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► To cite this version:

Mickaël Jury, Annique Smeding, Nicole M. Stephens, Jessica E. Nelson, Cristina Aelenei, et al.. The Experience of Low-SES Students in Higher Education: Psychological Barriers to Success and Interventions to Reduce Social-Class Inequality. *Journal of Social Issues*, 2017, 73 (1), pp.23 - 41. 10.1111/josi.12202 . hal-01644824

HAL Id: hal-01644824

<https://hal.science/hal-01644824>

Submitted on 5 Oct 2021

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The Experience of Low-SES Students in Higher Education: Psychological Barriers to Success and Interventions to Reduce Social-Class Inequality¹

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The economic decline of the Great Recession has increased the need for a university degree, which can enhance individuals' prospects of obtaining employment in a competitive, globalized market. Research in the social sciences has consistently demonstrated that students with low socioeconomic status (SES) have fewer opportunities to succeed in university contexts compared to students with high SES. The present article reviews the psychological barriers faced by low-SES students in higher education compared to high-SES students. Accordingly, we first review the psychological barriers faced by low-SES students in university contexts (in terms of emotional experiences, identity management, self-perception, and motivation). Second, we highlight the role that university contexts play in producing and reproducing these psychological barriers, as well as the performance gap observed between low- and high-SES students. Finally, we present three examples of psychological interventions that can potentially increase both the academic achievement and the quality of low-SES students' experience and thus may be considered as methods for change.

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The Great Recession (officially 2007–2009; U.S. Bureau of Labor Statistics, 2012) influenced Western societies at every level. One of the major issues associated with this crisis—the decline in the labor market—disproportionately influenced the current generation of young adults, leading some scholars to rename them the “lost generation” (Aronson, Callahan, & Davis, 2015; Scarpetta, Sonnet, & Manfredi, 2010). Given the scarcity of jobs, competition for employment increased tremendously. As a consequence, having a university degree became all the more critical for gaining and keeping employment in most Western countries. For example, during the recession in the U.S. context, individuals with lower levels of education (high school or less) were hit the hardest and claimed 78% of the job losses, while those with at least a bachelor's degree experienced job growth (Carnevale, Jayasundera, & Cheah, 2012). Moreover, after the recession came to a close, U.S. employment growth was the highest for those who hold a bachelor's degree or more (Carnevale, Smith, & Strohl, 2013; for employment statistics on the European context, see Mourshed, Patel, & Suder, 2014). Scholars predict that this trend is likely to continue, and that by 2020 postsecondary education will be required for 65% of jobs (Carnevale et al., 2013). This is a drastic shift from four decades earlier when only 28% of jobs required postsecondary education.

At the same time that a college degree has become pivotal to success in society, access to a college degree is out of reach for many. Indeed, among students 25–34 years old in the United States, those whose parents do not have a high school degree represent 8.15% of the student population (OECD,

¹ This paper has been accepted for publication in the *Journal of Social Issues* in 2017. This version is a post-print.

2014). This extends to contexts beyond the United States. In France, for instance, this student category represents 9.61% of the student population (OECD, 2014). In addition to the economic barriers students may face in their access to college (Mourshed et al., 2014), converging evidence shows that after students enter higher education, their socioeconomic status² continues to influence their college experiences, academic achievement, and ultimately rates of graduation (e.g., OECD, 2014).

Past literature reviews and research reports that focus on differences in students' college experiences due to socioeconomic status have reported disparities in terms of college preparation, students' employment status while in college, and performance in college (Aronson, 2008; Engle & Tinto, 2008; Merritt, 2008; Spiegler & Bednarek, 2013; Tym, McMillion, Barone, & Webster, 2004; Walpole, 2003). For example, first-generation students (i.e., students whose parents do not have a bachelor's degree or higher) tend to have a lower grade point average (i.e., GPA; Chen & Carroll, 2005; Harackiewicz et al., 2014; Stephens, Hamedani, & Destin, 2014) and are more likely to leave college without a degree than are continuing-generation students (i.e., students who have at least one parent with a bachelor's degree or higher; DeAngelo, Franke, Hurtado, Pryor, & Tran, 2011).

The present article discusses the potential *psychological* barriers that low-SES students face in higher education as a result of the foundational cultural practices that guide how universities function. Indeed, as noted by Aronson (2008, p. 50), "the vast majority of research on class differences in postsecondary education has focused on objective patterns of enrollment and attainment. Subjective processes are a black box that has not been fully explored." Therefore, the present article aims to fill this gap by reviewing research on the psychological barriers associated with students' SES in higher education. By psychological barriers, we mean students' emotional experiences (e.g., emotional distress, well-being), identity management (e.g., sense of belonging), self-perception (e.g., self-efficacy, perceived threat), and motivation (e.g., achievement goals, fear of failure). To identify all relevant articles, we conducted an exhaustive search with several databases (e.g., PsycINFO, Google Scholar), using search keywords such as: *low-SES college students, low-income college students, first-generation college students, emotions, anxiety, stress, identity, sense of belonging, threat, stereotypes, self-efficacy, self-perception, motivation, achievement goals*, as well as variations of these search terms. Additionally, we examined the reference lists of previous review articles (e.g., Aronson, 2008; Spiegler & Bednarek, 2013; Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012) in order to achieve a comprehensive list of articles. The first section reports the findings from research published within the last 20 years that illustrates the psychological barriers that low-SES students face in higher education.

The second section presents mechanisms recently identified in the social- psychological literature for how and why these psychological barriers, as well as differences in performance, are sustained. In particular, we focus on how specific university practices and cultural norms contribute to the production and reproduction of these psychological barriers.

Finally, the third section reports three recent psychological interventions that may increase the quality of low-SES students' experience in higher education and decrease performance disparities.

The Psychological Barriers Faced by Low-SES Students in Higher Education

Higher education is far from being a culturally neutral environment for low- SES students, notably because the system is "built and organized according to taken for granted, middle- and upper-class cultural norms, unwritten codes, or 'rules of the game'" (Stephens, Fryberg et al., 2012, p. 1178). As a result, when low- SES students enter contexts of higher education and face these unknown "rules," they can experience psychological barriers in (1) emotional experiences (e.g., emotional distress, well-

² Students' socioeconomic status (SES) refers to family rank in society, based on income, parental education, or occupation (Markus & Fiske, 2012). This article reviews research using various measures of students' SES (income, occupation, education).

being); (2) identity management (e.g., sense of belonging); (3) self-perception (e.g., self-efficacy, perceived threat); and (4) motivation (e.g., achievement goals, fear of failure). This section reviews these psychological barriers.

