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Research Statement

Many people struggle when it comes to achieving their goals. They procrastinate, find it difficult to marshal the motivation necessary to finish tasks, and seem to have trouble self-regulating goal-directed activity. The major aim of my research is to uncover the psychological processes that underlie successful goal pursuit in order to develop empirically informed interventions that enhance motivation and self-regulation, helping individuals to improve their chances of successfully achieving their aspirations. The questions that my research addresses therefore have important implications in both basic and applied domains.

My research focuses on two motivational contexts: education and health. In the area of education, my work examines the antecedents, outcomes, and development of individuals’ achievement goals. I then apply the knowledge generated by this research to the design of interventions that help individuals succeed in real classroom settings. Within the health context, I use theories of social influence and self-regulation to develop tools that health practitioners can utilize to help their patients adopt more healthy behaviors. My extensive training in advanced statistical methods informs my research in all of these areas.

Outcomes, Antecedents, and Development of Achievement Goals

My research in this area investigates how motivational differences relate to success and failure, especially in academic settings. According to the 2 × 2 model of achievement motivation (Elliot & McGregor, 2001), achievement goals are individuals’ cognitively represented desired or undesired future academic outcomes. This framework specifies two dimensions that underlie goals – valence (approach vs. avoidance) and content (mastery vs. performance) – which when combined form four distinct types of achievement goals. For example, an individual might strive to improve her competence in an area (a mastery approach goal), whereas another person might want to avoid looking incompetent compared to his peers (a performance avoidance goal).

Research using this framework has generally found that the approach forms of the goals are associated with positive academic outcomes, whereas the avoidance forms of the goals are associated with negative academic outcomes (e.g., Church et al., 2001). My research examines why this is the case. One large contribution I have made in this area has been to show that boundary goals, a type of target goal that represents an individual’s lowest acceptable performance level, are predicted by individuals’ achievement goals and mediate the relation between achievement goals and academic outcomes (Corker & Donnellan, In Press). Put simply, differences in individuals’ lower boundaries for defining success can explain the performance differences observed in many previous studies of achievement.

In addition to examining how achievement goals anchor definitions of success, my research investigates developmental aspects of achievement goals. Specifically, my work exploring temperament antecedents of goals has found that individuals with high levels of conscientiousness perform better in their classes than less conscientious individuals for two reasons (Corker, Oswald, & Donnellan, In Press). First, conscientious individuals are more likely to adopt approach achievement goals, which facilitate success. Second, conscientious individuals adopt effortful strategies (such as completing more of their homework, attending class, and adopting more tenacious study habits) in the service of accomplishing their goals. These differences illuminate how conscientious individuals are achieving success, deepening our
understanding of how personality is expressed behaviorally. Furthermore, my work examining the developmental trajectories of students’ achievement goals (Corker, Donnellan, & Bowles, Under Review) has shown that achievement goals are highly stable over a four-year period. This work used a multivariate latent growth curve modeling approach, and in terms of mean-level changes, revealed that endorsement of mastery approach, mastery avoidance, and performance avoidance goals decreased over four years. Performance approach goals, in contrast, did not show any mean-level changes. This work represents the first long-term examination of achievement goal stability and change and suggests that achievement goals may be much more stable than previously thought.

The results of my basic research suggest that although individuals’ achievement goals themselves are not likely to be malleable, it may be possible to affect performance through individuals’ boundary goals and their effortful strategies. My dissertation therefore investigates the efficacy of several interventional techniques designed to impact students’ boundary goals and effortful strategies, with the aim of starting a chain of positive consequences ultimately leading to higher levels of academic performance and well-being. This research includes a field study for which data collection has just been completed, as well as a series of ongoing laboratory studies. My dissertation also expands on my work illuminating antecedents of achievement goal pursuit by investigating whether individuals’ levels of trait conscientiousness moderate the efficacy of the intervention.

As I expand on my dissertation, I am especially interested in examining the effectiveness of my interventions on important subgroups of students (i.e., minority students, women, and first-generation college students). Indeed, women and minority group members have traditionally performed less well than their White male counterparts in science, technology, engineering, and mathematics (STEM) courses in college; interventions that help members of these groups are therefore especially needed.

In addition, the motivational challenges in education have important parallels with achievement concerns in the workplace. Motivating employees to set high goals and exert high levels of effort is critical to effective management. However, there are important differences between the workplace and the classroom – especially regarding frequency and clarity of feedback. Students regularly receive graded evaluations of their work, whereas such consistent feedback may not be available to employees. Moreover, when students perform poorly early in a grading period, they typically have many opportunities to improve. Employees who underperform may simply lose their jobs. In my future research, I plan to investigate how these unique facets of the workplace influence motivational processes.

