereotypes focus on reducing the motivation-decreasing potential of interpreting experienced difficulty as implying the impossibility of success for people like oneself. However, interventions can also focus on ramping up the motivation-increasing potential of interpreting experienced difficulty as implying the importance of success for people like oneself.

For ease in moving across figures, the links from one figure to the next are marked using boldface borders and connecting lines. Thus one part of social context, Stigma, is boldface marked in Figure 1. This piece of Figure 1 is detailed in Figure 2, which shows the effect of Stigma on one component of identity-based motivation, Interpretation of Experienced Difficulty. The link between this component of identity-based motivation and health habits and outcomes is boldface marked in Figure 2. This piece of Figure 2 is detailed in Figure 3, which shows the path from stigma to interpretation of difficulty as impossibility. The link between interpretation of experienced difficulty as impossibility and health habits and outcomes is boldface marked in Figure 3. This piece of Figure 3 is detailed in Figure 4. Figure 4 highlights how interventions to reduce the effect of stigma and stereotyping function, showing them as focused on reducing the

likelihood that experienced difficulties will be interpreted as implying impossibility of success in health domains.

Place in Social Hierarchy is Associated with Health Habits and Health Outcomes

In this section we provide evidence that markers of place in social hierarchy matter for health behavior and health outcomes. Markers of high place (high education, high income, and membership in majority groups) are generally associated with more health promoting and fewer health undermining habits and better health outcomes. In contrast, markers of low place (low education, low income and membership in low status minority groups, whether defined by racial-ethnic, sexual orientation, or other parameters) are generally associated with fewer health promoting and more health undermining habits. That is, knowing a person's or a group's place in social hierarchy predicts and their health habits and health outcomes at a better than chance level (for reviews, Oyserman, Smith, & Elmore, 2014; Braveman, Egerter, & Williams, 2011; Mackenbach et al., 2015; Phelan & Link, 2015). For example, unhealthy behaviors including drug use and risky sexual behaviors (Cochran, Ackerman, Mays, & Ross, 2004) are more likely and healthy behaviors, including dieting and exercise, are less likely among those low in the social hierarchy (e.g., among those with low socio-economic status, Pampel, Krueger, & Denney, 2010; among racial and ethnic minorities, August & Sorkin, 2010). The same is the case for health outcomes: Chronic disease is higher and life expectancy lower for those low on the social hierarchy (e.g., low socio-economic status, Banks, Marmot, Oldfield, & Smith, 2006; Lynch, Smith, Kaplan, & House, 2000; racial and ethnic minorities, Cantu, Hayward, Hummer, & Chiu, 2013; Kington & Smith, 1997; sexual minorities and HIV (Human Immunodeficiency Virus, CDC, 2005; Prejean et al., 2011).

On the one hand, these different outcomes may be due to different habits, which might be said to simply reveal different preferences. If that is the case, then policy and intervention should take these into account. However, to the extent that these different habits are rooted in differences in the contexts people live in and these contexts are not freely chosen but consigned by place in social hierarchy, then differences in habits and outcomes can be considered unjust disparities rather than simply differences. If that is the case, policy and intervention should take into account that habits and hence outcomes are not good indicators of preference and intervene to reduce stigma and stereotyping and increase life choices and experienced control.

People's social networks tend to be segregated along markers of place in social hierarchy (e.g., socio-economic status, minority status). That is, people in lower strata of the social hierarchy are parts of social networks including others like them. Hence one way to distinguish whether differences in health habits and outcomes are due to unjust disparities is to see if they are spread in social networks. Indeed, social networks are associated with health habits and outcomes. On the one hand low vs. high place in social hierarchy is associated with different exposure to health undermining and health promoting environmental characteristics; on the other hand, social processes also matter --other's behavior influences one's own sense of risk (Cohen-Cole & Fletcher, 2008a,b; Cunningham, Vaquera, Maturo, & Narayan, 2012; Iceland & Wilkes, 2006; Tamburlini & Cattaneo, 2007). If your friends are overweight, how bad can it be? People in a network share common environments and social networks facilitate spread of shared meaning-making (Christakis & Fowler, 2007, 2008; Cohen-Cole & Fletcher, 2008a; Cruwys, Bevelander, & Hermans, 2015). For example, each friend in a group of friends might gain weight when their shared social environment changes (e.g., a fast food restaurant opens on the way to school or budget cuts eliminate gym class) and the friendship itself might matter (e.g., Cohen-

Cole, & Fletcher, 2008b). That is, friends may become more alike in their preferences for fast food or exercise over time, or over time, one's friends' behaviors feel familiar and hence easier for one to incorporate into one's own repertoire. As one's friends become obese (as assessed by Body Mass Index, BMI), one's risk of becoming obese also increases, as one's friends become underweight, one's risk also increases (Loh & Li, 2013).

Moreover, low place in social hierarchy can itself be stigmatizing. American culture, with its emphasis on individual choice and responsibility may be one reason that place in social hierarchy matters for health habits and health; if place is considered to be due to personal choice, then low place is itself negatively marked or stigmatized as demonstrating failure (e.g., Keefer, Goode, & Van Berkel, 2016; Swidler, 1986). If having markers of low place (e.g., a low income, being a minority) are perceived as implying negative qualities or as being a sign of inferiority, then they fit the definition of a stigma, which is defined as a negatively marked actual or imagined attribute (Goffman, 1963; Link & Phelan, 2001; Major & O'Brien, 2005). People who share a stigmatized or marked identity share a social stereotype, a shared description of the character and characteristics of their social group (Snyder, Tanke, & Berscheid, 1977; Steele, 2010). Putting stigma and stereotype together, people's attributes (e.g., their social class, facial features, body type, skin color, national origin, or sexual orientation) can be understood as signals of inferiority. The particular way in which that socially derived inferiority unfolds in a content domain can be considered a stereotype. Because there is high agreement on the content of stereotypes within societies, stereotypes are available for use in perception and judgment, whether or not an individual agrees with or endorses them (Steele, 2010). Stigmas are related to stereotypes because stereotypes are the instantiation of what the negative difference entails.

Consider a physical attribute -- body mass (weight), and two social attributes --social class and race-ethnicity. Each attribute can be stigmatized¹. From a health perspective, low place in social hierarchy is perceived to be a marker of failure to take care of oneself -- one is poor for a reason. For example, being labeled overweight, working class, or African American describes objective qualities (e.g. the person has a high BMI, likely has little money, and likely has ancestors from Africa). But since these are attributes that are stigmatized, they also cue stereotypes implying that the person has a number of flaws. For example, the stereotypes of being overweight, having HIV, being working class, or African American each include lack of willpower, laziness, impulsivity, and being present-focused rather than future-focused (e.g., Crawford, 1994; Townend, 2009). These stereotypes are associated with the labels “overweight,” “working class,” or “African American” and hence are applied to anyone who is a member of these groups regardless of whether or not they accurately describe a particular individual (for a review, see Spencer, Logel, & Davies, 2016).