Emotional Experiences

In the context of higher education, low-SES students' emotional experiences are quite different from the emotional experiences of high-SES students, such that low-SES students are more likely to feel and express greater emotional distress than high-SES students. More precisely, first-generation students exhibit higher levels of self-reported depression (Stebbleton, Soria, & Huesman, 2014; Steptoe, Tsuda, Tanaka, & Wardle, 2007; Wang & Castañeda-Sound, 2008) and lower self-reported well-being than do continuing-generation students (Jenkins, Belanger, Connally, Boals, & Duron, 2013; Padgett, Johnson, & Pascarella, 2012; Tong & Song, 2004). In addition, first-generation students report having fewer opportunities to talk about their negative experiences (Barry, Hudley, Kelly, & Cho, 2009) and are more likely to feel guilty about their educational achievement (Covarrubias & Fryberg, 2015). Such negative emotional experiences also appear to be reflected in students' physiological functioning: In lab contexts that seek to reproduce traditional college contexts, low-SES students demonstrate higher levels of physiological stress markers than do high-SES students (John-Henderson, Rheinschmidt, Mendoza-Denton, & Francis, 2013; Stephens, Townsend, Markus, & Phillips, 2012).

Identity Management

Identity management is one of the toughest challenges low-SES students face when entering in the cultural context of higher education (Jetten, Iyer, Tsivrikos, & Young, 2008). Reay, Crozier, and Clayton (2009) notably refer to this as an "out of field experience" (p. 1110)—"the idea that low-SES students in traditionally high-SES environments experience a feeling of disjointedness in navigating the college environment versus the environment they grew up in. Indeed, higher education is a new and often unfamiliar environment for low-SES students, and they often have difficulty embracing their new identity as college students (Aries & Seider, 2005; Hinz, 2016; Lee & Kramer, 2013; Reay et al., 2009; Reay, Crozier, & Clayton, 2010; Venus Moschetti & Hudley, 2015).

In addition, as low-SES students are in the minority in higher education (Alon, 2009; Hearn & Rosinger, 2014), their underrepresented identity is likely to be quite often salient to them, regularly reminding them of their differences from others (Orbe, 2004; see also Martin, 2015). Consequently, low-SES students regularly report feeling like they "do not belong" in the college context (Harackiewicz et al., 2014; Ostrove & Long, 2007; Pittman & Richmond, 2007; Rubin, 2012; Soria & Stebleton, 2013) and are particularly prone to experience "imposter syndrome" (i.e., the feeling that they do not truly deserve to be there and that they fooled anyone who thinks otherwise, see Gardner & Holley, 2011). Such a feeling might also be explained by these students being aware of their underprivileged background (Sanders & Mahalingam, 2012). Finally, in this process of negotiating their new identity, low-SES students perceive less support from their families (Jenkins et al., 2013; Sy, Fong, Carter, Boehme, & Alpert, 2011) compared to high-SES students.

Self-Perception

In higher education, low-SES students also have to deal with others' negative views of them. Indeed, much research shows that low-SES students suffer from negative stereotypes regarding their competence (i.e., low-SES individuals are perceived as less competent than high-SES individuals; Fiske, Cuddy, Glick, & Xu, 2002; see also Durante, Tablante, & Fiske, 2017; Volpato, Andrighetto, & Baldissari, 2017).

Such negative stereotypes and associated practices have implications for students' psychological functioning. Notably, low-SES students have lower perceptions of their competencies, report lower self-efficacy, and have lower self-reported perceptions of their own intelligence than do high-SES students (Hellman & Harbeck, 1997; Ivcevic & Kaufman, 2013; Kudrna, Furnham, & Swami, 2010; Ramos-Sanchez & Nichols, 2007; Stebleton & Soria, 2012). These negative stereotypes negatively influence low-SES students' psychological functioning in terms of emotions and cognition in the college context (e.g., Croizet & Claire, 1998; Harrison, Stevens, Monty, & Coakley, 2006; John-

Henderson et al., 2013; Spencer & Castano, 2007). Indeed, research on “stereotype threat” (for a recent review, see Pennington, Heim, Levy, & Larkin, 2016) shows that in situations where a group’s negative stereotype is activated, members of the targeted group (e.g., African Americans on a test of intellectual abilities, Steele & Aronson, 1995; women on a math test, Spencer, Steele, & Quinn, 1999) are likely to feel threatened by the stereotype. More precisely, the fear of confirming the negative stereotype increases the cognitive and the emotional load, which may ultimately hinder their ability to perform up to their potential.

These negative stereotypes also contribute to classism—that is, “negative attitudes, beliefs, and behaviors directed toward those with less power, who are socially devalued” (Lott, 2012, p. 654). First-generation students can suffer from a form of classism that is specific to the higher education context (Langhout, Drake, & Rosselli, 2009; Langhout, Rosselli, & Feinstein, 2007) and that strongly affects their life and academic satisfaction (Allan, Garriott, & Keene, 2016).

Motivation

Previous research suggests that some forms of motivation are more useful than others to succeed in higher education (i.e., approach-oriented goals; see Linnenbrink-Garcia, Tyson, & Patall, 2008). Recent work on social-class achievement gap in higher education demonstrated that low-SES students endorse more deleterious forms of achievement motivation (i.e., avoidance-oriented goals) than do high-SES students. More specifically, first-generation college students are more likely to be afraid of failure (Bui, 2002) and thus more likely to endorse performance-avoidance goals in college (i.e., trying not to be outperformed by others, Jury, Smeding, Court, & Darnon, 2015; Jury, Smeding, & Darnon, 2015) than do continuing-generation students. Moreover, in competitive departments (e.g., civil engineering), first-generation college students are more likely to experience less fit and consequently, more difficulty in maintaining mastery-goal endorsement (i.e., desire to progress, to master tasks), compared with continuing-generation students (Sommet, Quiamzade, Jury, & Mugny, 2015). Such motivation regulation may be particularly problematic for these students, due, notably, to the negative links usually observed between performance-avoidance goal endorsement and academic performance (Van Yperen, Blaga, & Postmes, 2014).

