# Not just any path: Implications of identity-based motivation for disparities in school outcomes

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### ABSTRACT

Low-income and minority children aspire to school success and expect to attend college. These aspirations and expectations matter – predicting college attendance and graduation when present and failure to attend college otherwise. But aspiring to college does not necessarily result in relevant behavior; many children with high aspirations do not take sufficient action to work toward their school goals. This paper uses identity-based motivation theory (IBM, Oyserman, 2007, 2009a) to predict that school-focused expectations and aspirations predict action if at the moment of judgment, they are accessible (come to mind) and feel relevant. Relevance is operationalized in three ways. (1) Feeling congruent with important social identities (e.g., race-ethnicity, social class), (2) feeling connected with relevant behavioral strategies (studying, asking questions), and (3) providing an interpretation of difficulties along the way as implying task importance, not impossibility. Family assets and child savings are likely to influence each element of identity relevance.

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"Would you tell me, please, which way I ought to go from here?" asked Alice

"That depends a good deal on where you want to get to," said the Cat.

"I don't much care where–" said Alice.

"Then it doesn't matter which way you go," said the Cat.

"–so long as I get SOMEWHERE," Alice added as an explanation.

"Oh, you're sure to do that," said the Cat, "if you only walk long enough."

(Alice's Adventures in Wonderland, Chapter 6)

## 1. Introduction

As the Cat so succinctly explained to Alice, if one does not know where one is going, any path will do. Of course knowing where one is going is often not a matter of physical destination. Instead, people use travel along a path as a metaphor, where one is going or where one will end up are ways of describing one's imagined, but possible, future, including both positive and negative aspects of one's possible future self, the future self who is a high school graduate, on the way to college, or a high school dropout, homeless, or a struggling single mother. In that sense, wondering which way one ought to go is part of wondering who one will become and figuring out the path implies that there is a way to get there from here. If the future is unknowable, any current action might be the way to go. Having an idea of who or what one wants to become or avoid becoming – how one wants to 'end up' is assumed to be essential in making plans and staying motivated. In that sense one's possible future self is the destination and

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the path is the steps one's takes to increase the chance of getting there.

This paper addresses questions related to this conceptualization of one's future as a 'destination' that can be reached via certain paths and not others. First, do children, including low-income and minority children, have ideas about how they want to end up? Second, do these ideas involve school? Third, when do these ideas about the future matter, influencing children's academic outcomes. And, for all of these questions, what is the role of economic assets in both content of future self-images and in developing and maintaining particular paths to children's future self-images?

To address these questions, a targeted review of the literature is presented using identity-based motivation theory to organize predictions, review results of relevant experiments, and highlight gaps for future research. As will be demonstrated, identity-based motivation theory ties together and synthesizes seemingly disparate findings and makes specific predictions about when and why assets matter. To set the stage in Section 2, I provide an overview of educational attainment in the U.S. and known associations between educational attainment, income and assets.[1]

## 2. U.S. high school and college graduation

American parents have high educational aspirations and expectations[2] for their children even if their own

educational and economic attainments are low (Entwisle, Alexander, & Olson, 2005; Kim, Sherraden, & Clancy, 2012; Madeira, 2009). Large-scale longitudinal analysis of entering first graders in Baltimore demonstrate that parental aspirations and expectations remain high and are not initially influenced by child school performance, especially among low-income parents (Entwisle et al., 2005). However, parental aspirations and expectations are associated with child outcomes and seem to matter at least in part by influencing children's imagined future identities – whether children imagine that they might or could attain all 'A' grades, be college graduates, and so on (for a review, Wildhagen, 2009). The effect of parental educational visions for their children is still apparent when their children become young adults, predicting return to school among dropouts (Sacker & Schoon, 2007).

### 2.1. Educational attainment matters

Societies with higher educational attainment have higher economic growth; individuals with higher educational attainment have better lives (Gylfason, 2001). Current estimates are that in the U.S., twenty-something year olds who are graduates of four-year colleges earn 96% more than same aged high school dropouts, 53% more than high school graduates, and 28% more than associate degree holders (25–34 year olds, National Center for Education Statistics, 2010). Parental education is likely to make life easier for their children. Women who have not gone to college are more likely to be single mothers than to be married when they give birth; the reverse is true for women with college degrees; 51% of births to women who did not attend college are to single mothers while only 8%

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[1] Throughout I move between national survey-based results, in this case providing percentages, and smaller studies and experiments, in this case simply stating if effects are significant. The reason for this difference in presentation of results is that percentages reflect (or are hoped to reflect) national and representative outcomes. Experiments do not typically involve nationally representative samples; the point is not to describe reality as it exists but rather to predict the size of an experimental manipulation. Smaller studies which are not experiments but also not nationally representative samples are treated in the same way since focus is on significant differences between groups and so here too percentages are not reported. By using both survey data to describe and experimental data to highlight potential underlying processes, a more complete picture of how economic resources may matter can be told.

