

# A Case Study in Standardized Test Preparation

C. Malik Boykin – Brown University

## INTRODUCTION

In the fall of 2019, news outlets across the United States were flooded with stories about Kamilah Campbell, an African-American college hopeful from Miami Dade county (Hanna, 2019a; Jaschik, 2019a). Campbell's SAT scores were withheld by the college board amidst an investigation into her alleged prior knowledge of the test. This accusation imperiled her consideration for several of the scholarships and fellowships she applied for, as well as for her admission to her dream school – Florida State University. Months earlier, and in a similar fashion, Brendan Clare, a White male student athlete, was in the headlines for being accused of cheating by the ACT when the tests creators deemed that his score improvement from his previous test score was too high. Brendan's admission to Pennsylvania State University was jeopardized by the threat of cancellation of his scores (Jaschik, 2019b). In light of these recent national headlines, I deemed it timely and necessary to share personal insights gleaned from my own engagement with standardized testing. What follows is a hybrid personal essay that bolsters my own insights about standardized test scores with theories from the world of psychology, a world that my standardized test score opened up for me.

While I was never accused of cheating, I share with Kamilah and Brendan the experience of improving my standardized testing score to an eyebrow raising level contrasted against a previous performance estimate. Kamilah raised her SAT score a full 310 points on a test that is scored on a range between 400 and 1600, which is an improvement of more than 25% of the total 1200-point scoring range (College Board, 2019a; Hanna, 2019a). No matter where you apply a 310-point increase, even if you applied half of it to the verbal section and half to the quantitative section, this improvement would represent an increase of more than a full standard deviation (College Board, 2019a). On the ACT exam, Brendan Clare scored a full 5 points higher, accounting for an increase of one standard deviation as well as a 14% improvement along the scoring range from

0-36 (NCES, 2010). In comparison, I sat for a normed equivalent GRE practice test at a commercial test prep center adjacent to the institution where I earned my bachelor's degree in the summer of 2010. That fall, after 102 days of diligent and emotionally draining test preparation, I scored a full 550 points higher on my official exam than I did on my practice. This improvement represents nearly 45% of the total point scoring range and included a full standard deviation of improvement on the verbal portion, as well as a whopping three standard deviations of improvement on the quantitative portion. While I have no opinion about whether Kamilah or Brendan cheated on their exams, I have very strong opinions about the malleability of standardized test scores and what they mean. In this chapter, I will tell the psychological story of these 102 days, what I think they mean, what I think they don't mean, and most importantly what I think they could mean for future standardized testing preparation.

### **"NOW YOU KNOW WHAT YOU'VE GOT TO DO."**

It is worth noting that I was an aspiring adult student, who was fully (if apprehensively) committing to pursuing a second career in academia. I juggled hopeful trepidation with healthy insecurity. I had spent most of the previous decade chasing the dream of becoming a songwriter, performing artist, and music producer. I was at the edge of what was going to be a foolhardy cannonball splash back into the academic pool. These were cold but familiar waters, as I had recently received a few years of exceptionally positive feedback after a decade of radically negative feedback about my academic prospects. This was it; I decided to plunge into my second dream and if I drowned, I drowned. I was going for it.

Upon deciding to pursue doctoral studies in psychology, I took an inventory of the kinds of qualifications needed. I perused the web pages of Ph.D. programs that I was interested in to gain an understanding of the admissions criteria. GRE scores were uniformly required for the kinds of programs I was drawn to, with an average (or minimum) combined score for admitted students consistently at 100 to 200 points higher than the combined 1120 (out of 1600) that I scored on the SAT a full 15 years earlier. I didn't know if these scores were comparable, but it was at the very least intimidating to compare them in my head. The websites for several programs I was interested in discussed how admissions committees weighted applications with multiple test scores. I

decided that the best way forward was to register for a practice test at a testing prep center to get a baseline assessment of where I was relative to the kinds of scores I needed. I figured the “official feel” of this approach would give me an accurate simulation of test day, while giving realistic and relatively objective feedback. Taking a practice exam at a test prep center would also keep me from having the blemish of an underperformance on my record. I set the date, July 18th, and received a confirmation email. I had taken a first step.