Place in social hierarchy and the stigmas and stereotypes that place in social hierarchy can activate also impact quality of care both by influencing the care people are offered and their willingness to seek care (Burgess, Warren, Phelan, Dovidio, & Van Ryn, 2010). Low-income and racial-ethnic and sexual minority individuals are more likely to be provided simple, as opposed to maximally effective, treatment regimens and, in some cases, are less likely to be offered health screenings (e.g. Alegria, Pescosolido, Williams, & Canino, 2011; Senreich, 2009). People who are poor or minority group members feel stereotyped by health care providers as

¹ One of our editors (B. Major) notes that some stigmas, such as facial disfigurement, have few if any stereotypes associated with them. We are not sure if that is the case – presumably a facial disfigurement is stigmatizing because it is stereotyped as having some negative cause – carelessness, lack of good genes, that undermines perceived trustworthiness or competence of the disfigured. At the same time, our focus in this chapter is not on all possible stigmas, just those relevant to place in social hierarchy.

lazy, impulsive or weak willed and unintelligent and hence unwilling or unable to make healthy choices and perhaps for these reasons less likely to follow-up or adhere to medical plans (Alegria et al., 2011; Bird & Bogart, 2001; Penner et al., 2009; Penner, Phelan, Earnshaw, Albrecht & Dovidio, this volume; Williams, John, Oyserman, Sonnega, Mohammed, & Jackson, 2012). Health conditions themselves can be stigmatizing if they are considered marks of negatively stereotyped group membership. HIV is an example. Behaviors that increase risk of having HIV - - sharing needles, multiple sexual partners, unprotected sex, and the identities these behaviors imply -- substance user, being a sex worker, being bisexual or gay, are stigmatizing (Park, Anderson, Christensen, Miller, Appleby, & Read, 2014, see Chaudoir & Fisher, this volume). Admitting HIV status implies that one is a member of these stereotyped groups and engages in stigmatized behavior. Indeed, HIV stigma is a predictor of risky sexual behavior, a barrier to seeking care for HIV and to adhering to HIV treatment (Rao, Kekwaletswe, Hosek, Martinez, & Rodriguez, 2007; Timberlake & Sigurdson, 2007; Ware, Wyatt, & Tugenberg, 2006).

In sum, our read of the evidence suggests that health disparities --the association between low place in social hierarchy and differences in health habits and health outcomes -- are a product of the stigmatizing consequences of place in social hierarchy on people's meaning-making and habits. If so, then policy and intervention should take into account the psychological processes triggered by place in social hierarchy. In the next section we do just that, using identity-based motivation theory, a social psychological theory of motivation and goal pursuit to do so. We outline what the theory is, summarize evidence using examples from the domains of health habits and outcomes where possible. We articulate how stigma and stereotyping influence identity-based motivation processes and what can be done about it using examples from health-focused intervention targeting stigma and stereotyping.

Identity-based Motivation Theory

Identity-based motivation theory is a social psychology theory of motivation and goal pursuit that explains when and in which situations people's identities motivate them to take action towards their goals (Oyserman, 2007; 2009a). Identity-based motivation theory starts with the assumption that people prefer to act and make sense of situations in identity-congruent ways – ways consistent with what people 'like me' do (termed "action readiness" and "procedural readiness"). However, even though identities feel stable, the link between identity and behavior is often opaque. That is because which identities come to mind, what they imply for behavior, and hence how experienced difficulties along the way are interpreted are a function of the situation one is currently in (termed "dynamic construction"; Oyserman, 2009a, 2009b). Each of these elements is associated so that cuing one element cues the others, as concretized next.

Consider gender. A person may or may not chronically consider being a man or woman as an identity, but this identity may be triggered in some contexts. Consider maleness. Once activated, what does maleness imply? On the one hand there is not a fixed way to "be a man," no one correct way in which being a man links to healthy or health risky behavior, and no one correct way in which to interpret experienced difficulty while engaging in "manly" things. In some settings "being a man" means having that extra beer; in other settings it means not drinking at all. On the other hand, once an identity (e.g., 'being a man') comes to mind, it carries with it a propensity to act and make sense of experiences in identity congruent – "manly" ways (Oyserman, Bybee, & Terry, 2006; Oyserman, 2007). Depending on what being a man means in a particular context, the linked behavior might be to drink or abstain. If, in context, it is the manly thing to drink, then experienced difficulty abstaining or refusing an offer of another round implies that one should go ahead. If it is the manly thing to abstain, then the same experienced

difficulty just highlights the righteousness of one's choice. Experienced difficulty while acting in the identity congruent way will imply that doing so is important. In contrast, experienced difficulty while acting in the identity incongruent way will imply that success is impossible.

What being male implies is thus context dependent, but knowing what construal of maleness is likely to be activated in context allows for predictions of how maleness is understood, which behaviors are likely to feel identity-congruent, and how experienced difficulty will likely be interpreted. Each of these elements – identity content, associated behaviors and interpretation of experienced difficulty can be considered separate but linked associative knowledge networks such that activating one network activates the others via spreading activation. Hence, while in the above example we started with identity content, an identity-based motivation process could start with any of the three elements. If a particular interpretation of experienced difficulty comes to mind, it should influence which behaviors are accessible and whether something feels identity congruent. If a particular behavior comes to mind it should influence how experienced difficulty is interpreted and how identity is understood in the moment. Each of these predictions facilitates intervention and policy that channel dynamic construction, action-readiness and procedural-readiness toward health bolstering and away from health undermining habits and outcomes.

Dynamic Construction

Identity-based motivation theory predicts that people will be more likely to engage in healthy habits if, when they think about engaging in these habits, doing so seems to fit with who they 'are.' The notion of dynamic construction is congruent with theories about stereotyping and stigma in the sense that social contexts can include stigmatizing or nonstigmatizing cues, thereby influencing which identities come to mind and what those identities mean in the moment

(Albarracin, Durantini, & Earl, 2006; Earl, Nisson, & Albarracin, 2015; Lewis & Oyserman, 2016). Not only are identities created, they are not stable over time, in contrast to common beliefs (Quoidbach, Gilbert, & Wilson, 2013). Instead, how people understand who they are and what that means for what they should do and how they should interpret experienced difficulty trying to do it changes dramatically from context to context (Oyserman, 2015a, 2015b; Oyserman et al., 2012). This is what identity-based motivation theory describes as the dynamic construction of identity (Oyserman, 2015a, 2015b).

If identity content and what it implies for action and for interpretation of experienced difficulty are not fixed, but dynamically constructed then interventions cannot assume that the problem of health disparities is that people fail to act on a fixed goal (see Webb & Sheeran, 2006; Wieber, Thürmer, & Gollwitzer, 2015) but rather that the goal itself changes with what an accessible identity seems to mean. The idea of dynamic construction may at first seem abstract and hard to grasp. The following experiment demonstrates what is meant concretely, again using gender, but in the domain of school. Elmore and Oyserman (2012) gave middle school students a graph to interpret. Unbeknownst to the students, there were four different graphs, and the one each student received was determined by lottery. The graphs showed accurate Census information about their state, either about earnings or about high school graduation rates. For half of students, graphs broke down information by gender. Thus, boys and girls either saw that men succeed (they earn more money) or that women succeed (they graduate high school more), or got information about earnings or graduation without a gender comparison. The motivational consequence of seeing the graph depended on whether or not the graph implied that people like 'me' succeed. Boys, who typically underperform scholastically compared to girls, continued to perform worse than girls in all conditions except the 'men succeed' condition. Boys in the men

succeed condition generated more academic and career-oriented possible identities and were more engaged in school than boys in the other conditions (Elmore & Oyserman, 2012).

Returning to the notion of dynamic construction, that that graph had an effect on boys' possible identities and their school engagement means that what being a boy entails is constructed on the fly to fit available cues. Returning to the domain of health, this implies that whether important social identities – gender, race-ethnicity, social class, feel congruent or incongruent with health, academic success, or other positive outcomes is much more malleable than often assumed.