[2] Researchers find it useful to distinguish between aspirations and expectations, with an aspiration involving hopes and dreams (e.g., 'if you could be anything at all, what would you most hope and want to be') and an expectation involving subjective estimation of what is actually possible (e.g., 'if you had to bet money on it, what will you be'). Logically, hopes will be higher than expectations since expectations imply that one could really do it and hopes that one would want it to transpire. Another related way that the term expectation is used is as a prediction of competence – akin to how the term efficacy is used. Expectancy-value theories (e.g., Wigfield & Eccles, 2000) predict that people will take action to attain valued outcomes if they expect that they have the skills to attain the valued outcomes. In my own research, I have focused explicitly on expectations rather than aspirations with the assumption that expectations are more likely to be linked to behavior. Following this logical distinction, the way that data on aspirations and expectations are collected in survey research is typically to ask children and their parents how far they would ideally like to go in school and how far they realistically expect to go in school. The logical pattern of aspiration being higher than expectations is typically found with aspirations 10–15% higher than expectations (Elliott, 2009; Madeira, 2009). This pattern generally holds for low-income students as well (Kirk et al., 2012). However the pattern of relationship between the two questions suggests that children and parents do not distinguish between the aspiration and

expectation questions as researchers intend for them to. First, responses are *highly correlated* even for low-income children and their parents (Madeira, 2009) and second, *expectations sometimes exceed aspirations*, a logical inconsistency (Boxer, Goldstein, DeLorenzo, Savoy, & Mercado, 2011). This means that what respondents are telling us about aspirations and expectations is not as nuanced as what we as researchers had hoped to learn. There are a number of reasons this may be the case. First, temporal distance, college is a distal goal and parents and students may focus on how much they value the outcome rather than estimate the obstacles along the way (Liberman & Trope, 2008). This would result in expectations being nearly as high as aspirations, especially for respondents without direct experience of the process of getting into and graduating college. Second, self-serving biases, the questions themselves may be threatening to low income and minority students and after threat there is an increased tendency to restore positive emotional state by seeing oneself in a positive light (Roese & Olson, 2007). Third, social desirability, responses to both questions may be influenced by knowledge that college is valued in society and failing to say that one expects and wants to go may be viewed negatively. Fourth, positivity bias, people tend to believe that their chances of attaining positive outcomes are higher than warranted (Mezulis, Abramson, Hyde, & Hankin, 2004). Fifth, structure of typical questionnaires, using a closed-ended response format increases efficiency of data collection but systematically shifts responses (Schwarz & Oyserman, 2001). All of these disparate factors converge in predicting both that expectations will be as high as aspirations, and that aspirations will be high. Given that, many participants, particularly low income and minority participants may be providing essentially the same response to the 'expectation' and 'aspiration' questions. Therefore, in the current paper, I report responses to survey data from single item responses to expectation and aspiration questions interchangeably as imperfect measures of desired future possible futures. In reporting studies which collect more nuanced, open-ended data, I report more specifically what was found.

of births to women who graduated college are to single mothers (all comparisons are for white mothers in their 20s and 30s, DeParle & Tavernise, 2012). Compared to high school graduates, American high school dropouts earn less ($130,000 less over their lifetimes) and cost society more in lost tax revenues and increased expenditures ($200,000 more over their lifetime) (Building A Grad Nation, 2012; Levin, Belfield, Muenning, & Rouse, 2007). The positive consequences of education are magnified as wage inequality increases as it has in the United States since the 1970s (Acemoglu & Pischke, 2001). This implies that everyone should aspire to high educational attainment because education is the path to a better future.

## 2.2. Rates of high school and college graduation

However, American graduation rates are low and declining relative to other developed nations, the United States has dropped to 14th place for college and 10th place for high school graduation and is the only developed nation in which the high school graduation rate was higher for the prior generation (now aged 55–64) than for the current generation (OECD, 2011). Currently less than a third of young American adults are college graduates, only 75% are high school graduates and high school graduation varies widely across states from a low of 51.3% in Nevada to a high of 89.6% in Wisconsin (percentages are percent of 9th graders who graduate high school in four years, Building A Grad Nation, 2012; Bureau of Labor Statistics, 2010; National Center for Education Statistics, 2010, 2011). This implies that the current generation of Americans is not well-positioned on the educational path to their future success.

Position on the educational path to future success is worse for low-income and minority Americans; almost half of whom do not graduate from high school on time (Orfield, Losen, Wald, & Swanson, 2004). Having finished high school, students from poor families are less likely to graduate college than students from non-poor families (Jackson, 2010). Economic resource differences drive much of the racial-ethnic attainment gap, controlling for other factors, minority and white students are equally likely to be enrolled in a college 2- or 4-year at age 22 (Entwisle et al., 2005). Since most births in the United States are to minority families (Tavernise, 2012), policies targeting the aspiration–attainment gap among these students are especially needed. To understand what a policy relevant to each of these trends might entail, it is necessary to understand both how socioeconomic factors are associated with educational expectations, aspirations and outcomes and what processes causally predict how these factors influence children's school-focused outcomes. Each is addressed next.

## 2.3. Family resources (income, assets) and child educational outcomes

Family poverty, income and employment are all associated with child educational outcomes even though the underlying process is not yet clear (Duncan, Yueng, Brooks-Gunn, & Smith, 1998; Violato, Petrou, Gray, & Redshaw, 2011). Effects occur at both ends of the economic spectrum. Children from families at the bottom of the income spectrum are at higher risk of poor verbal achievement and school failure and are twice as likely to dropout of high school as children from non-poor families (Duncan & Brooks-Gunn, 2000). Higher family economic resources (income, assets) are associated with better child educational outcomes – better test performance, higher likelihood of completing high school and of entering and completing college (Entwisle, Alexander, & Olson, 2005; Huang, Guo, Kim, & Sherraden, 2010; Kim & Sherraden, 2011; Loke & Sacco, 2011).