Summary

Taken together, the research reviewed in this first section suggests that low-SES students experience psychological barriers (e.g., emotional distress, identity-management issues, negative self-perception, and more damaging forms of motivation) that may help to explain their worse academic outcomes (e.g., taking fewer classes, higher drop-out rates, and lower GPAs)³. The next section argues that the specific practices and cultural norms promoted in higher education play a key role in creating these psychological barriers.

Psychological Mechanisms Underlying Social Reproduction in Higher Education

We now turn to how the psychological barriers and the performance gaps experienced by low-SES students are maintained and reproduced. Recent social psychological research suggests that SES-related differences in students’ university experiences are best understood as a product of ongoing interactions between university settings and individuals (Browman & Destin, 2016; Smeding, Darnon, Souchal, Toczek-Cappelle, & Butera, 2013; Stephens, Markus, & Fryberg, 2012). In particular, we argue that university contexts are set up in ways that advantage high-SES students but disadvantage low-SES students.

³ The negative psychological experiences described in this section are not limited to elite universities. Indeed, the research reported here was conducted in different kinds of colleges (e.g., private, public, 4-year, 2-year, selective, not selective, community colleges). Low-SES students seem to struggle even in institutions that are quite heterogeneous and that have missions to serve low-SES students (e.g., community colleges, Fike & Fike, 2008; Hellman & Harbeck, 1997; Pascarella, Wolniak, Pierson, & Terenzini, 2003).

According to sociologist Pierre Bourdieu and his colleagues, the university system sustains the reproduction of social inequalities by promoting attitudes, speech, behaviors, and knowledge that are more congruent with the practices of high-SES families than of low-SES families (Bourdieu, Passeron, & Nice, 1990). Bourdieu and Passeron (1964, 1970) originally argued that low-SES students have a lower chance of success in higher education not only because of less access to economic capital (i.e., financial resources), but also because of less access to cultural capital (e.g., knowledge, behaviors, and values that can be more or less familiar to an individual and more or less promoted in a system; Becker, Kraus, Rheinschmidt, & Keltner, 2017). According to Bourdieu, the parents of low-SES students lack familiarity with the dominant culture of the university system and as a result are unable to effectively transmit the “appropriate” cultural capital to their children (Calarco, 2014; for a review on the difficulties between low-SES parents and school, see Lott, 2001). Below we describe two recent lines of research in social psychology that support Bourdieu’s theories by documenting some specific university practices and cultural norms that contribute to the social reproduction of inequality.

First, the university’s function of “selecting the best students” is one factor that contributes to the psychological barriers faced by low SES students. (Darnon et al., 2009; Darnon, Dompnier, & Poortvliet, 2012; Dornbusch, Glasgow, & Lin, 1996; see also Batruch, Autin, & Butera, 2017). Generally, the educational system serves two distinct functions that can shape university practices. First, universities have a goal to impart knowledge and educate students (i.e., the education function). Second, they have a goal to select individuals who are “the most able and motivated” in order to sort them into positions that vary in their status (i.e., the selection function; Dornbusch et al., 1996, p. 405). To reach the goal of selecting the best students, different selection procedures can be used. For example, selection can occur at the admissions level (e.g., in the Ivy League schools, fewer than 10% of the applicants are admitted as freshmen) or through features of the curriculum (e.g., qualifying exams). All such procedures are driven by the goal to select the students who are ostensibly the most deserving. However, as compared to the education function, the selection function consistently advantages high-SES students (Alon, 2009; Mijs, 2016; Smeding et al., 2013) and might act as a threat to low-SES students’ identity. Illustrating this, one experiment asked students to read a text explaining that universities either have the function of selecting the most deserving students or have the function of helping all students succeed. When the university’s function was described as selection, first-generation students performed worse than continuing- generation students on a math task (Jury et al., 2015; see also Smeding et al., 2013). However, when the university’s function was described as education, there were no performance differences between first- and continuing- generation students.

Second, taken-for-granted cultural norms in university settings can create psychological barriers for low-SES students, and, in turn, fuel the social- class gap in students’ performance. Universities, particularly elite institutions, tend to promote independent values as the cultural ideal (e.g., learn to express yourself, learn to work independently) and are less likely to support interdependent values (e.g., learn to work with others, learn to adjust to others’ expectations; Stephens, Fryberg et al., 2012; Stephens, Markus et al., 2012). Although independent values tend to be relatively congruent with how high-SES students view themselves, these values are relatively less congruent with the interdependent understandings common among low-SES students (Stephens, Markus, & Phillips, 2014). Consequently, when exposed to university materials framed independently, first-generation students feel less comfort and fit, experience greater levels of stress, and ultimately do not perform up to their potential (Stephens, Fryberg et al., 2012; Stephens, Townsend et al., 2012).

To summarize, these lines of research illustrate how university contexts can contribute to the reproduction of social inequalities and psychological barriers faced by low-SES students. First, they do so by institutionalizing “selection” as one of their purposes (i.e., in addition to the educational purpose), and second, by promoting cultural norms that align with high-SES students. The next section presents studies that have tested psychological interventions that seek to reduce the achievement gap between low- and high-SES students in higher education. Of course, for several reasons, including the fact that the achievement gap is susceptible to appear far before entering higher education (Sirin, 2005), eliminating the achievement gap is a challenge. Nevertheless, some interventions based on the above psychological mechanisms have proved to be effective in reducing this achievement gap.

Three Psychological Interventions Designed to Reduce the SES Achievement Gap in Higher Education

When considering how to reduce social-class achievement gaps in higher education, researchers and practitioners should recognize that these gaps are based not only on individual factors, but also the larger university contexts that students inhabit. This section presents three promising interventions that require little time and money to implement in college settings (for an additional example of psychological intervention, see Yeager et al., 2016).