My decision, for better or for worse, was to take this test “cold,” with no prior preparation. I arrived at the testing center. The classroom was filled with 30 anxious test takers, hearts set on graduate studies. My blood rushed with the adrenaline of a school yard fight. The test administrator announced the instructions and passed out scrap paper, pencils, test booklets, and scoring sheets. We waited. At his instruction, I opened my booklet. It began.

With a rush, I faced an assortment of math riddles in shapes, symbols, words, and numbers. The questions in the booklet ranged from the mundane to the esoteric. On the quantitative sections, some test items reminded me of math I hadn’t done successfully since high school (again, 15 years earlier), while many of the other math problems looked like they were beamed in from some future Mars colony. The whole math section was a frustrating experience, but I did my best and slogged through it. I used my scrap paper, I dug my heels in, and I tried.

The verbal section was more encouraging. Some of the words I had seen and some I could glean from context clues. There were also many words, many passages, and many questions I could not make much sense out of. I grasped for straws, I contemplated root words, I bubbled in answers. The time expired and I turned in my test with the confidence that I had completed an important step in my journey; I was going to get needed objective feedback about an obstacle on the path I committed to, the ethereal path to a future imagined self. The path to becoming Dr. Malik Boykin.

Our tests were scored while we waited and were to be distributed to us at our desks by our proctor. Twenty minutes later my score sheet was handed to me. It was literally one of the most demoralizing experiences of my entire life. My shoulders slumped, and my spine jellied. In the eternity of those moments, I saw the vapors escape as my academic dream “dried up like a raisin in the sun” (Hughes, 1951 p. 74). I felt both morally disgusted and utterly insulted. I

vehemently stared into the numbers representing my score with a slight snarl, a 310 out of 800 on the quantitative section and a 520 out of 800 on the verbal for a combined 830.

My blood boiled as I conjured the composure to fight back tears. I let go as a helpless calm washed over me. In shock, I mourned the death of my imagined future self. I left the testing center dejected after suppressing my emotions enough to endure the spiel I unwittingly signed up for, which provided costs for the test prep courses and private tutor offerings available at the center. In this vulnerable state, I called and confided in a friend that I felt as if the GRE and the evil geniuses who conceived it co-conspired to tell me that I was innately stupid and devoid of the intellectual talent needed for graduate study.

To call this one of the lowest points of my life would not be an overstatement. It was miserable. I felt like I was face-to-face with confirmation that I was the loser that dissenters in my hero story believed I was. I could hear their voices: ex-girlfriends, family friends, family members, and my high school guidance counselor who lived in my head as a chorus of "I told you so"s. To some I was wasted potential and to others, I never had any potential at all. In either case, this practice test validated their assessments. It was the most painful and important existential crisis of my adult life.

The next day, I spoke with my friend Tajai Massey, a friend and fellow hip-hop artist who graduated with a bachelor's degree from Stanford University. With the wisdom of eight simple and earnest words, he breathed life back into my academic dreams. In response to my candid expression of pain about my GRE practice test-induced trauma, he simply replied, "Now you know what you've got to do." It was automatic, as if he had no doubt that I had what it took to change these circumstances. In those words, he reminded me that I had agency in the situation and communicated that his belief in me and my ability to transcend this obstacle had not wavered. These were the unforgettable eight words I needed to get back on the bike and to keep pedaling on the road to changing my life.

### ***Change is an arduous process***

Change is an arduous process and one that I studied intensely during the organizational psychology master's program that my eventual GRE score helped get me into. Organizational change theories I learned in this curriculum

have subsequently helped me make sense of the personal changes I went through in order to have the chance to study them. In their foundational work, Beckhard and Harris (1987) describe organizational change as being dependent on a ratio between 'need for change' and 'resistance to change'. Their theory espouses that change happens when the need for change, defined by three components: (a) having a level of dissatisfaction with the present state, (b) having a clear vision of the desired future state, and (c) having knowledge of the practical first step toward actualizing change, become greater than the desire to resist change. For me, the components needed for change were in abundance. My level of dissatisfaction was high; I was utterly dejected and in the throes of a very unsatisfying identity crisis. My vision for a future state was clear, as I needed to change into an individual who could achieve a GRE score high enough to be competitive for the programs I wanted to apply to. I could see my seemingly improbable future self clearly, and I desperately wanted to become him. And through Tajai's words, the first steps became clear-- they included picking my current self up off of the proverbial floor and creating a study plan to raise my score from the bottom of the score distribution abyss. I needed to get ahold of study materials and do something other than watch the open sores on these dreams "fester... and then run" (Hughes, 1951 p. 74).