Of course parent education, parenting style, traits and characteristics might influence both their economic outcomes and their children's educational outcomes (Mayer, 1997). Indeed, they do; parent education, traits and style have all been associated with their children's educational outcomes (e.g., for reviews see, Davis-Kean, 2005; Entwisle et al., 2005; Hill & Duncan, 1987; Mayer, 1997; Wildhagen, 2009) and with parent economic outcomes (Mayer, 1997). However, there is some evidence that at least for economically deprived families, economic resources have separable effects. Statistical and methodological strategies to control for other parent factors demonstrate negative effects of economic resource deprivation on children's test scores (Dahl & Lochner, 2011), likelihood of college entry (Acemoglu & Pischke, 2001), high school and college completion rates (Hill & Duncan, 1987).

Economic effects are not linear. For example, home ownership (Boyle, Georgiades, Racine, & Mustard, 2007) and extra income (Acemoglu & Pischke, 2001; Dahl & Lochner, 2011) each have a small positive association with children's later educational attainments but effects differ by economic circumstance. The positive effect of home ownership holds if the home is in a neighborhood of above average affluence (Boyle et al., 2007). In contrast, the influence of extra income is larger at the bottom of the distribution than at the top (Acemoglu & Pischke, 2001; Dahl & Lochner, 2011). Results of this type imply that the positive association of high income and assets and educational attainment are due to somewhat different processes than the negative association of poverty (very low income and assets) on educational attainment. In this paper, I focus on how low economic resources might influence children's academic outcomes by influencing their identity-based motivational processes. That is, how children imagine their future, whether they see relevant strategies (e.g., studying, asking questions in class) as congruent with who they are, and whether they interpret difficulties along the way as meaning that succeeding in school is an important, rather than an impossible goal.

## 3. Do children imagine their future self?

Possible identities are the future-oriented aspects of self-concept, both positive identities that one expects to become and negative identities that one wants to avoid becoming (for a review, Oyserman & James, 2011). They are images of the self already in a future state-the "clever" self who passed the algebra test, the "unhealthy" self who failed to lose weight or quit smoking, and the "off-track"

self who became pregnant (Oyserman & Markus, 1990a,b). Individuals possess multiple positive and negative possible identities which are often linked with the social roles and identities relevant to current life tasks such as being a student, a parent, or a life partner (Cross & Markus, 1991; Oyserman & Fryberg, 2006). Possible identities also differ along a continuum of detail; some are filled with vivid detail of how, when, and in what ways they will be attained, others are much simpler, lacking detail and strategies for their attainment.

The idea of a future self that differs from the current one is accessible to children at a relatively early age. Children understand the idea of tomorrow by age three and by age four or five children can imagine that their future self might have different desires than their current self (Atance & Metzhoff, 2005). A growing literature demonstrates that in elementary school, children can describe both their current and future self, what they are like now and what they expect to become in the near (next year) and far (as an adult) future (for reviews, Oyserman, 2001; Oyserman, Elmore, & Smith, 2012; Oyserman & James, 2011).

Typically in these studies, children are asked an open-ended question about what they expect to be like and what they are afraid they may be like in the coming year ("Each of us has an image or picture what we want to be like and what we want to avoid being like in the future. Think about next year; imagine what you'll be doing next year. What would you expect to be like next year and what are you doing now to be that way?... Now think a minute about ways you would not want to be like next year, things you are concerned about or want avoid being like. What would you want to avoid being like next year and what are you doing now to avoid being that way?"). Responses are content coded and, across studies, the most common categories of expected self-description involve school with social relationships coming in second place (fears are more diverse). Children's school-focused next year 'possible identities' are typically brief and concrete ('I expect to be ...getting good grades', '...passing the 8th grade'), avoiding failing in school ('I want to avoid...get-*tingfailinggrades*', '\ldots-

...still being in the 8th grade'). When asked about their future self as adults, they describe job and career-focused possible future identities which themselves may be education-dependent or not (for a review of studies describing content of future identities, Oyserman & James, 2008, 2011).

### 3.1. Do low-income and minority children have school-focused future identities?

Given the association of low socioeconomic status and low educational attainment, the question arises if the examples children see in their everyday lives at school and in their neighborhoods constrain their possible future identities (Oyserman & Markus, 1993). After all, children living in neighborhoods with high poverty and unemployment rates are unlikely to encounter many people with high education, income or occupational prestige (Adelman & Gocker, 2007; Eggers & Massey, 1992; Krivo, Peterson, Rizzo, & Reynolds, 1998; Wilson, 1996) and African

American and Latino children are disproportionately likely to live in such neighborhoods (Wallace & Muroff, 2002). It is clear that seemingly small features of children's immediate context matters, for example classroom composition influences school-focused aspirations, with aspirations of boys and girls rising in years with more girls in the classroom (Sund, 2009). Indeed, a large literature exists positing that low socioeconomic status produces low attainment via identity processes (e.g., Bourdieu, 1984; Dumais, 2002; Eckert, 1989; Finn & Rock, 1997; Kao & Thompson, 2003; Voelkl, 1996, 1997). Since people like oneself often fail to finish high school and rarely finish college, such school successes may come to feel identity incongruent and as a result, children of low-income parents may 'select out' of school, focusing on identities that do not involve school.

However, the evidence is not so clear cut. Indeed individual studies (e.g., Massey, Gebhardt, & Garnefski, 2008) and reviews of research on the content of low-income and minority children's possible future identities note that school-focused future identities are common for these children (Oyserman, 2007; Oyserman & Fryberg, 2006). When asked what they expect to be like in the coming year or in the farther future, low-income and minority children talk about school – finishing the current grade, getting to college. Even though they are attending schools in districts in which most children do not graduate from high school on time, when asked directly, most report that they will go to college (Kao & Thompson, 2003; Oyserman & Destin, 2010). When asked directly how far they expect or aspire to go in school, the most common answer is 'college,' with over 90% expecting to go to college (Oyserman & Destin, 2010).