Even though we did not find studies that directly manipulated identities and showed effects on healthy habits, we found some work touching on the implications of dynamic construction of identity for healthy habits. A first set of experiments showed that an ostensibly positive feature of national identity, the perceived link between being French and tasty food, can undermine healthy habits (Gomez & Torrelli, 2015). In particular, Gomez and Torrelli showed that French participants thought that eating 'tasty' food was identity-congruent, a French thing to do. Americans participants also thought that eating 'tasty' food was identity-congruent, an American thing to do. However, healthy and tasty were experienced as more incompatible for French participants. As a consequence, Gomez and Torrelli showed that bringing French identity to mind had negative consequences for healthy habits among French participants. In three experiments, French participants were asked to read nutrition labels and rate how difficult it was to understand them, or to rate how tasty a food was, or to rate how nutritional the food was. In each experiment, French identity was made salient to half of participants before they engaged in these tasks. Compared to participants for whom French identity was not salient, participants in the French identity salient group rated nutrition labels as more difficult to understand, rated tasty

food as less nutritious and nutritious foods as less tasty. For example, if the health aspects of a French lentil dish were brought to mind, participants said it did not taste good.

A second set of experiments showed that whether healthy choices are experienced as identity-congruent or not depends in part on contextual cues highlighting upward or downward comparisons to groups experienced as healthier or less healthy (Tarrant & Butler, 2011). Tarrant and Butler (2011) showed that whether British students took a 'British' identity as congruent with healthy choices depended on how 'British' was situated in the moment. In two experiments British students were either assigned to think about their 'British' identity alone, to think about a different identity ('student'), or to think about their British identity in comparison to another identity that pilot studies revealed they considered to be healthier (Japanese) or less healthy (American) than British. Students guided to consider their British identities alone or compared to Americans were more likely to set healthy goals than those guided to think about their British identities compared to Japanese, or students only guided to consider their 'student' identity. The implication of these studies is that situational affordances and constraints shift people's understanding of whether or not healthy choices are congruent with their identity.

While interesting, the French and British national identity studies are not perfect examples of the process by which low place in social hierarchy and unhealthy habits are linked via dynamic construction of what a stigmatized social identity implies for two reasons. First, there is no indication that these national identities are stigmatized in these studies and second, in the French identity studies no effort was made to dynamically create a positive we eat healthy identity. However, we found a study that does highlight a dynamic construction process with an otherwise stigmatized identity. In this study, Christensen and colleagues (2013) directly targeted the undermining effect of low place in social hierarchy on vulnerability to negative stereotypes

about one's sexual identity. This virtual reality game field study involved men who have sex with men and have risky sexual health habits including having multiple sexual partners, inconsistent condom use, and substance use connected to sexual encounters. Players had a 'future self' avatar who was positive about sexual attraction but not health risk-taking. Data on identity and condom use were obtained in a follow-up questionnaire, three months after playing the game. Data from participants who played the game were compared with data collected three months later from a comparison control group. Playing the game was associated with change in identity --less endorsement of negative stereotypes about gay people, and less endorsement of these negative stereotypes was associated with more consistent condom (Christensen et al., 2013). This study thus shows that playing a game with an avatar who represents an accepting future self focused on health changes how men experience their sexuality and hence reduces their subsequent risky habits.

Action-Readiness

Once an identity and identity content come to mind in context, people have a propensity to act in ways that fit that identity, to do the things that 'we' do. This readiness to act in identity congruent ways is the second component of identity-based motivation, termed action-readiness. Consider snacking. Whether fruit or candy is the snack of choice depends in part on what seems normative. To test this prediction, Mollen, Holland, Ruiters, Rimal, and Kok (2016) first conducted a pilot documenting that Dutch college students reported both fruit and candy as common snacks. Then they conducted two studies; in both they divided students into five groups using random assignment. One group was told nothing. Two other groups were either told that students at their university ate fruit because it was good or did not eat candy because it was bad. The two final groups were either told that students at their university were of the opinion that

students should eat fruit because it was good or should not eat candy because it was bad. In one study, students' subsequent desire to eat fruit and candy was tested by looking at difference in reaction time to pull a picture of fruit (or candy or a control) toward themselves (a measure of approach motivation) as compared to reaction time to push the picture away (a measure of avoidance motivation). In the second study, students had to choose between candy, vegetables, fruit, and a cracker and nuts sampler as part of a taste test. Which choice they made and how much they ate were assessed.

Action-readiness implies that people should be prone to act in identity-congruent ways, dynamic construction of identity implies that which actions feel identity congruent should be a function of contextual cues. Just as predicted, in both studies, students were more sensitive to the descriptive norm (what students at their university did) than to the proscriptive norm (what students at their university said people should do). They were quicker to pull toward themselves, more likely to choose and to eat more of the foods that they had just learned that students like themselves actually chose.

While demonstrating action-readiness, these results do not show that the stigma of low-place in social hierarchy together with action-readiness can undermine healthy behaviors because college students do not occupy low place in social hierarchy. This gap was addressed in a series of experiments by Oyserman, Fryberg and Yoder (2007). In their first study, they asked American Indian, African American, European American and Latino college students to report how frequently they engaged in a series of health-related habits. Although not marked as such, some of the habits were healthy (e.g., getting enough sleep) and some were not (e.g., drinking soda). After reporting on their own habits, participants were asked to report, on a separate sheet, how 'white and middle class' each habit was. People are often uncomfortable reporting

stereotypes, even if they influence their behavior. Yet, not only did the average frequency of health-related habits differ, with European American students reporting higher frequency of healthy habits, but also American Indian, African American and Latino students reported that these healthy habits were things that white and middle class people did. It should be noted that white and middle class students did not see this connection between healthy habits and ‘white and middle class.’ Thus the American Indian, African American and Latino students saw health promotion as whiter and more middle class than did the European American students.

Of course saying that healthy habits are ‘white and middle class’ does not necessarily mean that it is not also in-group defining for other racial-ethnic and social class groups. Therefore, in Study 2 African American and Native American students were asked to report how much each habit fit with their in-group (e.g., African-Americans reported how “Black” each habit was) (Oyserman, et al., 2007, Study 2). African American and Native American participants reported that healthy habits were *not* in-group things to do; they rated these habits below the mid-point, disagreeing that health promotion was an in-group thing to do. For example, an item was ‘exercise daily’ and the response pattern implied that the participants did not think that ‘we’ exercise daily. At the same time, African American and Native American participants also reported that unhealthy habits were in-group things to do; they rated these habits above the midpoint, agreeing that unhealthy habits were in-group things to do. For example, an item was ‘eat fried foods’ and the response pattern implied that participants did think that ‘we’ eat fried foods. Taken together, the results of these first two studies suggest a problem, that in the eyes of American racial-ethnic minorities, health and health promotion are ‘white and middle class.’