### ***Identity Conflicts***

I'm going to leap from this moment in 2010 to an analogous short story from my graduate school career that has since helped me to understand the identity conflict I experienced as a test taker. Let me start by situating this story in the framework of Jürgen Habermas, who argued that an identity crisis occurs in situations in which a person's identity commitments necessitate competing behaviors or perspectives (Baumeister, Shapiro, and Tice, 1985; Habermas, 1973). I felt the dissonance of competing perspectives tugging my senses of identity commitment in opposite directions as a Columbia University Master's student who is also named Malik in honor of Malcolm X. The international civil rights hero Malcolm X changed his name to El Hajj Malik Shabazz after his pilgrimage to Mecca and was gunned down while speaking in New York City in 1965. In the 1980's, Columbia University purchased the Audubon Ballroom where Shabazz was assassinated and subsequently planned to tear down the building and construct a biomedical research facility in its place (Sussel,

2017). Many people in the Harlem community, where Malcolm had tremendous impact, were furious and erupted in protest. In response to community outrage about the conversion of this space held sacred in the Black community, Columbia compromised not to tear the building down and to instead convert it into a mixed-use building. Part of the building would be a biomedical research center, and part of the building would be a memorial to Malcolm X. Without prior knowledge of this heated conflict between Columbia and the surrounding community, I visited the Malcolm X memorial in the Audubon Ballroom on a rainy day. I somberly wandered through the memorial and curiously gazed at the life-sized, shiny gold Malcolm X statue. I was flustered as I scrutinized the small preserved portion of the stage on which Malcolm was murdered, trying to determine if a marker of the exact place where he was murdered existed. It didn't. It was underwhelming, and I expressed my dissatisfaction with the curator who expressed his mutual dissatisfaction and disgust as well. As we shared in our moral outrage about where this memorial failed in honoring Malcolm, I flashbulb remembered that I was doing so while wearing my Columbia University rain jacket. I was simultaneously participating in the prestige and privilege afforded to me by my affiliation with Columbia, while expressing outrage about Columbia's disrespect of my namesake and his legacy. That morning, I had put on my rain jacket with pride in my scholarly accomplishment, but that evening, I wore it home with shame. The onus of resolving the pride and shame of this identity conflict fell on the shoulders of one person only – me. I had to actively soul search to make sense of what this duality meant for my self-concept and how I would proceed with these competing commitments.

Academic identities are also vulnerable to the situational identity conflicts that Habermas describes. Students who have consistently performed exceptionally well throughout high school can face a crisis of a similar type when they receive their first bad (or mediocre) grade in college (Dweck, 2006). Are they the student who previously performed well, or have they arrived at the edge of their abilities in college where they are comparatively mediocre to their new college peers? To resolve the dissonance of this conflict, they may either need to alter their study habits, lower their expectations of themselves, or invalidate the mechanism by which their grade was derived. By extension, the aspiring graduate student often has to juggle the complexity that their identity

as a standardized test taker adds to their academic self-concept. They've made an identity-based commitment to seeing themselves at the next level of their higher education journey. In the event that they receive positive feedback from their test performance, then their identities as an aspiring PhD student and as a standardized test taker are congruent and there is no conflict. However, if the feedback is negative, they can face the devastation to their academic self-concept that I experienced. They can either lower their expectations of themselves and alter their aspirations accordingly, they can disparage the test, or they can commit to changing themselves by way of their test preparation. Choosing to change themselves through their preparation is to define their future performance as an event within their internal locus of control. It is to own this process as their own to resolve. It is a risky undertaking that can result in validating the previous performance as accurate. This highlights that a potential intrinsic motivator in standardized test score improvement lies within the struggle for identity congruence and not necessarily within the score itself.