Self-Affirmation

Harackiewicz et al. (2014; see also Tibbets et al., 2016) conducted an intervention that sought to reduce the social-class achievement gap using self-affirmation, which has proven to be effective in reducing stereotype threat (Cohen, Garcia, Apfel, & Master, 2006). In this intervention, first- and continuing-generation students completed a writing exercise in their biology class: They read a list of values (e.g., independence, belonging to a social group) and chose either the two or three most important values for them (in the self-affirmation condition) or the two or three least important values (in the control condition). Then, students explained why these values were important to them (in the self-affirmation condition) or why these values might be important for someone else (in the control condition). At the end of the semester, first-generation students who had affirmed their values earned higher grades than those who did not affirm their values. This effect appeared both on the grades obtained in the biology class and on final overall GPA. Moreover, the intervention reduced first-generation students' concerns about their background. Thus, providing lower SES students with the opportunity to express their own values helped them to recover a sense of integrity, legitimacy, and fit in the academic context (Cohen & Sherman, 2014).

Difference-Education

Stephens et al. (2014) developed a novel intervention approach to reduce the social-class achievement gap, referred to as "difference-education." In this intervention, first- and continuing-generation first-year students participated in a 1-hour panel where older students discussed their experiences in college. In the difference-education condition, panelists shared their stories of how they adjusted to college, and they did so in a way that highlighted how their SES shaped their experiences. In the control condition, panelists told similar stories of college adjustment, but did not discuss the role of their backgrounds.

At the end of the school year, a follow-up survey found that first-generation students who attended the difference-education panel had higher grades and sought more academic resources than those who attended the control panel. Additionally, in a follow-up laboratory study conducted at the end of the second year, all students (regardless of SES) who attended the difference-education panel were more comfortable discussing their backgrounds in a speech task than students who attended the control panel (Stephens, Townsend, Hamedani, Destin, & Manzo, 2015). First-generation students who attended the difference-education panel were also better able to cope with stressful academic situations compared to first-generation students who attended the control panel. In sum, by helping all students to better understand how their SES matters in college, the difference-education intervention increased all students' comfort with their different backgrounds in university settings. At the same time, the intervention equipped first-generation students with the tools that they needed to overcome the challenges they faced in university settings.

Goal Reframing

Smeding et al. (2013) conducted an intervention that sought to reduce the social-class achievement gap by changing the meaning of an exam. Specifically, they reframed its purpose to highlight the learning function of the exam instead of its selection function. Therefore, in this intervention, the exam was presented either as a tool to improve knowledge (i.e., a learning tool, "This exam has been designed to help students in their long-term learning in statistics") or as a tool to identify differences in students' abilities (i.e., a tool for selection, "This exam has been designed to compare students regarding their long-term learning in statistics"). Consistent with the idea that current exam practices foster the social-class achievement gap (Autin, Batruch, & Butera, 2015), results showed that when the exam was presented as a tool for selection, low-SES students performed worse than high-SES students. However, when the exam was presented as a tool for learning, low-SES students performed

just as well as high-SES students. Therefore, reinforcing the formative, learning-oriented function of an exam can reduce the achievement gap and help low-SES students to perform up to their potential.

Limitations and Future Directions

This article highlights the psychological barriers that low-SES students encounter on the pathway to higher education. However, the psychological barriers faced by low-SES students in the college context are only part of the story, and this review is limited in not thoroughly discussing other aspects that influence low-SES students' psychological experiences. For example, researchers should also consider students' early experiences within the school system, as well as their racial or ethnic backgrounds.

Limitations

Low-SES students face barriers far before they enter higher education. The Program for International Student Assessment (PISA) regularly highlights the discrepancy in performance between low- and high-SES students at elementary or secondary school (OECD, 2013; for a meta-analysis see Sirin, 2005). One reason for this discrepancy is that many low-SES children do not benefit from strong support at home (e.g., have access to fewer books, less cognitive stimulation from

their parents, Evans, 2004) to develop their academic skills in math or reading (Bradley & Corwyn, 2002; McLoyd, 1998). Another factor is that low-SES students already have a long experience of classism and threat in the school system (Desert, Preaux, & Jund, 2009; Regner, Steele, & Huguet, 2014). These discrepancies in early experiences hinder low-SES students' preparation for college (Chen & Carroll, 2005) and also contribute to the gap between low- and high-SES students in obtaining higher education.

Additionally, students have multiple identities that may interplay with their SES in the higher education context. Indeed, many low-SES students are also racial or ethnic minorities (Spiegler & Bednarek, 2013). Intersectionality of race/ethnicity and SES can produce issues such as double stigmatization. For example, Ivcevic and Kaufman (2013) showed that low-SES students perceived their abilities as lower than high-SES students and that this effect was qualified by an interaction with ethnicity: Students who perceived themselves as having the lowest abilities were those who were both low-SES and members of ethnic minority groups (for another example of an interactive effect see Covarrubias & Fryberg, 2015). Thus, examining how students' SES interacts with ethnicity or gender (for an example, see Jenkins et al., 2013) in explaining students' psychological experience in higher education is an avenue for future research.

Future Directions

The present article also makes salient that more research is needed to better understand the specific ways in which universities contribute to social inequalities. As the second section highlights, universities tend to promote cultural norms of independence (e.g., "pave your own path") rather than interdependence (e.g., "be part of a community"). Future work could examine how other ideas and practices that are part of the university culture might also fuel the social-class achievement gap and the barriers faced by low-SES students. For example, do universities endorse certain mindsets about the nature of intelligence (e.g., an entity theory) more than others (for an example of intervention based on a growth mindset of intelligence, see Yeager et al., 2016)?

In addition, although much research, including the research reviewed in this article, focuses on low-SES students in university settings, more work needs to examine a broader range of students, as well as their experiences over time and beyond college. For example, the specific experiences of high-SES students are rarely investigated. How might these students fare when faced with the additional concerns that come with the possibility of downward social mobility (Jetten, Mols, Spears, & Postmes, 2017)? Moreover, examining the impact of college experiences on subsequent outcomes, such as graduate school or the workplace, might address how consequential these college outcomes are for students' subsequent career success and lifetime well-being.

Finally, two of the described interventions have been implemented in high-ranking universities. Future work should consider whether these types of interventions are equally effective at community colleges or lower ranked universities that enroll a much higher proportion of low-SES students. A better

understanding of what makes these types of psychological interventions beneficial, and under what conditions, is crucial to increase their effective implementation across a wide variety of contexts.