Being reminded of racial-ethnic and social class identities should increase health fatalism and reduce health knowledge if these groups are stereotyped as not engaging in healthy habits. To test this prediction directly, in Studies 3 and 4 low-income minority middle school students were randomly divided into two groups (Oyserman et al., 2007). Each group responded to the same questions, but in different orders. One group was not reminded of stereotypes. They were first asked questions about health fatalism (Study 3, “Some people are healthy; others die young; that is just the way it is” and “Everyone gets fat over time; there is no point worrying about it.”) or about healthy habits (Study 4, chosen to reflect the content of their health curriculum, e.g. “List benefits of drinking water”). The other group was first reminded about stereotypes. They were asked questions that were meant to remind them of their racial-ethnic and socioeconomic identities. Specifically, these students were presented with the stem “I am . . .” followed by boxes, each containing a race–ethnicity: Black/African American, White/ European American, and Hispanic/Mexican American/Latino. Then they were presented with the stem “In my family, having enough money . . .” followed by boxes, each containing a phrase: “is an issue all the time,” “is an issue some months more than others,” and “is an issue when I make plans.” As predicted, the group reminded about stereotypes was higher in health fatalism (Study 3), and lower on healthy habit knowledge (Study 4). These results imply that racial-ethnic minority and low-income children are exposed to stereotypes that healthy habits are not a ‘we’ thing to do.

Follow-up studies conducted by Rivera (2016; Rivera & Paredez, 2014) directly linked stereotype accessibility to identity congruence. In these studies, African American and Latino American participants were divided into two groups, one group was first asked about food preferences and the other group was first exposed to stereotypes about their group then asked

about food preference. Stereotype exposure was associated with increased preference for unhealthy foods and decreased preference for healthy foods.

Of course what an identity implies for health is also a function of whether individuals experience the identity itself as stigmatizing. If an identity such as LGBT or substance user is not experienced as stigmatizing, then healthy habits-- using a condom, adhering to HIV prevention behaviors or treatment regimens may be experienced as enacting one's identity. In contrast, if that same identity is stigmatized and does not feel congruent with other important identities, people may fail to engage in these habits (e.g., Albarracin et al., 2006; Johnson, Carrico, Chesney, & Morin, 2008; Kashubeck-West & Szymanski, 2008; Newcomb & Mustanski, 2011). This failure may occur for a number of reasons. One is that the healthy habit is not activated because it is linked to a stigmatized identity that is actively disengaged from. Another is that the healthy habit itself is tainted signaling membership in the stigmatized group.

Yet, as shown by Guendelman, Cheryan and Monin (2011), stereotype exposure can have negative effects on healthy habits even if the in-group is stereotyped as healthy. These authors asked what happens when one's healthy in-group behaviors turn into stigmatizing evidence of not being sufficiently American. They had Asian American college students come to the lab for a 'food preferences' study. Students were asked to make food choices and told that they would later be given one of their choices. Prior to providing instructions, the research assistant first asked participants in the experimental condition 'do you speak English?' or 'are you American?'. In the control condition, no mention of their racial-ethnic or national identity was made. In this way, half of participants were likely to have had their racial-ethnic or national identity on their mind in a way that led them to experience their Americanness as ambiguous to others, while also potentially feeling stigmatized and separate from other 'Americans'. Respondents in the control

condition (who were not made to be concerned about whether their Americanness was ambiguous) chose more Asian foods than American foods. Respondents in the experimental condition, whose American identity was threatened, chose more American than Asian foods. Not only did they choose differently, but because they ate what they chose, their choice had consequences-- Asian foods were healthier and had less calories -- choosing American foods meant making less healthy and higher calorie choices. As these results show, even if a social identity is congruent with healthy choices, if it carries a stigma then people may choose unhealthy options if these options affirm another more valued aspect of their identity --in this case, being an American.

It is not only stereotypes about the in-group that matter, stereotypes about out-groups matter as well since readiness to act in ways that are identity-congruent implies fitting with one's own group and not another group. Which groups are relevant out-groups are a function of immediate context. Berger and Rand (2008) showed that undergraduates could be led to engage in more healthy habits (less junk food, less alcohol) if they were guided to consider unhealthy habits as a feature of out-group (graduate students) that pre-tests had shown they did not want to be mistaken for. Berger and Rand (2008) provided undergraduates with subtle cues about graduate student eating and drinking habits and showed that undergraduates' habits shifted away from those of the out-group. For example, in one study, undergraduate dorm hallways were decorated with posters. Half of the dorms had posters about the dangers of underage drinking and half of dorms had posters about graduate students. These posters pointed out that lots of graduate students drink alcohol and the unpleasantness of being mistaken for a graduate student (i.e. 'Lots of graduate students at Stanford drink... and lots of them are sketchy. So think when you drink... Nobody wants to be mistaken for this guy'). Undergraduates reported less alcohol consumption

after being exposed to posters about graduate students as compared to the posters about the dangers of alcohol drinking. These results support the prediction that once an identity (“undergraduate”) comes to mind, people prefer to act in identity-congruent ways and not in identity incongruent ways but that what that implies depends on how an identity is construed in context. Once being an undergraduate is framed as being distinct from being a graduate student, then whatever graduate students do, ‘we’ should not.

Procedural Readiness

The third component of identity-based motivation is procedural readiness, readiness to use particular mental procedures to make sense of ambiguous experiences. A large body of research documents the mental procedures that are associated with momentarily or chronically activating individualistic and collectivistic cultural mindsets (for a review, Oyserman, in press). This research documents that how people think about themselves – as members of groups or as distinct individuals, influences how they think more generally – such as connecting and relating information or focusing on a main point (e.g., Kuhnen & Oyserman, 2002; Oyserman, Sorensen, Reber, & Chen, 2009).

Beyond individualistic and collectivistic mindsets, identity-based motivation theory predicts a two-way relationship between momentarily or chronically activated identity congruence and interpretation of experienced ease and difficulty (Fisher & Oyserman, 2016; Oyserman, 2006; 2009; Oyserman, Novin, Smith, Elmore, & Nurra, 2016). Thus, experienced ease and difficulty can be attributed to the target of one’s thinking (the task itself is easy or difficult) or to oneself (the task is easy or difficult for *me*) and people use their experienced ease and difficulty to make inferences about the odds of success and the value of success for themselves. Features of the situation, including which identities are cued and what they seem to

imply for behavior, shape what experienced ease and difficulty seem to mean. Often, experienced ease implies possibility, experienced difficulty implies impossibility, but experienced ease can also imply triviality and experienced difficulty can also imply importance.

Because self-control failures in the health domain are often seen as personal failures (Baumeister & Heatherton, 1996), people who have health conditions believed to be controllable (linked to lifestyle) are stereotyped to lack will or to insufficiently value their health and their poor health outcomes are moralized (Meindl, Johnson, & Graham, in press). These stereotypes and stigmas may influence the accessibility of a particular interpretation of experienced difficulty. That is, someone who has internalized negative ability stereotypes of their group might think that it is just not worth their time to try because people like oneself lack the capacity to succeed – whether due to low ability or lack of willpower. Positive stereotypes and positive markers of identity might work in part by the alternative path – if one’s group has high ability then experienced difficulty implies that one should keep going – after all people like oneself can succeed at these kinds of tasks. The same person can interpret experienced difficulty while engaging in a task as either implying that succeeding is important for the self or impossible for the self (though not both at the same time). Moreover, which interpretation is activated in a given moment matters, as seen in the research summarized below.

As shown in Figure 2, the elements of identity-based motivation are linked, such that contextual cues that activate one element should activate the others. This spreading activation process has been documented in both randomized field trials and experiments (e.g., Oyserman et al., 2006; Oyserman, Terry, Bybee, 2002). One experiment showed that college students guided to experience fit between their identities and the college context were more likely to endorse an interpretation of experienced difficulty as importance (Oyserman, Destin, Novin, 2015). A

second experiment showed that students guided to interpret their experienced difficulty as importance of success for the self were more likely to experience academics as a central part of their identity (Aelenei, Lewis, & Oyserman, 2016; Oyserman et al., 2016; Smith & Oyserman, 2015). Other experiments showed that students guided to interpret their experienced difficulty as implying importance of success for the self spent more time on difficult tasks (Smith & Oyserman, 2015) and performed better on these tasks (Oyserman et al., 2016).