### **Motivation**

In my quest for self-redemption and identity congruence through score improvement, I browsed a local bookstore's test prep section. I purchased my first commercial GRE study book, brought it home, and began by reading the introduction. The first chapters of the volume contained basic heuristics and philosophies of the test with an overview of "how to" and "how not to" approach the test. I read these deeply and then moved on to the first section of tips for specific question types and practice problems. I attacked these problem sets with fervor then checked the explanations for the items I got right and the ones I got wrong. I repeated these steps every day for a week, and I took another practice test that weekend. I was under no illusion that the gains I needed to arrive at the kind of scores I aspired to would happen overnight, but I was committed to the idea that they could happen eventually. A little bit of improvement would be confirmation that I was heading in the right direction and that I was correct to bet on myself in committing to develop my standardized test taker identity. There are a lot of points to earn between 830 and 1600, and every incremental rung of improvement was a climb up the ladder worth celebrating. I remember my first time cracking 900 and cheering about it, and I remember celebrating 1000 with dancing. The commitment to eventually

reaching my target score of 1300 was one of the most transformational decisions of my life. If I scored between 1200 and 1300 on my official test, I was going to be content with my score. This was the fight I was fighting. I would not study for a finite amount of time, but instead I would study until I got my score. In the end, I completed fourteen GRE practice books from cover-to-cover, I learned 1500 new words, and I leveraged a series of smartphone apps and computer tools that gave detailed breakdowns on problem types and vocabulary words that I was consistently faltering on. Engaging with the systematic negative feedback provided opportunities to constructively channel my energies toward targeted growth.

The strategies I tried, the gains I accrued, and the focus I found did not occur in a vacuum. I shared my goals and vulnerabilities with people and I asked for help. People can't help you to accomplish your goal if they do not know what your goal is. My score, especially my quantitative score, was so rock bottom that I was devoid of shame in expressing my woe. Counterintuitively, this was a huge asset. It authorized me to ask for help that I may not have otherwise; and asking for help is of the utmost importance. I was desperate for advice and I let everybody know that I was committing to the process of trying to improve my GRE score. I asked everyone I knew who had done a master's or a PhD about their preparation for their standardized test. I asked friends who taught high school mathematics, friends who were engineers, psychologists, PhD students at various universities, significant others of friends, former professors, coworkers, and anyone who would listen. I leaned heavily on my social network and my network's network. I sourced advice from everywhere I could, and I took copious notes. Everything that sounded like it contained information that could affect positive change, I kept. Everything that sounded like negativity, a fixed conception of ability, and discouragement, I threw away.

The advice I was given spanned the gamut of quality. I got great advice, categorically awful advice, cathartic testimonials, lament about listening to poor advice, and 20/20 hindsight from people who wished they knew then what they know now. One story that stood out in particular was from a PhD student who got the advice that you can't change your score, and that you'll get about what you got on the SATs. He listened to this advice, he didn't study, and he regrets it even though he is now a psychology professional. I was told to read passages from *Reader's Digest* and from the *New York Times* and to look up



every word I didn't know. I did. I was given a list of mathematical formulas to commit to memory. I did this too and it helped a lot. Some of my friends taught for standardized testing prep companies in their spare time, which I did not know about them prior to my quest. I would not have known this if I wasn't sharing my goals. These friends took time to give me several free, personalized tutoring sessions. One friend took the test for graduate school and then studied on their own to try and improve their score. They did worse the second time and they told me not to study. I instead encoded this as to not study without a systematic process to assess skill acquisition, growth gains, and change over time. My friend Josh, a high school algebra teacher, told me to bring him the problems that were giving me particular trouble. He opened my eyes to strategies I would not have known, and I learned to use them. He also advised that I should get ahold of an algebra textbook and strengthen my knowledge of the basics. All of these conversations were important not only because I was able to rely on a diverse brain trust to solve the kinds of problems I was facing, but I also gained a network of people who were specifically invested in my goal. There were people who could share in my incremental successes and support my growth and my vulnerability. I found support for my dream, and I found people who had not found support for theirs. I felt like I was working toward something that was bigger than myself, and it started with the belief that my score could change. It did.