### Social Influence in Adherence to Health Behavior Recommendations

My interest in theories of motivation has led me to the question of how we can influence people to change – particularly with respect to modifying health behavior. My research in this area is informed by two very different theoretical approaches: regulatory focus theory and theories of bounded rationality. Regulatory focus theory posits that two different motivational orientations guide behavior. Individuals in a promotion focus are concerned with growth needs and are more attentive to the presence and absence of positive outcomes, whereas individuals in a prevention focus are concerned with safety needs and are more attentive to the presence and absence of negative outcomes. Because persuasive messages can be framed in terms of positive
or negative outcomes, regulatory focus theory predicts that promotion and prevention focused individuals will be differentially responsive to these messages.

My colleagues and I have used this theory to develop a new framework that predicts when a framed message advocating healthy behavior will be most effective. Several studies have now demonstrated that messages that describe the positive outcomes that result from adhering to a recommended health behavior are more persuasive to recipients with high levels of promotion focus, whereas messages that describe the negative consequences of not adhering to a recommended behavior are more persuasive to recipients with high levels of prevention focus (Cesario, Corker, & Jelinek, Revise and Resubmit).

Our regulatory focus framework suggests several new ways of conceptualizing framed messages. Previous work has made the distinction between health-affirming and disease-detecting behaviors. However, my work indicates that this distinction is less important than an individual’s construal of the outcomes of a behavior as growth or safety related. For example, in one study I constructed messages that encourage vaccination (a health-affirming behavior) by describing them as either preventing a threat to one’s safety or preventing a threat to healthy growth. I found that messages that highlight the negative consequences of failing to get vaccinated are more effective than messages that emphasize the positive consequences of getting vaccinated when vaccination is described as preventing a threat to safety. The reverse is true when vaccination is described as preventing a threat to healthy growth (Cesario, Corker, & Jelinek, Revise and Resubmit).

I have also applied this framework in collaboration with doctors in a regional network of hospitals who are working to encourage annual colorectal cancer screening for individuals over the age of 55. Every year, nearly 4,000 people request home screening kits from these hospitals, but over 60% never complete the test. Preliminary results of my research have found that patients who requested a kit and received a message framed in terms of the negative consequences that result from failing to follow through with the test returned the kit at a higher rate than patients receiving a control kit (Corker & Cesario, Manuscript in Preparation). This result would be expected given the regulatory focus prediction that outcomes that are construed as a threat to safety (like cancer) prime a prevention focus, which matches a negative outcome frame.

My health behavior research is also informed by theories of bounded rationality, which assert that individuals use cognitive shortcuts (i.e., heuristics) to simplify complex decisions. In other words, people do not necessarily consider all available or relevant information when making a choice. Medical decision aids are tools that are used to help patients to better understand and more fully participate in multi-faceted health decisions. Yet the most common decision aid used by medical professionals to help their patients make optimal decisions employs a technique known as the analytic hierarchy process (AHP; Dolan et al., 1989), in which individuals compare every aspect of a decision scenario to every other aspect. The assumption underlying the AHP is that individuals must fully consider all information when making a decision in order to come to an optimal conclusion.

I am currently developing decision aids that will allow me to test the predictions of bounded rationality theories in the health context. These materials include the same information presented in standard decision aids, but simplify the comparison process through the use of fast and frugal heuristics. I am working in collaboration with doctors and health educators at the Women’s Health Center at Michigan State to conduct a randomized control trial testing the efficacy of the heuristic versus analytic decision procedures in the context of women’s contraceptive choice, examining both short- and long-term outcomes. I expect that women who
choose a contraceptive option using a heuristic decision aid will be at least as satisfied with their decision as women who choose using the more time-intensive analytic method. Developing quick but effective decision aids is an important applied concern, but at a basic level, this work contributes to our understanding of how people make complex decisions.

My research to date has focused on attempts to influence behavior at a single point in time – however important health decisions occur over time and are often made sequentially (e.g., if initial screening results are positive, a patient must decide whether to follow-up with more tests). Therefore in my future research, I am planning to expand my inquiry in two ways. First, regulatory focus theory suggests that individuals at different stages of change have different motivations and will respond differently to influence attempts, which suggests new ways of matching messages. Second, little is known about how individuals respond to repeated influence attempts over time. For instance, how frequently should individuals be exposed to a message to optimally produce change without fatiguing them?

**Conclusion**

Throughout all of my research, my passion for doing theory-driven psychological research that also has real-world, applied value should be apparent. My work strives not only to advance our knowledge of human psychological processes, but also to improve individuals’ quality of life. Such work is required in the context of a 21st century science that is increasingly multi-disciplinary and application focused. I am prepared for the challenge that applying psychology to real-world problems brings, as evidenced by the collaborations I have already formed with educators and health care specialists, as well as my extensive methodological and theoretical training.

**References**