Conclusion

As the Great Recession has increased the need to obtain a university degree, providing all students with equal chances to succeed in higher education has become a topic of rising interest for scholars and policymakers alike. Recently, the American government (White House Report, 2014, p.2) stated that “[Americans] need to reach, inspire, and empower every student, regardless of background, to make sure that [America] is a place where if you work hard, you have a chance to get ahead.” Such meritocratic beliefs are shared and promoted in many countries (Jost & Hunyady, 2005; Pratto, Sidanius, Stallworth, & Malle, 1994; Son Hing et al., 2011), and in academic contexts in particular (Duru-Bellat & Ten- ret, 2012). In spite of this claim, and as shown in the present article, research consistently documents that in higher education meritocracy is an “unfulfillable promise” (Mijs, 2016). Indeed, the research reviewed in the present article supports the idea that low-SES students not only face economic barriers but also psychological barriers to success in higher education. Thus, providing economic resources to low-SES students and facilitating their access to higher education are necessary steps for reaching more equality in higher education but are certainly not sufficient. Indeed, even if the economic obstacles are overcome, low-SES students may still experience more threat, more health problems, more negative emotions, and lower levels of motivation than their high-SES counterparts. Such “self-debilitating” motivations and behaviors (Sidanius & Pratto, 1999) may in turn produce and maintain the SES achievement gap, resulting in a vicious cycle. Thus, in addition to economic policies designed to help low-SES students to get access to universities, psychological interventions and institutional changes are a necessary and complementary way to minimize the barriers faced by low-SES students and reduce the SES-achievement gap.

References

- Allan, B. A., Garriott, P. O., & Keene, C. N. (2016). Outcomes of social class and classism in first- and continuing-generation college students. *Journal of Counseling Psychology, 63*(4), 487–496. doi:10.1037/cou0000160
- Alon, S. (2009). The evolution of class inequality in higher education: Competition, exclusion, and adaptation. *American Sociological Review, 74*(5), 731–755. doi:10.1177/000312240907400503
- Aries, E., & Seider, M. (2005). The interactive relationship between class identity and the college experience: The case of lower income students. *Qualitative Sociology, 28*(4), 419–443. doi:10.1007/s11133-005-8366-1
- Aronson, P. (2008). Breaking barriers or locked out? Class-based perceptions and experiences of post-secondary education. *New Directions for Child and Adolescent Development, 119*, 41–54. doi:10.1002/cd
- Aronson, P., Callahan, T., & Davis, T. (2015). The transition from college to work during the great recession: Employment, financial, and identity challenges. *Journal of Youth Studies, 18*(9), 1097–1118. doi:10.1080/13676261.2015.1020931
- Autin, F., Batruch, A., & Butera, F. (2015). Social justice in education: How the function of selection in educational institutions predicts support for (non)egalitarian assessment practices. *Frontiers in Psychology, 6*, 707. doi:10.3389/fpsyg.2015.00707
- Barry, L. M., Hudley, C., Kelly, M., & Cho, S. J. (2009). Differences in Self-reported disclosure of college experiences by first-generation college student status. *Adolescence, 44*(173), 55–68.
- Batruch, A., Autin, F., & Butera, F. (2017). Re-establishing the social order: Restorative reactions against high-achieving low social class pupils. *Journal of Social Issue, 73*(1).

Becker, J. C., Kraus, M. W., Rheinschmidt, M. L., & Keltner, D. (2017). Cultural expressions of social class and their implications for ingroup-related beliefs and behaviors. *Journal of Social Issue*, 73(1).

Bourdieu, P., & Passeron, J. -C. (1964). *Les Héritiers: Les étudiants et la culture* [Heirs: Students and Culture]. Paris, France: Les Editions de Minuit.

Bourdieu, P., & Passeron, J. -C. (1970). *La Reproduction: Eléments d'une théorie du système d'enseignement* [Reproduction: Elements for a theory of the educational system]. Paris, France: Les Editions de Minuit.

Bourdieu, P., Passeron, J. -C., & Nice, R. (1990). *Reproduction in education, society and culture* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review of Psychology*, 53, 371–399. doi:10.1146/annurev.psych.53.100901.135233

Browman, A. S., & Destin, M. (2016). The effects of a warm or chilly climate toward socioeconomic diversity on academic motivation and self-concept. *Personality and Social Psychology Bulletin*, 42(2), 172–187. doi:10.1177/0146167215619379

Bui, K. V. T. (2002). First-generation college students at a four-year university: Background characteristics, reasons for pursuing higher education, and first-year experiences. *College Student Journal*, 36(1), 3–11.

Calarco, J. M. (2014). Coached for the classroom: Parents' cultural transmission and children's reproduction of educational inequalities. *American Sociological Review*, 79(5), 1015–1037. doi:10.1177/0003122414546931

Carnevale, A. P., Jayasundera, T., & Cheah, B. (2012). *The college advantage: Weathering the economic storm*. Washington, DC: The Georgetown University Center on Education and the Workforce.

Carnevale, A. P., Smith, N., & Strohl, J. (2013). *Recovery: Projection of jobs and education requirements through 2020*. Washington, DC: The Georgetown University Center on Education and the Workforce.

Chen, X., & Carrol, C. D. (2005). *First-Generation students in postsecondary education a look at their college transcripts*. Washington DC :National Center for Education Statistics.

Cohen, G. L., Garcia, J., Apfel, N., & Master, A. (2006). Reducing the racial achievement gap: A social-psychological intervention. *Science*, 313(5791), 107–1310. doi:10.1126/science.1128317

Cohen, G. L., & Sherman, D. K. (2014). The psychology of change: Self-affirmation and social psychological intervention. *Annual Review of Psychology*, 65, 333–371. doi:10.1146/annurev-psych-010213-115137

Covarrubias, R., & Fryberg, S. A. (2015). Movin' on up (to college): First-generation college students' experiences with family achievement guilt. *Cultural Diversity and Ethnic Minority Psychology*, 21(3), 420–429. doi:10.1037/a0037844

Croizet, J. -C., & Claire, T. (1998). Extending the concept of stereotype threat to social class: The intellectual underperformance of students from low socioeconomic backgrounds. *Personality and Social Psychology Bulletin*, 24(6), 588–594. doi:10.1177/0146167298246003

Darnon, C., Dompnier, B., Delmas, F., Pulfrey, C., & Butera, F. (2009). Achievement goal promotion at university: Social desirability and social utility of mastery and performance goals. *Journal of Personality and Social Psychology*, 96(1), 119–134. doi:10.1037/a0012824

Darnon, C., Dompnier, B., & Poortvliet, M. (2012). Achievement goals in educational contexts: A social psychology perspective. *Social and Personality Psychology Compass*, 6(10), 760–771. doi:10.1111/j.1751-9004.2012.00457.x

DeAngelo, L., Franke, R., Hurtado, S., Pryor, J. H., & Tran, S. (2011). *Completing college: Assessing graduation rates at four-year institutions*. Los Angeles, CA: Higher Education Research at UCLA.