### ***Self Determination Theory (SDT)***

In their Self Determination Theory (SDT) of motivation, Deci and Ryan (2000) describe three essential needs that provide the basis for intrinsic motivation and personality integration. These three empirically derived and supported needs are the needs for Autonomy, Relatedness, and Competence (Deci & Ryan, 2000; Ryan & Deci, 2000). The first of these is the need for autonomy, which they describe in terms of an individual endorsing –at the highest level of the self– that their actions have causal power to help produce the outcomes that the person hopes to see in the world or in their lives. When I received my initial score, I stripped myself of this autonomy, but Tajai helped me to re-authorize myself to take ownership of this process and exercise my agency. He helped me to see that my current self and my future self could become a congruent and reconciled whole if I worked to achieve this integration. This ties a second need

described within SDT, namely the need for a sense of relatedness. Deci and Ryan (2000) define relatedness as the need to feel connectedness to, valued by, and supported by other people. In this, the behaviors individuals enact toward their goals are supported by the people they feel connection with, and the investment helps to strengthen their relational bonds. Every point along this journey provided opportunities for me to listen to friends' advice, to lean on their shoulders, and to learn from their mistakes. My successes were cared about, and my failures were treated with care. This sense of relatedness was a critical component to my journey. Lastly, the need for competence is construed as the need to feel capable, skillful, and effective within the given domain. While my friends helped to remind me that I was competent in general, it was the incremental changes in my scores and abilities that helped to grow my sense of competence. Once I learned the formulas that I would likely see on subsequent practice tests, I could apply them to think through problems. Once I knew the tips and tricks, sometimes I realized I didn't even need to do math at all for some problems. I gained GRE competence and confidence little by little, and these little gains helped to keep me engaged and motivated. When I began to see my scores consistently above 1200, I knew that I was getting close to where I needed to be for my target score. The day I sat at my office computer and took a full-length GRE practice test provided by ETS and scored a 1370 is the day I registered for my official test date. I arrived, and with all the adrenaline of my first practice at the testing center, I grinded through section after section like I had practiced repeatedly. When I finished, my final score appeared on the screen, a combined 1380. I leaped back from my chair and threw both fists in the air for victory. I had gone from a 310 to a 730 on the Quantitative Reasoning portion, and from a 520 to a 650 on the verbal section. Through self-determination, incremental change, and a lot of support, I completely smashed my goal. The question now is what does any of this mean?

### ***Sources of Invalidity***

Several aspects of these stories lend themselves to critiquing the validity of the GRE specifically and the validity of standardized testing in general. For starters, if preparation for the test can induce standard deviation sized (and larger) gains on the exam, then how do we make sense of the individual scores? Let's assume Kamilah and Brendan's scores were legitimately earned.

Should their or my abilities be judged by the initial baseline scores, or by the post-practice scores? Advised by her college counselor, Kamilah's strategy was to assess herself with an official test to get a baseline score to inform her preparation for a future performance (Jaschik, 2019a). If Kamilah instead were erroneously advised not to study because scores are a fixed immovable entity, as my friend had been advised, her lower score might have been the only data point recorded about her ability. If she used materials to assess herself at home or went to a test prep center for her baseline measure, her 300 point higher second score might be the only data point known about her performance. An entire two standard deviations in her performance is potentially explainable by her belief that she could improve her score and how she proceeded with this knowledge. She stated that she leveraged an iterative strategy to assess herself to inform her plans for preparation. Her college counselor did not advise her to take a practice test under test-like pressure as a baseline, but he did give her the best advice he knew to give. In some ways, this exemplifies Deil-Amen and Tevis' (2010) finding that Black and Brown students with lofty educational aspirations are unable to find their way to the best practices for standardized test preparation. This gap in access to accurate test-prep information that is disseminated to students at more affluent schools rather than to all students is systemically meaningful and should be considered.

In partial defense of their response to Kamilah's 310 point gain on the SAT, the College Board released a statement stating that they've recently celebrated 100,000 students who improved their scores by 200 points using online preparation from Khan Academy (College Board, 2017; College Board, 2019b). It goes on to state that the gains were consistent across race, social class, and gender. Similarly, the College Board released a statement in 2017 stating that 20 hours of test preparation using Khan Academy predicted 115 points of improvement in SAT scores (College Board, 2017; College Board, 2019b). If 20 hours of preparation predicts 115 points of improvement in student's scores, then what does this mean for score disparities when standardized test preparation disparities of 20 hours exist between students? Would this score disparity tell us more about their exposure to resources, about their access to good advice, about their motivation to prepare, or about their abilities? Further, in my own case, what does this mean for 400 (20 times 20!) hours worth of preparation disparity distributed across 102 days as it relates to the assessment