Survey-based research on educational attainment commonly includes two questions. Children and their parents are asked how far they *expect* to go in school and how far they *aspire* to go in school. In response, most choose the highest educational attainments. Thus, most (80%) eighth graders expect that they will attend college, regardless of their current academic success or whether they are taking college-preparatory coursework (Mello, 2009; Trusty, 2000). Estimates vary by sample, but are always very high, reaching nearly 100% in some studies (Boxer et al., 2011).

Across studies, expectations and aspirations are always higher than actual U.S. college graduation rates of under a third. Thus the responses low-income and minority children give do not imply that they have low educational aspirations. For example, analyses of the child responses from Panel Study of Income Dynamics show that 72% of children living in poor families aspire to go to college (Elliott, 2009). State-level data show similar patterns, with 67% of children in free lunch programs (Kansas GEAR-UP data, Kirk, Lewis, Nilsen, & Colvin, 2011) and 43% of children in foster care aspiring to college (Kansas GEAR-UP data, Kirk et al., 2011). High aspirations are not limited to whites – indeed, controlling for other factors, African American youth report higher educational attainment expectations than white youth (Kao & Tienda, 1998; Mello, 2009; Wildhagen, 2009). High aspirations are not limited to Americans, even in developing countries such as Ghana,

76% of children in compulsory school aspire to college (Chowa, Masa, Wretman, & Ansong, 2012).

### 3.2. Do school-focused future identities improve school attainment?

Given that high aspirations and expectations are so common, one might wonder if they matter. Analyses of survey data demonstrate that they do. Children who expect to go to college are significantly more likely to eventually become college students than those who do not (Beal & Crockett, 2010; Elliott, 2009; Ou & Reynolds, 2008; Uno, Mortimer, Kim, & Vuolo, 2010).

Research on this issue also includes studies that use more nuanced measures, content coding how children respond when asked what they expect to be like in the coming year and what they are concerned they may become. In these studies of expected and feared 'possible selves' having school-focused future identities matters; especially if these identities are linked to strategies to attain them. That is, controlling for their prior grades, children who say they expect to 'be in the eighth grade' and are concerned that they may 'be expelled' or 'fall off the honor roll' have significantly better end of year grades (Oyserman, Bybee & Terry, 2006; Oyserman, Bybee, Terry & Hart-Johnson, 2004). They are also significantly less likely to self-report engaging in delinquent activities (Oyserman & Saltz, 1993). Even among high performing African American students, having school-focused identities is associated with later educational attainment and occupational prestige (Cunningham, Corprew, & Becker, 2009; Mello, 2009).

Effects are not only correlational, experimental manipulation of the salience of school achievement as a possible future identity significantly influences students grade point average and change in their grade point average over time (from 8th to 9th grade) (Oyserman, Bybee, et al., 2006). Children randomly assigned to the seven-week 12-class session School-to-Jobs experimental intervention did not differ from children in the control group in their possible self-descriptions or school attainments prior to the intervention. By the spring after the intervention however, intervention youth were more focused on school; when asked about their next year possible self, intervention youth were more likely to write about expecting to do well in school and about being concerned that they might not. They also generated more strategies to attain these school-focused possible identities.

Intervention youth were also doing better in school and the effects of the intervention on academic outcomes were mediated by the above described changes in their possible identities and strategies (Oyserman, Bybee, et al., 2006). At the end of the first year, more than twice as many control youths (10.7%) as intervention youths (4.3%) were retained (kept back in 8th grade), and they had more unexcused absences (effect was large at $d = .80$). By the end of the second year, youth in the intervention were spending on average 2.51 h a week on homework, nearly an hour more per week than control youth who averaged 1.57 h per week. Each semester intervention youth averaged 2.25 more days in school than control youth, continuing the large intervention effect on attendance found at the end of the first year. With regard to grade point average (GPA) in core classes as assessed by school records, within-time models comparing intervention and control groups at each grading period showed that a significant difference in GPA emerged at the 3rd quarter, two quarters following the intervention and GPA between groups continued to diverge over time. By the end of the 9th grade, estimated average GPA was 1.64 (out of 4.00) for intervention youth, compared with 1.36 for control group youth.

To test for mediation, Oyserman, Bybee, et al. (2006) used latent structural equation modeling, employing standard methods to develop the measurement model defining the latent constructs, to assess overall model fit, and to calculate and test indirect effects. The intervention had a direct effect on the possible identity variables. The possible identity variables significantly mediated the direct effect of the intervention on homework, in-class behavior, grades, and test scores. These results are important for a number of reasons. First, they demonstrate the posited positive effect of seeing school success as a possible future identity on academic outcomes. Second, they show that children's possible future identities are susceptible to influence from relatively brief intervention (12 classroom periods over a 7-week period from September to November). Third, because children were randomly assigned to the intervention or control (school as usual) group, effects cannot be attributed to other factors.

### 3.3. How and under what circumstances do school-focused identities matter?

Longitudinal analyses of survey data show that only about half of the students who expect to graduate college do so. In that sense, it seems that school-focused future identities are necessary but not sufficient. Consider for example, longitudinal analyses of a community-wide cohort of students, 74% of whom expected to go to a 4-year college (Uno et al., 2010). College completion was assessed when participants reached their late 20s. At that point, 43% of those with a college-bound future identity had finished college while 57% had not. However, virtually none of those who did not expect to go to college went (Uno et al., 2010). Other data suggest that low-income and minority students are particularly likely to experience a gap between their college-bound aspirations and their actual educational attainment (Schneider & Stevenson, 1999; Trusty, 2000).