Oyserman, Fryberg, and Yoder (2007, Study 5-7) tested the prediction that interpretation of experienced difficulty matters for health in stigmatized groups by asking American Indian and African American participants about the effectiveness of a number of healthy habits in improving longevity. Before being asked these questions, participants were either guided to experience difficulty or not by giving them a difficult or easy task to do first. An interpretation of experienced difficulty was not provided. However, participants in the experienced difficulty condition responded to their experienced difficulty as if they interpreted difficulty as implying impossibility and carried this interpretation to the next task. They rated healthy habits as less effective in improving longevity than participants who did not experience the difficult task. In a related study, Lewis and Earl (2016) examined the effect of guiding dieters to interpret experienced difficulty as importance versus impossibility on the likelihood that they eat unhealthy food. They found that dieters guided to interpret their experienced difficulty avoiding temptation as importance intended to eat less unhealthy foods compared to those guided to interpret experienced difficulty as impossibility.

A number of studies have documented that where people are located in social hierarchy matters for how they interpret experienced difficulty unless an alternative interpretation is provided. These studies reveal that higher education (Aelenei et al., 2016) and income (Fisher &

Oyserman, 2016) influence how likely people are to endorse the idea that experienced difficulty engaging in a task means that the task is important or impossible for the self. That people with less choice and control over their lives are less likely to chronically assume that difficulty is a sign of importance makes sense. At the same time, even if chronically activated interpretations differ, this does not mean that people are insensitive to contextual cues about what experienced difficulty implies, as was shown in a series of experiments with community college (Aelenei et al., 2016) and high school (Oyserman et al., 2016) students. These experiments randomly assigned students to read and rate how much they agreed or disagreed with one of two sets of four statements. One set of statements was biased to imply that experienced difficulty occurs when tasks are important. The other set of statements was biased to imply that experienced difficulty occurs when tasks are impossible to succeed at. Separate from how much they agreed or disagreed, simply considering a particular interpretation of difficulty mattered, influencing how much students rated academics as central to their future identities, how certain they were that they would attain these identities, and how well they did on standardized writing tasks. Across studies, activating an interpretation of experienced difficulty as implying that a task is important for the self to succeed in was motivating compared to activating an interpretation of experienced difficulty as implying that a task is impossible for the self to succeed in.

The studies described above focused on the positive consequences of interpreting experienced difficulty as importance. This focus on the possibility that experienced difficulty can be a signal of task importance is novel to identity-based motivation theory. However, identity-based motivation theory does not imply that interpreting experienced difficulty as signaling impossibility of success is necessarily always problematic. After all, when something feels difficult to do, that *can* mean that the odds of succeeding are low. If the odds of success are low,

motivation to persist should drop; after all, if a task is basically impossible to do, one should consider switching to something else rather than wasting one's time (Wrosch, 2010). Indeed, that is what expectancy value theories predict (Feather, 1992; Eccles, 2004) and at least to some extent, document (Wigfield & Eccles, 2000). Importance is separate from low odds of success or influence – the odds essentially matter less if something is important (e.g., Higgins 1998a). Importance is also separate from whether a trait is fixed or can change with effort (Yeager et al., 2014). Indeed, interpretation of difficulty as importance shares little variance empirically with belief that abilities can change, with interpretation of difficulty as impossibility, or with self-regulatory focus on avoiding failures (Fisher & Oyserman, 2016; Oyserman et al., 2016). In contrast, interpretation of difficulty as impossibility is associated with believing that abilities cannot change. Hence reducing the likelihood that experienced difficulty will be interpreted as impossibility might be what interventions aimed at reducing stereotype or belongingness threat are targeting, as detailed next.

Using Identity-based Motivation To Understand Interventions To Ameliorate Effects Of Stigma And Stereotyping

Figure 2 outlines our general process model of how stigmas and stereotypes influence which identities come to mind, the content of these identities, and what they imply for action and interpretation of experience. Stereotype threat theory is commonly used to understand the effect of stigma and stereotyping on behavior and outcomes, including health (Spencer et al., 2016; Steele, Spencer, & Aronson, 2002). The threat in stereotype threat entails in part the fear that one will be viewed through the lens of negative stereotypes associated with a stigmatized social identity. As a consequence, researchers have documented that one way to alleviate this threat is to affirm values that are important and distinct from the stigmatized identity (see Cohen &

Sherman, 2014). Indeed, the application of stereotype threat to health has been widely considered (Aronson, Burgess, Phelan, & Juarez, 2013; Burgess, et al., 2010; Havranek, et al., 2012; Martens, Johns, Greenberg, & Schimel, 2006; Sherman & Cohen, 2006). For example, Burgess and colleagues (2010) suggest that health provider settings can activate stereotypes about patients' racial-ethnic, gender, and social class identities, resulting in increased anxiety, reduced engagement with and commitment to health recommendations.

For a number of reasons, as outlined next, we suspect that interventions aimed at reducing the effects of stereotype threat focus on the negative effect of stereotypes on interpretation of experienced difficulty. In particular, as illustrated in Figure 3, we posit that negative stereotypes cue negative content about one's abilities and the malleability of these abilities and this increases the chances that experienced difficulty will be interpreted as implying impossibility. Hence, as illustrated in Figure 4, interventions that successfully ameliorate these negative effects function to reduce interpretation of experienced difficulty as impossibility.

Our synthesized stigma-IBM model has direct predictions for how stigma might function to increase the likelihood that experienced difficulty is interpreted as implying the impossibility of engaging in healthy behaviors (Figure 3). As detailed in Figure 4, our synthesized stigma-IBM model also makes direct predictions for how stigma, alone, as well as in combination with other beliefs, could yield the kinds of negative attributions that are targeted by existing effective interventions. Negative stereotypes associated with stigmatized groups imply that members of one's group lack valued attributes. Activation of these stereotypes may shape interpretation of experienced difficulty by shaping what experienced difficulty implies – that tasks are impossible for people like oneself. If for example, poverty is associated with the stereotype of a lack of willpower, then to a person who is poor, feeling tempted might imply that not only does one lack

willpower now, but that one will never have it. In the next section, we focus on two types of interventions that, in different ways, turn off the power of this debilitating interpretation of experienced difficulty. Two classes of intervention, those targeting the debilitating experience to the self of experiencing stereotypes, and those targeting the implication of stereotypes that current negative features of the self cannot change are summarized next.

Self-Affirmation Interventions. One of the reasons that experienced difficulty may be interpreted as implying that healthy habits or outcomes are unlikely (impossible for ‘me’) is that experienced difficulty in one domain casts doubt on one’s adequacy as a person. Put another way, if one’s worth as a person is contingent on success in a particular domain then experienced difficulty in that domain carries risk of implying that one is generally inadequate (Crocker & Wolfe, 2001). Self-affirmation, affirming oneself by reminding oneself that one’s adequacy is not dependent on the stigmatized domain, is a way to alleviate this. This is done through various methods, but the most common involves picking one’s most important value from a list (e.g. family, religion) and then writing about that value (for a review see McQueen & Klein, 2007). This method of affirming one’s worth increases willingness to take smoking cessation pamphlets and motivation to quit smoking (Armitage, Harris, Hepton, & Napper, 2008; Harris, Mayle, Mabbot, & Napper, 2007). We hypothesize that affirmation interventions moderate the negative consequence of interpreting difficulty as impossibility -- affirmation reduces how threatening the experienced difficulty is, reducing interpretation of difficulty as impossibility, and so facilitating engagement with healthy habits.