of ability? What does this mean for 17 years of preparation disparity, regarding ability? While my scores do not represent true test-retest measurements standardized by the same entity, it is clear that my ability to perform well on the exam greatly improved over those 102 days by way of the 400 hours that I authorized myself to commit for the purpose of changing my ability to perform well. This authorization and the change process was catalyzed by my beliefs that my score was not a fixed entity. The belief was imbued in me by people that I know who offered me the hope, knowledge, and support to motivate this change. Having access to accurate approaches to preparation, and more importantly, being imbued with the belief that you can change your score with preparation should not be contributing meaningful and systematic variance to measures construed as fixed ability. If scores are not fixed, then what are they? What is our theory of this movable, as opposed to fixed, construct? How does our knowledge of this movability factor into our definition of it (Cole, 1982)? How can we isolate the part of this which is a person's ability from the part that is the person's lay theory about the possibility of change through preparation? Which part of this variance corrects for access to a social network that could support the actualization of change if one dares to believe that change is possible? A more than \$20 billion dollar (and increasing) industry exists bolstered by the idea that test score assessments represent a temporary status, and that an individual can be developed to become a better prepared and higher scoring test taker in the future (Chang, 2017). How much of this information trickles down to aspiring students depends largely on the socio-economic conditions where the students live, learn, and incubate their aspirations.

### **On resistance**

Reverse engineering Beckhard and Harris's (1987) model for change provides us with tools for contemplating conditions that stifle change. If one embraces that change happens when a person's (a) dissatisfaction with the present state, (b) vision of the desired future state, and (c) knowledge of practical first steps toward enacting change, become greater than resistance to change, then each of these provides opportunities for understanding when change does not happen. Having dissatisfaction with the present state presumes knowing and accepting what the present score status is, and also knowing that you should be upset about it. Leveraging this status assessment

for change is preceded by having a theory that the present score status is changeable in the first place. You can't invest in changes that you don't know about, accept, experience as necessary, or believe in. Regarding having a clear vision of their desired future state, a person needs to have complex perspectives about the developmental trajectory of future selves. We do not change into our future selves overnight, but rather through an incremental developmental path of growing into our future selves. Becoming the selves we aspire to takes investing in many unfinished and "in-between" future selves that exist on the path between the present self and the goal-actualized selves we envision and idealize. Developing our standardized test taking selves necessitates breaking down our growth goals into the relatively small changes we can make to our knowledge and to our habits over time. Here is where the iterative interplay between accurate and specific score assessment, a vision of a future state, and a knowledge of the first steps come together to produce score change. If the current and dissatisfied GRE taker self has a score of 139 and aspires to score a 160 in the future, then envisioning and investing in the actualization of 143, 149, 152, and 156 scoring selves is necessary along the way. And if the 139 score self is weak on problems involving triangles, or fractions, PEMDAS, or the Pythagorean theorem, then strengthening these skills and developing the habits that grow these skills become the specific steps toward arriving at the many incremental and successive future selves along the way. Conversely, (a) not having a score assessment, not knowing to be upset about it, and not having knowledge that score change is possible; (b) not having a nuanced and graduated sense of desired future states; and (c) not knowing the first steps toward becoming an incrementally higher scoring future self, can all contribute to shrinking a person's chances of overcoming their own resistance to change.

Accepting an assessment score that is lower than desired, or needed, is risky and threatening one's identity. It can represent a loss of credibility for the academic self and the selves' aspirations. It cedes credibility to the assessment score and concedes that the present state is not enough to accomplish the goal. If one doesn't also believe that the present state is changeable, then they can erroneously concede too much ground to a variable number. They can wrongly reappraise the self as incapable of accomplishing the goal. It unnecessarily lends itself to hurt, hopelessness, and despair. And humans are a risk-averse species, making the risks involved with accepting and engaging

with the score a hard source of resistance to overcome.