Thus though almost all children have school-focused (college-bound) future identities, these future identities do not uniformly matter, motivating sustained engagement with school and persistence even when school tasks are difficult. Juxtaposing school-focused, college-bound, future identities with actual attainment raises the question of why aspired to identities differ so much from actual attainments. As outlined next, a number of possibilities have been raised.

One possibility is that low-income and minority students try but fail because they feel threatened by stereotypes about their academic ability (Steele, 1997). Another possibility is that they fail to act on their school-

focused identities because they believe they do not fit in school (Bourdieu, 1984) and thus misread cues and fail to use appropriate strategies (Bloom, 2007; Dumais, 2002). A third possibility is that aspirations aside, they are actually no longer engaged or identified with school (Altschul, Oyserman, & Bybee, 2006; Dumais, 2002; Osborne & Jones, 2011; Oyserman, Kemmelmeier, Fryberg, & Brosh, 2003). Alternatively, low-income and minority students would act on their school-focused identities if these identities consistently came to mind and were perceived as relevant to the current context (Oyserman, Terry & Bybee, 2002; for a review, Oyserman & Destin, 2010). This latter possibility implies that small contextual changes can leverage children's school-focused identities, reducing the gap between attainment and aspiration. Identity-based motivation theory (Oyserman, 2007, 2009a, 2009b) addresses this issue, as outlined next.

## 4. Identity-based motivation theory

Identity-based motivation (IBM) theory provides a way to make sense of how family and child economic resources (poverty, income, assets, savings) influence child academic attainments by influencing child behavior over time (Oyserman, 2007, 2009a, 2009b). IBM is a general model rooted in a situated-cognition perspective and was developed to understand motivational processes underlying the choices and outcomes of individuals who are racial-ethnic minorities and situated in low socioeconomic positions in society (Oyserman, 2007; Oyserman, Brickman, et al., 2006; Oyserman, Bybee, et al., 2006; Oyserman, Fryberg, & Yoder, 2007). As previously noted, the idea that race and socioeconomic factors might influence motivation by influencing how children think about themselves is common to a number of approaches (e.g., Bourdieu, 1984; Dumais, 2002; Eckert, 1989; Finn & Rock, 1997; Kao & Thompson, 2003; Voelkl, 1996, 1997). What is new and useful about the IBM approach is that it sheds light on dynamic identity processes and provides testable predictions about how and under which circumstances school-focused identities matter, improving school engagement and likelihood of success for low-income and minority children, as well as the circumstances in which they will not.

IBM theory predicts that people prefer to act in ways that fit their important identities, including racial-ethnic, gender, and social class-based identities, but that while these identities feel stable, they are highly situation sensitive. That is, identities are dynamically constructed and, while salient identities cue readiness to act and make meaning in identity congruent ways, what an identity means and therefore which strategies, scripts or norms are associated with it are also highly malleable. Situations which do not make school-focused identities accessible, imply that doing well in school is not a thing that people like oneself do, or make the future feel far or the path impossible to travel are unlikely to undermine effort and ultimately performance.

Returning to the initial metaphor of future identities as a destination with education as a path to get there, identity-based motivation theory helps clarify why it might be that having school-focused future identities and seeing education as the path to attaining these identities may not be sufficient to predict current action. Seeing education as the path may or may not imply that one needs to get going one one's homework. If college seems far away, one may not feel a need to get going on the path right now – one can always start later. Similarly, if the homework feels hard, and that difficulty is not interpreted as a reminder of the importance of one's goal, one may quit anyway, telling oneself, 'this homework is just too hard, I shouldn't waste any more time on it' All of these are predictions made by IBM theory.

Fig. 1 provides a simplified process model of the macro-micro interface involved in identity-based motivation. In the first panel are factors associated with resources including family poverty, parental income and assets, child savings, school and neighborhood factors. In panel two are the three elements of identity-based motivation (dynamic construction, action and procedural readiness, and interpretation of difficulties) which are operationalized in panel three. Dynamic construction is operationalized as which identities come to mind and what accessible identities mean. Action and procedural readiness is operationalized as how close the future feels, which cognitive procedures are accessible, and readiness to act. Interpretation of difficulties is operationalized as interpretation of difficulties as implying that the goal is important to attain or as implying that the goal is impossible to reach. Resources (panel one) are relevant to identity-based motivation (panel two) as because they both increase the likelihood that some identities (and not others) come to mind and frame what these identities are likely to mean in the moment (panel three). Accessible identities and the meaning ascribed to them cue readiness to act, they are the meaning-making lens through which other people are understood, and provide an interpretation of difficulty in thinking about and engaging in school-relevant actions. As will be described in the next section, these identity-based processes are predictive of action (studying, staying after class for help), engagement with and interpretation of interactions with teachers and school staff, and interpretation of difficulty in school as meaning that school-focused possible identities are impossible to attain or important to work on.

### 4.1. Identity-based motivation: dynamic construction of identity

Identities are nested in self-concepts, which make up part of the self's *reflexive capacity* to think, to be aware of one's thinking, and to take oneself as the object of thinking. Depending on the context, people are likely to structure the task of taking the self as the object of thinking differently. These structural differences are termed individualistic, relational, and collectivistic self-concepts (or mindsets) by cultural psychologists and social identity theorists (for more detailed review and discussion, see Oyserman, 2011; Oyserman, Elmore, & Smith, 2012).