In the domain of health, self-affirmation interventions are particularly effective for stigmatized groups – on average effects are lower for non-stigmatized group members (e.g., Epton, Harris, Kane, van Koningsbruggen, & Sheeran, 2014). In addition, self-affirmation

interventions are most effective when targeting threat, whether the threat of being an African-American going to a race-discordant health setting (Havranek et al., 2012) or being a smoker receiving information about smoking (Harris et al., 2007). An identity-based motivation perspective helps clarify why this is so. If self-affirmation works by separating the self from a threatening experience of difficulty, affirmation should only work if a salient identity implies that experienced difficulty should be interpreted as impossibility. Otherwise experienced difficulty might not be threatening and might even improve engagement if it implies importance to the self.

Growth Mindset Interventions. Another reason that experienced difficulty may be interpreted as implying that healthy habits or outcomes are unlikely (impossible for ‘me’) is that negative stereotypes imply that one’s capacities are both low and fixed --cannot change. If capacities are fixed, then experienced difficulty is threatening because it implies that effort is hopeless. In contrast, if capacities can change with effort then experienced difficulty is not threatening because it does not imply that success is impossible. Hence interventions that guide participants to believe that their capacities can change should reduce the likelihood that stigmatized and negatively stereotyped individuals interpret their experienced difficulty as implying that they lack will, capacity, or ability (Job, Dweck, & Walton, 2010; Yeager, Johnson, Spitzer, Trzesniewski, Powers, & Dweck, 2014). Indeed, interpretation of difficulty as impossibility is negatively correlated with believing that capacity can change while interpretation of difficulty as importance is not correlated with belief about malleability of ability (Fisher & Oyserman, 2016; Oyserman et al., 2016). While not directly tested, these studies suggest that being guided to think of willpower or ability as capable of changing may reduce the likelihood of interpreting difficulty as implying impossibility.

Summary

We examined the ways in which social, cultural, and social structural forces shape how others respond to low-income and minority status individuals and how people at different places in social hierarchy make sense of their experiences. We highlighted the interface between healthy habits (and having healthy outcomes) and stigmatized identities in light of identity-based motivation theory (Oyserman, 2015a, 2015b), detailing the specific process by which identity mediates the relationship between stigma and health disparities. We reviewed the research literature, documenting that each component of identity-based motivation theory --dynamic construction, action readiness, and procedural readiness-interpretation of experienced difficulty predicted healthy choices in the moments and habits over time. We summarized interventions that aimed to moderate the negative effects of stigma and stereotyping, particularly on interpretation of experienced difficulty.

Our general model, as delineated in Figure 2, is that a salient stigma or stereotype about one's race-ethnicity, social class or other social group is likely to influence each component of identity-based motivation. That is, social contexts cue stereotypes about stigmatized groups, the content of which, for many stigmatized groups, involves poor choices and lack of will, lack of capacity, and lack of ability to make better choices. Hence, once stereotypes come to mind, they cue the stigmatized social identities as well as a particular way of thinking about these identities. While accepting the stereotype can make these identity-driven processes even more corrosive, effects are expected unless the stereotype is actively contested.

To understand effects for health and health disparities, we focused on poverty, sexual orientation, and racial-ethnic minorities. Membership in each of these social categories is stereotyped and stigmatized in somewhat similar ways. In each case, the group is seen as

negatively marked by flaws in will and ability --lack of ability, lack of willpower, lack of character. Stereotypes are available, or as Steele has said 'in the air', that is, known to members of a society, whether they endorse them or not. In order for a stereotype to have an impact, the content of the stereotype must be present, that is it must be available (for a review see Higgins, 1998b). Once a stereotype is available then people are likely to experience their identities, their strategies for attaining their health goals, and their experienced difficulties working on these goals in light of these stereotypes if the stereotype is cued or brought to mind in the moment. That is, an available stereotype, once activated, frames experience in terms of one's adequacy as a person, one's willpower and moral character. From an identity-based motivation perspective, this means that once stereotypes are activated a cascade of identity content, readiness to act and meaning-making is also activated. Hence, an activated stereotype influences which identities come to mind and what they seem to imply --people are more likely to think of their identities as including unhealthy habits and less likely to see healthy habits as identity-congruent. An activated stereotype influences which behaviors feel identity congruent; people are more likely to act on unhealthy than healthy opportunities as they arise. Finally, an activated stereotype influences how experience is interpreted, people are more likely to interpret experienced difficulty as meaning impossibility, that taking healthy action is really not for 'people like me.' As a result health fatalism should increase and belief in the efficacy of health regimens for them should decline.

Because features that are seen as related to a stigmatized group (e.g., race-ethnicity, social class, or sexual orientation), including physical traits (e.g., skin tone, appearance) and mannerisms (e.g., vocabulary, posture), are often themselves stigmatized, stigma and stereotypes are easily cued. Looking, sounding, or acting like a member of a stigmatized group can cue

stigmatizing responses in others. The features (e.g., dark skin tone) that are linked with an identity (e.g., African American) both trigger others' response and shape how that identity is understood in the moment, the strategies that come to mind, and how experienced difficulty is interpreted. If one's place in the social hierarchy makes healthy choices hard and a salient identity highlights an interpretation of experienced difficulty as implying that the task is impossible for one to succeed, then negative effects of social hierarchy are compounded. If being overweight results in being treated as if one is unlikely to have the willpower and future orientation to follow-through on health related behaviors, then difficulties are more likely to be interpreted as related to poor character.

With regard to the first component of identity-based motivation, dynamic construction of identity, the research that we summarized implies that whether health and healthy behaviors are included or excluded in a social identity depends in part on how these identities are cued in the moment. The literature documents effects whether stigmas relevant to one's own group or for stigmatized out-groups come to mind. The implication is that dynamic construction of identities entails social comparisons. The literature documents effects on health of shifting the content of current identities. Effects due to shifting the content of possible future identities have been shown for academics. Some research has examined the effect of stigmas on the strategies people use – what is called readiness to act in identity-based motivation theory. Future research examining the interplay between stereotyping and stigma and future identities in the domain of health is needed.