Even if one believes the score is changeable, the size of the gap between the current and the desired score may seem too great to overcome without extreme effort. It may seem like it'd take an eternity to actualize meaningful change. It may feel too heavy to lift, and the act of trying is an admission of some culpability to the disaster that could be the earned score at the end of all intense effort. And why spend all of that time and effort on change that is theorized to not be possible in the first place, since the score measures a supposedly fixed entity? The idea of trying and failing is threatening, as it could confirm the negative assessment as true. It could be confirming that the stereotypes about one's racial or ethnic group, or their gender, or their social class, or their age group as true (Lawrence, Crocker, & Dweck, 2005; Steele, 2011; Steele & Aronson, 1995). However, the act of not trying implicitly endorses that the assessment is true, concedes that trying is too scary, or gambles on a philosophical invalidation of the test that feels good for the ego but may be counterproductive to the goal. You then can then opt to avoid, shift courses, or aim lower while your academic dream "just sags like a heavy load" (Hughes, 1951 p. 74). And all these could be easier and maybe more attractive options than taking ownership of the change process, seeking support, attempting to grow a little at a time, and risking your sense of competence and efficacy in the process. Shooting for the stars and landing on the moon is one thing, but failing to launch is another thing entirely.

### ***...and identity threats***

So what can be done? Identity crises can be assets if they motivate a test taker to action, and for many the act of having an academic identity with an ego to defend is an act of radical subversion to begin with (Nasir, McLaughlin, & Jones 2009). If the crises cause one to undertake the project of elevating the performance of their standardized test taking self to a level commiserate with (or higher than) the academic self they wish to develop with a higher education opportunity that requires a standardized test, then it is a positive thing. We should instruct individuals to compartmentalize their standardized test taking selves and to nurture development with a systematic, careful, and rigorous process. I propose a program that I call "The Foray Into Four As". The Four As are to (1) assess the score, (2) accept the results, (3) analyze missed

questions, and (4) adapt the learning strategy to acquire the skills needed to improve performance. Let these 4 A's guide the course of standardized testing self-growth.

Adaptation can include leveraging networks to find solutions to onerous problems! It is likely that somebody within the network knows the answer or the information that is presently unknown, or that someone in the network knows someone they can ask (Westaby, Pfaff, & Redding, 2014). Adaptation can include memorization of formulas and heuristic tools necessary to think through problems. This strategy can be combined with learning tips and tricks that allow test takers to solve specific question types quickly. Adaptation can include leveraging free online resources like the Khan Academy, or brushing up on root words and prefixes. It can include sitting for full length tests at testing centers or creating timed mock exams for assessments at home. It can be tutoring, it can be completing test prep books, it can be using textbooks to brush up on the basics. In the near future, it can include the leveraging of artificial intelligence to identify and present the kinds of activities that direct growth for students, activities that are informed by specific personal assessment. Adaptation is the driver of growth, and our technology should be geared toward student adaptation.

### ***And in the end...***

With no options to prove her innocence, other than to sit for another exam, Kamilah withdrew her legal fight against the college board and deferred her college dreams for a year. However unfair this may be, I am certain that with the hope, work ethic, and determination she espouses to have poured into her dream, she will achieve an equivalent score or higher on the SAT (Hanna, 2019b). This was the case for Brendan Clare, who retook the ACT exam and demonstrated that the growth he claimed to have gained through studying was replicable (Jaschik, 2019b). He also filed a law suit critiquing due process pertaining to cheating investigations that is potentially pertinent to his case and to Kamilah's. After I replicated my 1370 practice test with an official 1380 GRE score, I was able to further develop my passion for psychology in a master's program at Columbia University's Teachers College. This opportunity helped ready me for admittance to the Ph.D. program in Social and Personality Psychology at the University of California – Berkeley, where

I was trained in psychometric measurement and received clinical training in cognitive assessment. Nine years after facing the crisis of attaining a GRE score estimate that corroborated assessments that I had no academic future, I find myself authorized to critique the validity of standardized tests and offer hope to students who aspire to achieve higher scores on them. Higher scores are possible, but they may require a radical shift in your approach. So, of this possibility for the soon-to-be test taker I ask, does the specter of your academic dream deferring ignite you into a process of radical change to save said dream, "or does it explode?" (Hughes, 1951, p. 74).



## Chapter 10 Prerequisite Experience and Learning

Bibliographic Note:

*Ideas presented here about prerequisite resource kits were, in part, influenced by:*  
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## Chapter 11 A Case Study in Standardized Test Preparation

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