While often studied cross-culturally, a large body of evidence demonstrates that even subtle situational cues are sufficient to make an individualistic, relational, or

Identity-Based Motivation Mediates Economic Context Effects on School Outcomes
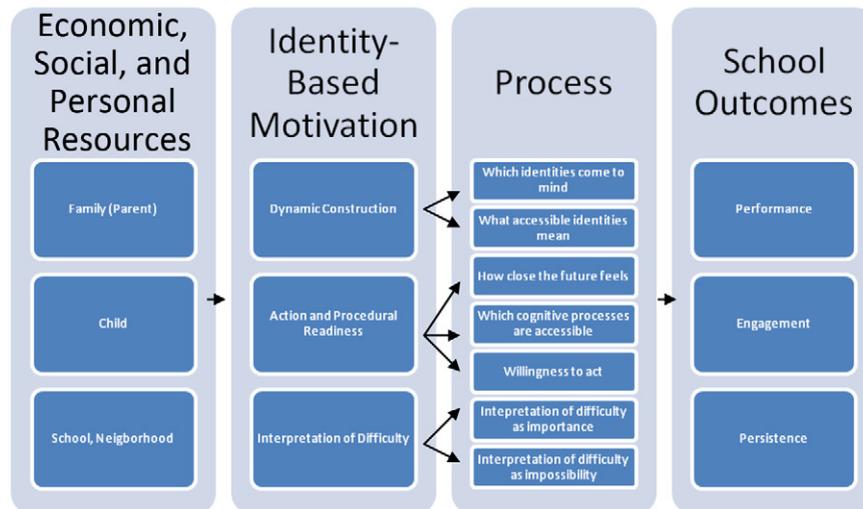


Fig. 1. Identity-based motivation mediates economic context effects on school outcomes.

collectivistic mindset accessible with consequences for identity content, cognitive procedures, and action. For example, just reading a paragraph and circling first person singular vs. plural pronouns or considering the ways one is similar vs. different to family and friends is enough to shift mindsets (see Oyserman, 2011; Oyserman et al., 2012). Consider the effect of pronouns. Before responding to other questions, participants in these studies are randomly assigned to read a paragraph which includes either first person singular pronouns (I, me, my) or first person plural pronouns (we, our, us) the content of the paragraph itself is not consequential (a day in the city, being at the beach, being in the countryside, being at a restaurant and so on). The instruction is simply to read the paragraph and circle (or click on) the personal pronouns. Condition influences, for the moment, how people describe themselves. After circling 'I', 'me' and 'my', people are more likely to describe themselves using personal identities – traits and unique characteristics. After circling 'we', 'our' or 'us', people are more likely to describe themselves using social roles, social relationships, and social group identities – including race-ethnicity, social class, and gender. Similar effects are found by randomly assigning people to consider either how they are different from their family and friends or how they are similar to their family and friends. Using Cohen's rule of thumb, effect sizes are small but significant (for a meta-analytic review see Oyserman & Lee, 2008).

These studies show that small shifts in what is made accessible in the situation influence whether people think of themselves as members of their racial-ethnic (or social class) group or as individuals with unique skills. Not only that, but these effects are automatic and do not require that people make a conscious choice as to how to think about themselves. That is, people are not aware that circling pronouns in a paragraph influences their self-descriptions and when told that that is what is being studied, typically assert that they were not influenced (Oyserman & Lee, 2008).

Identity-based motivation theory predicts that how one thinks about oneself (as an individual, as a group member) also influences which goals and strategies and which interpretation of difficulties in goal attainment come to mind in the context of school. The first prediction is that school-focused identities are dynamically constructed so that they may fit or not fit with other important social identities, depending on context. To begin to test this prediction, my colleagues and I focused on racial-ethnic identities of low-income minority students. We tested the prediction that whether a racial-ethnic identity influences behavior depends on whether it comes to mind and what it means at the moment of judgment.

In one study, 146 African American seventh and eighth grade students in a school in which 83% were receiving free or reduced lunch completed a novel math task (use the numbers 2, 3, and 7 to make the number 36, by adding, subtracting, multiplying or dividing) either before or after they answered open-ended questions about their racial-ethnic identity (Oyserman, Gant, & Ager, 1995). Children were asked what it means to them to be African American and then asked for examples from their everyday life. Responses were content-coded and factor analyzed yielding three factors, a positive sense of connection to the racial-ethnic group, an awareness of racism, and what was termed 'embedded achievement' the belief that academic attainment was both valued by and attainable by members of one's racial-ethnic group. The math task was described as a new task, not previously taught, and participants were to write down as many ways as they could of combining the numbers to solve the problem, using a new line for each attempt. Thirty blank lines were provided. Analyses used the number of attempts at solving the problem.

As predicted, the influence of accessible racial-ethnic identity on performance depended on what content came to mind. Children who described school-achievement as part of their racial-ethnic identity performed better when

racial-ethnic identity was brought to mind prior to the math task. The reverse was true for children who did not describe school-achievement as part of their racial-ethnic identity. Thus, identity mattered, but only if it was accessible and relevant to the task at hand (focused on school). Oyserman and colleagues (Oyserman, Kemmelmeier, Fryberg, & Brosh, 2003) replicated this finding in two follow-up experiments using the same novel math task with students from different racial-ethnic and national groups ($n$ = 65 American Indians, $n$ = 524 Palestinian Arab Israelis). Students were randomly assigned to do the math task before or after writing about their racial identity. Students randomly assigned to write about their identity before doing the math task who described their racial-ethnic identity in terms of school achievement outperformed other students. Thus, racial-ethnic identity has a positive effect on performance if it was accessible and relevant to the school task at hand.