De´sert, M., Pre´aux, M., & Jund, R. (2009). So young and already victims of stereotype threat: Socio-economic status and performance of 6 to 9 years old children on Raven’s progressive matrices. *European Journal of Psychology of Education*, 24(2), 207–218. doi:10.1007/BF03173012

Dornbusch, S. M., Glasgow, K. L., & Lin, I. -C. (1996). The social structure of schooling. *Annual Review of Psychology*, 47, 401–429. doi:10.1146/annurev.psych.47.1.401

Durante, F., Tablante, C., & Fiske, S. T. (2017). Poor but warm, rich but cold (and competent): Social classes in the stereotype content model. *Journal of Social issue*, 73(1).

Duru-bellat, M., & Tenret, E. (2012). Who’s for meritocracy ? Individual and contextual variations in the faith. *Comparative Education Review*, 56(2), 223–247. doi:10.1086/661290

Engle, J., & Tinto, V. (2008). *Moving beyond access: College success for low-income, first-generation students*. Washington, DC: Pell Institute for the Study of Opportunity in Higher Education (ERIC Document Reproduction Service No. ED504448)

Evans, G. W. (2004). The Environment of Childhood Poverty. *American Psychologist*, 59(2), 77–92. doi:10.1037/0003-066X.59.2.77

Fike, D. S., & Fike, R. (2008). Predictors of first-year student retention in the community college. *Community College Review*, 36(2), 68–88. doi:10.1080/01463377209369063

Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878–902. doi:10.1037/0022-3514.82.6.878

Gardner, S. K., & Holley, K. A. (2011). “Those invisible barriers are real”: The progression of first-generation students through doctoral education. *Equity & Excellence in Education*, 44(1), 77–92. doi:10.1080/10665684.2011.529791

Harackiewicz, J. M., Canning, E. A., Tibbetts, Y., Giffen, C. J., Blair, S. S., & Hyde, J. S. (2014). Closing the social class achievement gap for first-generation students in undergraduate biology. *Journal of Educational Psychology*, 106(2), 375–389. doi:10.1037/pspp0000075

Harrison, L. A., Stevens, C. M., Monty, A. N., & Coakley, C. A. (2006). The consequences of stereotype threat on the academic performance of white and non-white lower income college students. *Social Psychology of Education*, 9(3), 341–357. doi:10.1007/s11218-005-5456-6

Hearn, J. C., & Rosinger, K. O. (2014). Socioeconomic diversity in selective private colleges: An organi- zational analysis. *The Review of Higher Education*, 38(1), 71–104. doi:10.1353/rhe.2014.0043

Hellman, C. M., & Harbeck D. J. (1997). Academic Self-Efficacy: Highlighting the first-generation student. *Journal of Applied Research in the Community College*, 4, 69–75.

Hinz, S. E. (2016). Upwardly mobile: Attitudes toward the class transition among first- generation college students. *Journal of College Student Development*, 22(3), 285–299. doi:10.1353/csd.2016.0033

Ivcevic, Z., & Kaufman, J. C. (2013). The can and cannot do attitude: How self-estimates of ability vary across ethnic and socioeconomic groups. *Learning and Individual Differences*, 27, 144–148. doi:10.1016/j.lindif.2013.07.011

Jenkins, S. R., Belanger, A., Connally, M. L., Boals, A., & Duro'n, K. M. (2013). First-generation undergraduate students' social support, depression, and life satisfaction. *Journal of College Counseling*, 16(2), 129–142. doi:10.1002/j.2161-1882.2013.00032.x

Jetten, J., Iyer, A., Tsivrikos, D., & Young, B. M. (2008). When is individual mobility costly? The role of economic and social identity factors. *European Journal of Social Psychology*, 38(5), 866–879. doi:10.1002/ejsp.471

Jetten, J., Mols, F., Spears, R., & Postmes, T. (2017). Fear of falling: Economic instability enhances collective angst among societies' wealthy. *Journal of Social Issue*, 73(1).

John-Henderson, N. A., Rheinschmidt, M. L., Mendoza-Denton, R., & Francis, D. D. (2013). Performance and inflammation outcomes are predicted by different facets of SES under stereotype threat. *Social Psychological and Personality Science*, 5(3), 301–309. doi:10.1177/1948550613494226

Jost, J. T., & Hunyady, O. (2005). Antecedents and consequences of system-justifying ideologies. *Current Directions in Psychological Science*, 14, 260–265. doi:10.1111/j.0963-7214.2005.00377.x

Jury, M., Smeding, A., Court, M., & Darnon, C. (2015). When first-generation students succeed at university: On the link between social class, academic performance, and performance-avoidance goals. *Contemporary Educational Psychology*, 41, 25–36. doi:10.1016/j.cedpsych.2014.11.001

Jury, M., Smeding, A., & Darnon, C. (2015). First-generation students' underperformance at university: The impact of the function of selection. *Frontiers in Psychology*, 6, 710. doi:10.3389/fpsyg.2015.00710

Kudrna, L., Furnham, A., & Swami, V. (2010). The influence of social class salience on self-assessed intelligence. *Social Behavior and Personality: An International Journal*, 38(6), 859–964. doi:10.2224/sbp.2010.38.6.861

Langhout, R. D., Drake, P., & Rosselli, F. (2009). Classism in the university setting: Examining student antecedents and outcomes. *Journal of Diversity in Higher Education*, 2(3), 166–181. doi:10.1037/a0016209

Langhout, R. D., Rosselli, F., & Feinstein, J. (2007). Assessing classism in academic settings. *The Review of Higher Education*, 30(2), 145–184. doi:10.1353/rhe.2006.0073

Linnenbrink-Garcia, L., Tyson, D. F. & Patall, E. A. (2008). When are achievement goal orientations beneficial for academic achievement? *A closer look at main effects and moderating factors*. *International Review of Social Psychology*, 21(1), 19–70.