We also found literature relevant to the third component of identity-based motivation, procedural readiness. The particular procedure we focused on was interpretation of experienced difficulty. The literature we summarized shows that people are sensitive to the interpretation of

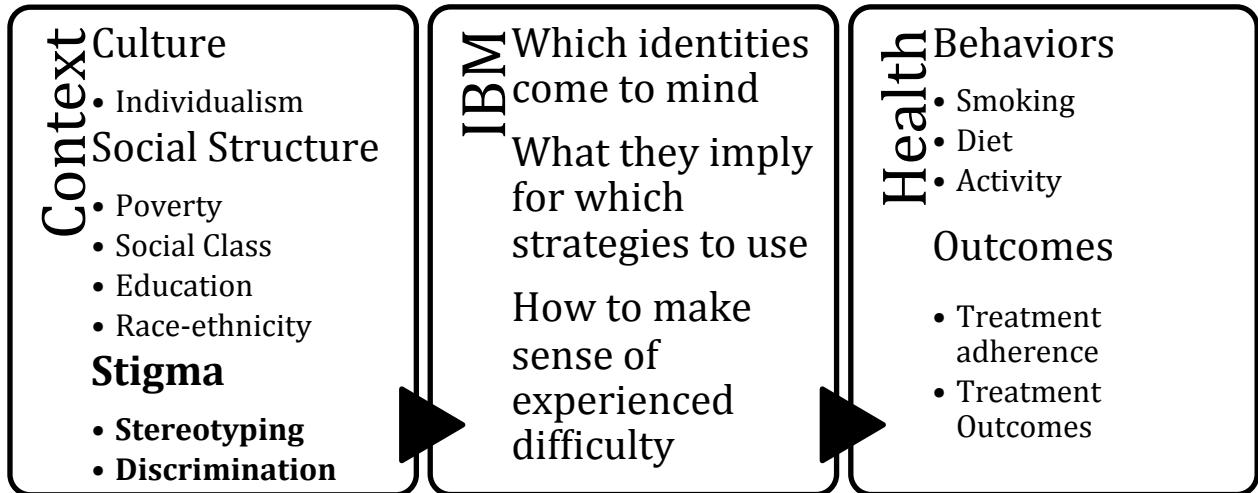
experienced difficulty that is cued in context. When difficulty is interpreted as implying task importance, people spend more time, engage more fully and attain better results. Dieters report increased ability to resist temptation if they interpret difficulty as importance (Lewis & Earl, 2016). When stereotypes about stigmatized groups highlight lack of will and ability, interventions that target and reduce interpretation of experienced difficulty as implying impossibility can be effective. One version of these interventions is to reassure individuals that experienced difficulty in a health domain does not carry over to one's worth as a person (self-affirmation). Another version of these interventions is to reassure individuals that experienced difficulties in a health domain do not imply that one cannot change (growth mindset). Both ways of reducing the likelihood that experienced difficulty is interpreted as implying impossibility are promising. Future research examining the health impact of directly intervening to increase the likelihood that experienced difficulty is interpreted as implying importance is needed since research in this domain has focused mostly on academic outcomes.

Conclusions and Thoughts for Future Directions

An identity-based motivation perspective on the interface between macro-level socio-structural and socio-cultural features, stigma and stereotyping, and health outcomes highlights and centralizes identity processes. Even though poverty, stigma, and stereotyping are macro-level, structural problems that seem immune to psychological intervention, the experimental research we summarized suggests reason for optimism. As our synthesis of the research literature on identity-based motivation demonstrates, small shifts in context can matter if they change the meaning people make of who they are and hence which behaviors make sense to them. Shifts in meaning matter not because they transform difficult choices into easy ones but because they transform how experienced difficulty is interpreted. Experienced difficulty can be motivating –

‘no pain no gain’, or demotivating ‘who was I kidding, this is not for me’. Hence an important future direction is to consider how policy makers can effectively use the insights of the synthesized stigma-IBM model (Lewis & Oyserman, 2016). Current health promotion policies may be more effective among the less stigmatized because they do not take into account what stigmas imply for identity and identity-based motivation. In order for benefits to be universal, they need to be implemented for those most at risk of interpreting difficulty as impossibility and healthy behaviors as identity-incongruent. These individuals are often clustered in social groups at the bottom of social structural hierarchies and need to be included in work, school, and community-based efforts that support health as the American way.

Figure 1: From social context to identity-based motivation to health behaviors and outcomes: A situated process model (Stigma effects are bolded as they are detailed in Figure 2).



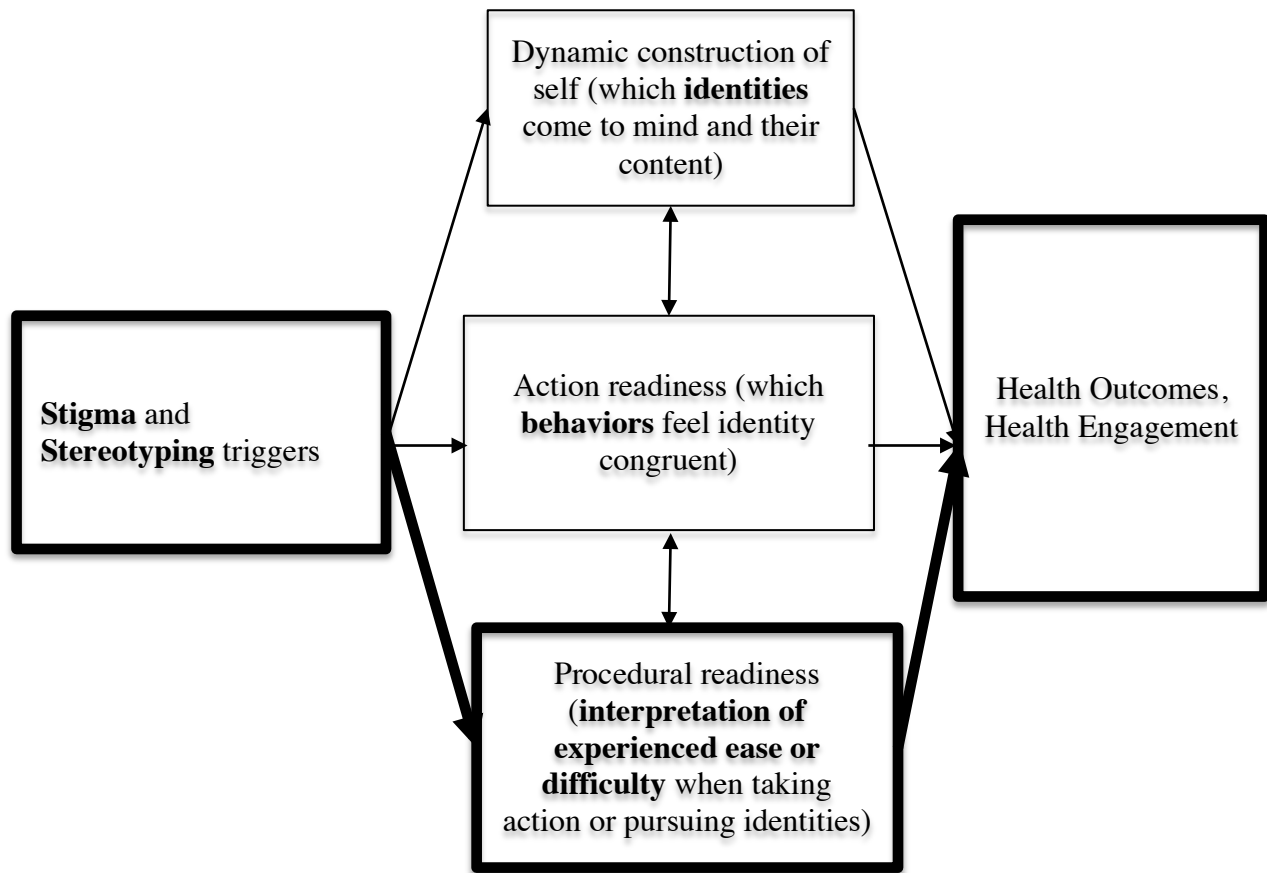


Figure 2: A synthesized stigma-identity based motivation model. A feature of context (stigma and associated stereotypes) influences the three components of identity-based motivation (dynamic construction, readiness to take action and make meaning in identity-congruent ways). The path from stigma to health via procedural readiness is in boldface as it is detailed in Figure 3.