In two follow-up experiments, Oyserman and colleagues addressed the question of whether the content of an accessible identity is in fact dynamically constructed in context. In one experiment, low-income Latino and African American children were presented a graph with information about income distribution as a way of subtly manipulating how children considered their future self (Destin & Oyserman, 2009). One half were randomly assigned a graph with income organized by educational attainment (no high school diploma, high school diploma, college). The other half were randomly assigned a graph with income organized by career which did not involve traditional educational attainment (top musicians, top athletes, top actors). Children in the educational attainment condition were led to consider the future as being dependent on educational attainment while children in the attainment without education condition were led to consider the future as independent of education. This mattered; children in the education-dependent condition were six times more likely to do extra credit homework than children led to consider their future as being independent of educational attainment.

In another experiment, low-income predominantly African American children were presented a graph with information about income or education distribution as a way of subtly manipulating how children considered themselves as male or female. One fourth of children were randomly assigned to see a graph of household income in their state, another fourth of children were randomly assigned to see a graph of high school graduation rates in their state. The other two fourths of children were also randomly assigned to see either a graph of income or a graph of high school graduation rates in their state. However, this group of children saw this information broken down by gender. Children in these gender conditions were led to consider either men or women as higher achievers (e.g., higher average earnings, more likely to graduate high school) as compared to children in the no-gender conditions in which gender was not brought to mind (Elmore & Oyserman, 2011). Children in the 'my gender achieves' conditions were more engaged with school, when asked what they expected to be like and what they were concerned they may be like in the coming year,

they were more likely to focus on school attainments and they worked harder on the novel math task previously described. Thus, in both of these latter studies, the content of a future identity brought to mind by contextual cues shifted depending on the cues. This is what is meant by dynamic construction.

### 4.2. Identity-based motivation: implications for action and procedural readiness

#### 4.2.1. Procedural readiness

Drawing on insights from cultural psychology, the identity-based motivation model predicts that salient identities will influence information processing style (Oyserman, Sorensen, Reber, & Chen, 2009). Specifically, when social identities such as racial-ethnic identities are salient, children are more likely to process information using connecting and integrating procedures. When personal identities such as becoming an 'A' student are salient, children are more likely to process information using separating and distinguishing procedures. Since a saliently accessible cognitive procedure may or may not be relevant to the school-task at hand, flexible attunement to context should improve school outcomes. This may be more likely when personal self-goals, like succeeding in school, feel congruent with social identities, like being African American, so that both separating and connecting cognitive procedures are accessible. However, disadvantaged contexts often fail to cue children to see school-success as identity-congruent, heightening need for structured intervention to create conducive contexts (Oyserman & Yoon, 2009).

#### 4.2.2. Action readiness

An accessible identity also carries with it readiness to act in identity-congruent ways (for a review, Oyserman, 2009a, 2009b). An accessible school-focused future identity should influence current behavior if one believes that current action is needed to move toward the future identity, but not otherwise. Indeed, while 90% of students in a sample of low income 8th graders expected to attend college, only about half wrote about career-focused future selves that depended on going to college, implying that there is no need to work on school work and indeed students who did not have education-dependent adult identities spent less time on homework and attained worse end of school year grades, controlling for their prior grades (Destin & Oyserman, 2010, Study 1).

A series of experiments then tested the proposition that accessible identities can cue action readiness by making the future-self feel close. Elementary, middle, and high school students were either asked how far their adult (career-focused) future-self felt to them or were randomly assigned to either consider their near future as an adult, their far future as an adult and results in these experimental conditions compared to children simply asked to consider their future as adults. Across studies, school children who imagined (or were asked to imagine) that their adult futures are near rather than far away worked harder in school tasks, whether what was assessed was the same novel math task used by Oyserman, Gant and

Ager (1995) or was teacher-provided schoolwork (Nurra & Oyserman, 2012).

These results may explain longitudinal analyses of the association between low-income children's college-bound identities and their current effort or grades, identities and action are not associated in elementary school but are in high school for the same children (Madeira, 2009). This pattern of results implies that low-income elementary school children erroneously see their future identity as a school-success as so far in the future that current successes and failures will not have consequences. Because the their future school-success identities seem so far they under-invest current effort, only to later learn that early successes and failures do matter (Madeira, 2009).

### 4.3. Identity-based motivation: implications for interpretation of difficulty

IBM theory predicts that people prefer to act in identity congruent ways, but that the effect of identity can be opaque because what an identity means, which strategies feel congruent with that identity and how difficulties along the way are interpreted are dynamically created in context (Oyserman, 2007, 2009a, 2009b; Oyserman et al., 2007). Thus, IBM focuses on the need to interpret experienced difficulty working on one's future identities and not just on the positive power of having future identities. IBM theory posits that working on any important future identity is difficult but that how experienced difficulty affects motivation depends on how it is understood. Specifically, motivation increases with experienced difficulty if difficulty is understood as meaning that the identity is important and decreases with experienced difficulty if difficulty is understood as meaning that the identity is impossible to attain (Oyserman, 2007, 2009a; Oyserman, Brickman, et al., 2006; Oyserman, Bybee, et al., 2006).