Lee, E. M., & Kramer, R. (2013). Out with the old, in with the new? Habitus and social mobility at selective colleges. *Sociology of Education*, 86(1), 18–35. doi:10.1177/0038040712445519 Lott, B. (2001). Low-income parents and the public schools. *Journal of Social Issues*, 57(2), 247–259. doi:10.1111/0022-4537.00211

Lott, B. (2012). The social psychology of class and classism. *American Psychologist*, 67, 650–658. doi:10.1037/a0029369

Markus, H. R., & Fiske, S. T. (2012). Introduction: A wide-angle on the psychology of social class. In S. T. Fiske & H. R. Markus (Eds.), *Facing social class: How societal rank influences interaction* (pp. 1–12). New-York: Russell Sage Foundation.

- Martin, G. L. (2015). "Always in my face": An exploration of social class consciousness, salience, and values. *Journal of College Student Development*, 56(19), 471–487.
- McLoyd, V. C. (1998). Socioeconomic disadvantage and child development. *American Psychologist*, 53(2), 185–204. doi:10.1037/0003-066X.53.2.185
- Merritt, C. R. (2008). First-generation college students: Then and now. *Human Architecture: Journal of the Sociology of Self-Knowledge*, 1(1), 45–52.
- Mijs, J. J. B. (2016). The unfulfillable promise of meritocracy: Three lessons and their implications for justice in education. *Social Justice Research*, 29(1), 14–34. doi:10.1007/s11211-014-0228-0
- Mourshed, M., Patel, J., & Suder, K. (2014). *Education to employment: Getting Europe's youth into work*. Washington DC, USA: McKinsey Center for Government. Retrieved from http://mckinseysociety.com/downloads/reports/Education/A4E2e_DOWNLOAD_BOOK_FINAL.pdf
- OECD. (2013). *PISA 2012 results: Excellence through equity: Giving every student the chance to succeed* (Volume II). Paris, France: OECD Publishing. doi:10.1787/9789264201132-e OECD. (2014). *Education at a glance: OECD indicators* Paris, France: OECD Publishing. doi:10.1787/eag-2014-en
- rbe, M. P. (2004). Negotiating multiple identities within multiple frames: An analysis of first-generation college students. *Communication Education*, 53(2), 131–149. doi:10.1080/03634520410001682401
- Ostrove, J. M., & Long, S. M. (2007). Social class and belonging: Implications for college adjustment. *The Review of Higher Education*, 30(4), 363–389. doi:10.1353/rhe.2007.0028
- Padgett, R. D., Johnson, M. P., & Pascarella, E. T. (2012). First-generation undergraduate students and the impacts of the first year of college: Additional evidence. *Journal of College Student Development*, 53(2), 243–266. doi:10.1353/csd.2012.0032
- Pascarella, E. T., Wolniak, G. C., Pierson, C. T., & Terenzini, P. T. (2003). Experiences and outcomes of first-generation students in community colleges. *Journal of College Student Development*, 44(3), 420–429. doi:10.1353/csd.2003.0030
- Pennington, C. R., Heim, D., Levy, A. R., & Larkin, D. T. (2016). Twenty years of stereotype threat research: A review of psychological mediators. *PLoS ONE*, 11, e0146487. doi:10.1371/journal.pone.0146487
- Pittman, L. D., & Richmond, A. (2007). Academic and psychological functioning in late adolescence: The importance of school belonging. *The Journal of Experimental Education*, 75(4), 270–290. doi:10.3200/JEXE.75.4.270-292
- Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, 67, 741–763. doi: 10.1037/0022-3514.67.4.741
- Ramos-Sánchez, L., & Nichols, L. (2007). Self-efficacy of first-generation and non-first-generation college students: The relationship with academic performance and college adjustment. *Journal of College Counseling*, 10, 6–18. doi:10.1002/j.2161-1882.2007.tb00002.x
- Reay, D., Crozier, G., & Clayton, J. (2009). "Strangers in paradise"? Working-class students in elite universities. *Sociology*, 43(6), 1103–1121. doi:10.1177/0038038509345700
- Reay, D., Crozier, G., & Clayton, J. (2010). "Fitting in" or "standing out": Working-class students in UK higher education. *British Educational Research Journal*, 36(1), 107–124. doi:10.1080/01411920902878925

Regner, I., Steele, J. R., & Huguet, P. (2014). Stereotype threat in children: Past and present. *International Review of Social Psychology (Special issue)*, 27, 5–12.

Rubin, M. (2012). Social class differences in social integration among students in higher education: A meta-analysis and recommendations for future research. *Journal of Diversity in Higher Education*, 5(1), 22–38. doi:10.1037/a0026162

Sanders, M. R., & Mahalingam, R. (2012). Under the radar: The role of invisible discourse in understanding class-based privilege. *Journal of Social Issues*, 68(1), 112–127. doi:10.1111/j.1540-4560.2011.01739.x

Scarpetta, S., Sonnet, A., & Manfredi, T. (2010). Rising youth unemployment during the crisis: How to prevent negative long-term consequences on a generation? OECD Social, Employment and Migration Working Papers 106.

Sidanius, J., & Pratto, F. (1999). *Social dominance: An intergroup theory of social hierarchy and oppression*. New York: Cambridge University Press

Sirin, S. R. (2005). Socioeconomic status and academic achievement: A meta-analytic review of research. *Review of Educational Research*, 75(3), 417–453. doi:10.3102/00346543075003417

Smeding, A., Darnon, C., Souchal, C., Toczec-Capelle, M.-C., & Butera, F. (2013). Reducing the socio-economic status achievement gap at university by promoting mastery-oriented assessment. *PLoS ONE*, 8(8), e71678. doi:10.1371/journal.pone.0071678

Sommet, N., Quiamzade, A., Jury, M. M., & Mugny, G. (2015). The student-institution fit at university: Interactive effects of academic competition and social class on achievement goals. *Frontiers in Psychology*, 6, 1–11. doi:10.3389/fpsyg.2015.00769

Son Hing, L. S., Bobocel, D. R., Zanna, M. P., Garcia, D. M., Gee, S. S., & Oraziotti, K. (2011). The merit of meritocracy. *Journal of Personality and Social Psychology*, 101, 433–450. doi:10.1037/a0024618

Soria, K. M., & Stebleton, M. J. (2013). Social capital, academic engagement, and sense of belonging among working-class college students. *College Student Affairs Journal*, 31(2), 139–153. Spencer, B., & Castano, E. (2007). Social class is dead. Long live social class! Stereotype threat among low socioeconomic status individuals. *Social Justice Research*, 20, 418–432. doi:10.1007/s11211-007-0047-7

Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology*, 35(1), 4–28. doi:10.1006/jesp.1998.1373

Spiegler, T., & Bednarek, A. (2013). First-generation students: What we ask, what we know and what it means: An international review of the state of research. *International Studies in Sociology of Education*, 23(4), 318–337. doi:10.1080/09620214.2013.815441

Stebleton, M. J., & Soria, K. M. (2012). Breaking down barriers: Academic obstacles of first-generation students at research universities. *The Learning and Assistance Review*, 17(2), 7–19.