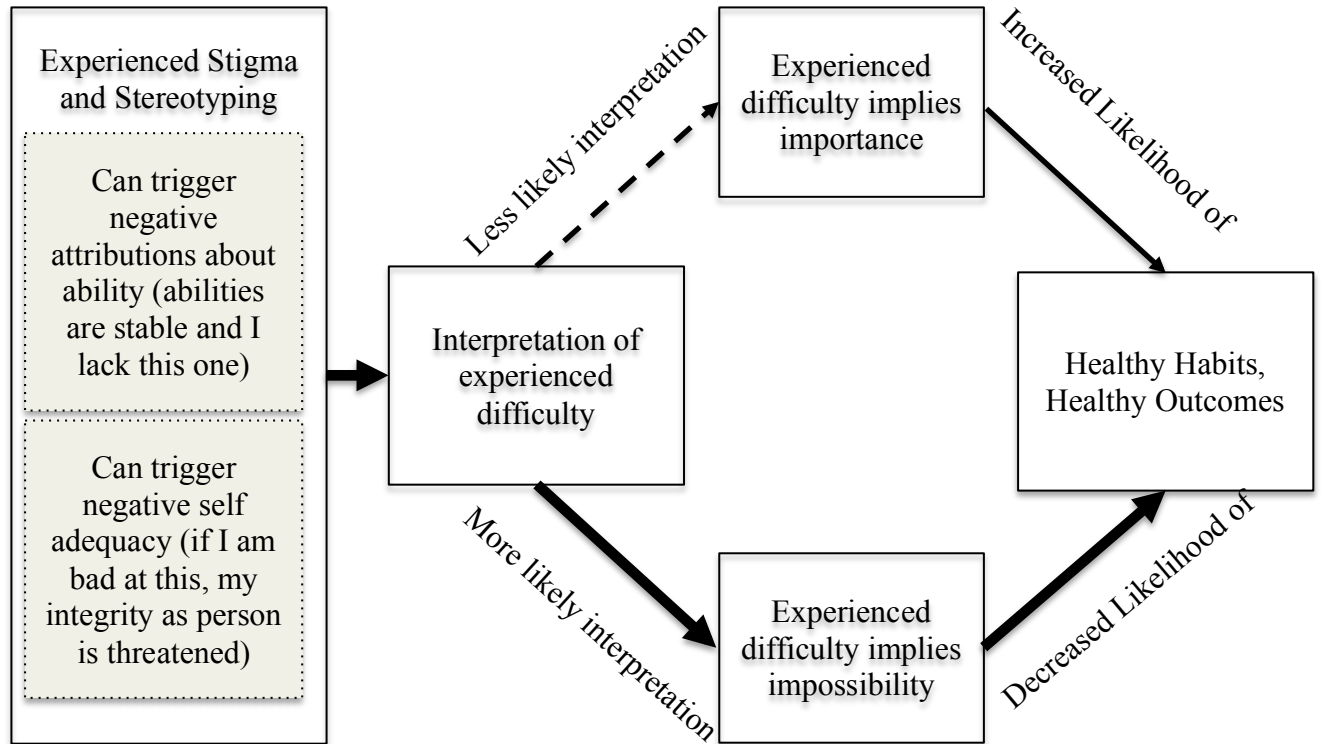


Figure 3: The detailed process by which experienced stigma and stereotyping influences interpretation of experienced difficulty and hence health. Interventions to reduce stereotype and belongingness threat focus on the boldfaced path, as detailed in Figure 4

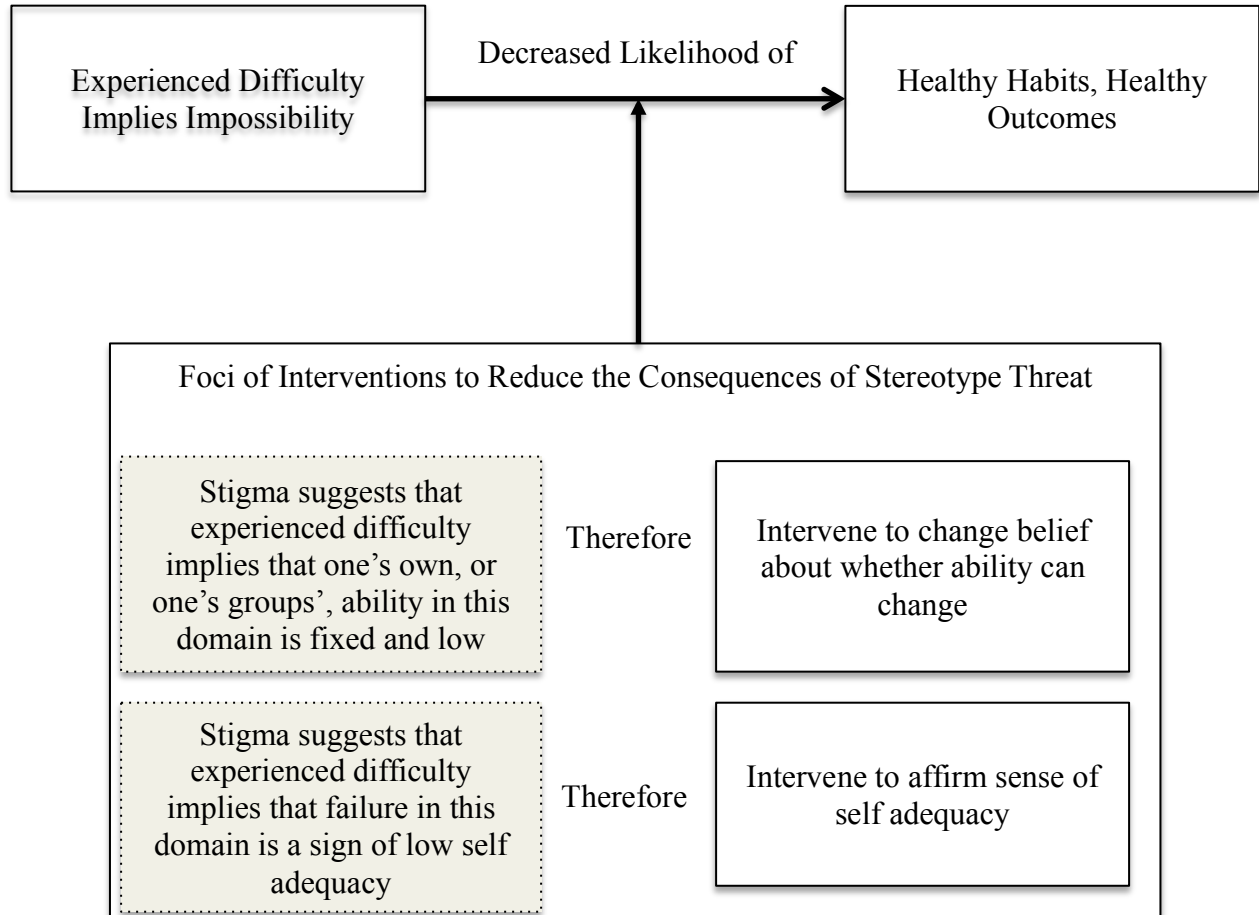


Figure 4: Health interventions aimed at reducing the consequences of stereotype threat likely work in part by moderating the negative effect of the stereotype on likelihood that experienced difficulty will be interpreted as impossibility.

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