Sometimes working on one's school-focused future identities feels easy, but often this is not the case. Even imagining oneself doing what it takes – setting an earlier alarm, staying still to study more rather than turn to something else can feel difficult. How are these meta-cognitive experiences – the feeling of ease or difficulty accompanying thinking about one's school identities – to be interpreted? Identity-based motivation theory pre-dicts that either ease or difficulty can motivate sustained action depending on the accessible lay theory of what ease or difficulty mean. Consider difficulty. If working on one's school-focused identities is experienced as hard, does this mean that the goal is important ("no pain, no gain"), or does it mean that the goal is impossible to attain for people like oneself? IBM theory predicts that both interpretations of difficulty are possible and which comes to mind depends on which identity comes to mind and what it means in context. This paper opened with a summary of the educational disparities literature which convincingly shows both that low-income and minority group mem-bers are likely to have worse educational outcomes and also that they are more likely to experience contexts in which others like themselves do poorly. Growing up in these contexts makes success not only difficult but also seemingly impossible to attain. Therefore, we predict that

on the one hand low-income and minority individuals will be likely to interpret difficulties in attaining school-focused identities as meaning that these goals are impossible for people like themselves and on the other hand we predict that this interpretation is dynamically constructed and thus open to situational manipulation.

Two studies test this prediction with low-income minority children (Novin, Elmore, & Oyserman, submitted for publication). Low-income minority 4th–8th grade students enrolled in a remedial after school program were randomly assigned to one of two conditions. Their participation in the remedial program was acknowledged either with no further interpretation of their school difficulties or with the interpretation that they were enrolled in the remedial program because "school is important." Being provided this interpretation of difficulty mattered. Students provided the "school is important" interpretation of difficulty generated more school-focused identities when asked what they would be like in the coming year and they performed better at a novel math task (Novin et al., submitted for publication, Study 1).

Moreover, providing low-income minority children an interpretation of difficulty as meaning that succeeding was impossible for them was no worse than providing no interpretation at all, as demonstrated in a follow-up study. In this experiment, 7th and 8th grade low-income minority students were randomly assigned to one of three condi-tions. Students randomly assigned to the experimental groups were subtly provided an interpretation of their difficulty; those randomly assigned to the control group were not. Subtle interpretation of difficulty was cued by having experimental groups respond to a biased scale about schoolwork. Half responded to items reflecting the idea that when schoolwork is hard it means ones' efforts are best spent elsewhere. Half responded to items reflecting the idea that when schoolwork is hard it means that the task is important. All children were then given an increasingly difficult task. As task items became more difficult to solve, children performed worse unless they were subtly provided with an interpretation of difficulty as importance (Novin et al., submitted for publication, Study 2). Average effect size was $d = .40$, thus likely to matter for actual attainment.

### 5. What is the role of economic assets in children's school-focused future identities?

Children aspire (hope) and expect to attend college at higher rates if their parents earn higher income, have more wealth, are better educated, if they themselves have a savings account, and if they have earmarked savings from this account for college (Elliott, 2009). Controlling for other factors, children who expect to go to college and have savings of their own are more likely to actually attend college (Elliott, Chowa, & Loke, 2011). From the perspective of IBM theory, the underlying process in each case involves experiencing the future self as psychologically connected to the current self. Children with savings accounts are more likely to experience this connection because savings is a current action that benefits the future self. In the same vein, assets matter because they allow children to

experience everyday lives in which focus is on the future rather than on attaining sufficient funds to cover present needs. Although experimental evidence does not yet exist to test these predictions, the evidence that savings account mater is striking. Among children who expect to go to college, having a savings account increases the odds of actually attending a 4-year college by age 23 by six fold (Elliott & Beverly, 2011b). Effects are especially strong for children from lower income (below United States median of $50,000) families. In these families children who expect to go to college and apportion some or all of their own savings toward college are twice as likely to be attending or graduated from college in their mid-20s than those who did not (Elliott & Beverly, 2011a). The savings themselves are too small to actually fund college, but taking action now for a future self by saving for the future matters. Future research is needed to understand the effect. For example, the effect may be due to dynamic construction of identity as someone who is participating in the world beyond one's immediate neighborhood. Alternatively, the effect may be due to an increased sense that the future is near, resulting in more time spent on homework or other school activities, or it may be due to change in interpretation of difficulty (saving is hard but the future is important) which carries over to persistence in school tasks.

## 6. Conclusions

Having assets may make imagining a future easier and at the same time, imagining a future path may make savings more likely for children. Alternatively, saving money may provide a concretization of the idea that the present is connected to the future, that what one does now matters for the future self. Research has shown effects both of parental assets and of child expectations and adding one does not reduce the effect of the other implying that these are separate paths to college graduation (Zhan & Sherraden, 2003). It seems reasonable to speculate that poverty affects children's life histories not simply by providing fewer resources but perhaps more importantly by making life less secure and certain and outcomes less clearly linked to efforts (Violato et al., 2011, see also Ellis et al., 2012). In itself, lack of certainty, when not accompanied by a sense that one has the skills and abilities to succeed in attaining one's future goals, reduces salience of future (vs. current) possibilities, makes strategies for attaining future goals less appealing and increases the chances that difficulty will be interpreted as meaning that effort is hopeless. These are the core tenets of identity-based motivation theory.

Policies that allow families to save toward the future and that make it easier for children to save toward college at an early age are likely to improve children's academic outcomes if savings is considered as a current action taken toward a future, college-bound identity for a number of reasons. First, the act of saving now for a later college-bound self implies that it future is near enough that current action is needed. This should improve chances of children spending time on homework as well as their engagement in classroom activities. Second, the act of saving now for a later college-bound self is not easy but implies that the future college-bound self is an important goal. This should

improve chances of children persisting on difficult school tasks. Third, the act of saving now for a future college-bound self implies that people like oneself can get ahead, making strategies for persisting school more likely to come to mind.

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