Stebleton, M. J., Soria, K. M., & Huesman, R. L. (2014). First-generation students' sense of belonging, mental health, and use of counseling services at public research universities. *Journal of College Counseling*, 17(1), 6–20. doi:10.1002/j.2161-1882.2014.00044.x

Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, 69(5), 797–811. doi:10.1037/0022-3514.69.5.797

- Stephens, N. M., Fryberg, S. A., Markus, H. R., Johnson, C. S., & Covarrubias, R. (2012). Unseen disadvantage: How American universities' focus on independence undermines the academic performance of first-generation college students. *Journal of Personality and Social Psychology*, 102(6), 1178–1197. doi:10.1037/a0027143
- Stephens, N. M., Hamedani, M. G., & Destin, M. (2014). Closing the social-class achievement gap: A difference-education intervention improves first-generation students' academic performance and all students' college transition. *Psychological Science*, 25(4), 943–953. doi:10.1177/0956797613518349
- Stephens, N. M., Markus, H. R., & Fryberg, S. A. (2012). Social class disparities in health and education: Reducing inequality by applying a sociocultural self model of behavior. *Psychological Review*, 119(4), 723–744. doi:10.1037/a0029028
- Stephens, N. M., Markus, H. R., & Phillips, L. T. (2014). Social class culture cycles: How three gateway contexts shape selves and fuel inequality. *Annual Review of Psychology*, 65, 611–634. doi:10.1146/annurev-psych-010213-115143
- Stephens, N. M., Townsend, S. S. M., Hamedani, M. G., Destin, M., & Manzo, V. (2015). A difference-education intervention equips first-generation college students to thrive in the face of stressful college situations. *Psychological Science*, 26(10), 1556–1566. doi:10.1177/0956797615593501
- Stephens, N. M., Townsend, S. S. M., Markus, H. R., & Phillips, L. T. (2012). A cultural mismatch: Independent cultural norms produce greater increases in cortisol and more negative emotions among first-generation college students. *Journal of Experimental Social Psychology*, 48(6), 1389–1393. doi:10.1016/j.jesp.2012.07.008
- Steptoe, A., Tsuda, A., Tanaka, Y., & Wardle, J. (2007). Depressive symptoms, socio-economic background, sense of control, and cultural factors in university students from 23 countries. *International Journal of Behavioral Medicine*, 14(2), 97–107. doi:10.1007/BF03004175
- Sy, S. R., Fong, K., Carter, R., Boehme, J., & Alpert, A. (2011). Parent support and stress among first-generation and continuing-generation female students during the transition to college. *Journal of College Student Retention: Research, Theory and Practice*, 13(3), 383–398. doi: 10.2190/CS.13.3.g
- Tibbets, Y., Harackiewicz, J. M., Canning, E. A., Boston, J. S., Priniski, S. J., & Hyde, J. S. (2016). Affirming independence: Exploring mechanisms underlying a values affirmation intervention for first-generation students. *Journal of Personality and Social Psychology*, 110(5), 635–659. doi:10.1037/pspa0000049
- Tong, Y., & Song, S. (2004). A study on general self-efficacy and subjective well-being of low-SES college students in a Chinese university. *College Student Journal*, 38(4), 637–642.
- Tym, C., McMillion, R., Barone, S., & Webster, J. (2004). *First-generation college students: A literature review*. Round Rock, TX: Texas Guaranteed Student Loan Corporation. Retrieved from http://www.tgslc.org/pdf/first_generation.pdf
- U.S. Bureau of Labor Statistics. (2012). The recession of 2007–2009. Retrieved from: <http://www.bls.gov/spotlight/2012/recession/>
- Van Yperen, N. W., Blaga, M., & Postmes, T. (2014). A meta-analysis of self-reported achievement goals and nonself-report performance across three achievement domains (work, sports, and education). *PloS One*, 9(4), e93594. doi:10.1371/journal.pone.0093594
- Venus Moschetti, R., & Hudley, C. (2015). Social capital and academic motivation among first-generation community college students. *Community College Journal of Research and Practice*, 39(3), 235–251. doi:10.1080/10668926.2013.819304

Volpato, C., Andrighetto, L., & Baldissarri, C. (2017). The stigma of “dirty work”: Stereotypes and dehumanization of low-status workers. *Journal of Social Issues*, 73(1).

Walpole, M. (2003). Socioeconomic status and college: How SES affects college experiences and outcomes. *The Review of Higher Education*, 27(1), 45–73. doi:10.1353/rhe.2003.0044

Wang, C. D. C., & Castañeda-Sound, C. (2008). The role of generational status, self-esteem, academic self-efficacy, and perceived social support in college students’ psychological well-being. *Journal of College Counseling*, 11, 101–118. doi:10.1002/j.2161-1882.2008.tb00028.x

White House Report. (2014). Increasing college opportunity for low-income students: Promising models and a call to action. (Downloaded June 30, 2016 from http://www.whitehouse.gov/sites/default/files/docs/white_house_report_on_increasing_college_opportunity_for_low-income_students_1-16-2014_final.pdf)

Yeager, D. S., Walton, G. M., Brady, S. T., Akcinar, E. N., Paunesku, D., Keane, L., . . . Dweck, C. S. (2016). Teaching a lay theory before college narrows achievement gaps at scale. *Proceedings of the National Academy of Sciences of the United States of America*, 113, E3341–E3348. doi:10.1073/pnas.1524360113.