Theories of Intelligence and Learned Helplessness: The Role of Social Psychology in Schools

Team Awesome (Purple)
Paper #2: Influencing Academic Behavior & Attitudes via Social Psychology
EDP 7400
Feb. 9, 2010

Theories of Intelligence and Learned Helplessness: The Role of Social Psychology in Schools

One of social psychology's primary contributions has been to clearly illustrate that people's beliefs directly affect their behavior. This connection is especially clear in the areas of achievement and motivation where beliefs about the nature of intelligence and perceptions of the roles of effort and ability in failure impact a student's willingness to persist when faced with difficult tasks (Dweck, 2008). One key belief that plays a role in motivation in an academic environment is a student's personal theory about the nature of their intelligence. Students who believe their intelligence is a fixed trait that is unchangeable through effort or experience are described as entity theorists. Alternatively, students who believe that intelligence is a malleable quality that can be developed through working hard on important learning tasks adopt the incremental theory of intelligence (Dweck, 1999).

A student's belief about the nature of their intelligence and whether it is fixed or malleable impacts their behavior in several key areas, including goal selection, attributions made after a failure, and beliefs about the role of effort in their subsequent performance. Students who believe their intelligence is fixed tend to select performance goals where the focus rests on being considered smarter than other people. In contrast, students who hold an incremental theory of intelligence tend to select challenging tasks where they will have an opportunity to learn (Mangels, Butterfield, Lamb, Good, & Dweck, 2006). They tend to select learning goals in spite of the risk for failure or looking stupid because the task offers the chance to acquire skills and knowledge (Dweck, 1986).

A student's self-theory of intelligence also plays a role when the student is faced with an academic failure or difficult task. Entity theorists view academic setbacks or failures as direct and negative reflections of their intellectual abilities. This view often also leads to exhibiting less effort on tasks or subjects similar to the failure experience when faced with such tasks in the future (Dweck, 2008). When a student believes failure on an achievement task is caused by ability, they expect to fail on future tasks of a similar nature. This attribution may lead them to avoid important tasks or not give their best effort because of the risk of failure (Andrews & Debus, 1978). On the other hand, incremental theorists often interpret setbacks and failures as clues about the strategy they used or level of effort they expended (Dweck & Sorich, 1999). These students are subsequently motivated to work harder because they believe effort is the way to achieve and overcome obstacles (Dweck 2008). Attributions students make about effort and ability can influence the level of persistence exhibited on future achievement tasks. Incremental theorists do not necessarily expect the same outcome on all similar tasks (Andrews & Debus, 1978).

Interestingly, an entity theorist's confidence in their ability seems to be fragile. Challenging tasks that require exertion or hard work appear to cause them to question their ability. Consequently, they avoid or fail to persist on the challenging tasks that could lead to growth in their ability. An incremental theorist's tendency toward learning goals focuses them on effort as the way to accomplish challenging tasks. They persist when faced with obstacles and they seek challenging tasks that will foster their intellectual growth (Dweck, 1986). Not surprisingly, students with an incremental view of intelligence have been shown to earn higher grades and higher achievement test scores that their peers during transitions to new schools (Dweck & Sorich, 1999).

Several studies have shown that careful interventions can improve a student's academic achievement. A group of college students were taught to view their intelligence as malleable, as an incremental theorist would view their intelligence. The students who learned about this theory had higher GPA's at the end of the study than comparable groups of students who were not taught the theory. The effect was especially notable for the minority students (Aronson, Fried, & Good, 2002). In a study with younger students, researchers worked with junior high students in a computer class where the students learned that intelligence can grow. Mentors helped each student create a web page that advocated the incremental theory of intelligence. At the end of the school year, the students that learned about the malleable nature of intelligence earned higher scores in math and reading on the statewide, standardized achievement tests than the students in the control group. The intervention was especially helpful for the female students, as the gender gap in math scores that existed in the control group did not occur in the group that received the intervention (Dweck, 2008). In another study with at-risk junior high students, two groups of students received training in important academic skills and concepts. Students in one of the groups was also taught the theory of malleable intelligence and that you can get smarter through learning. At the end of the semester, math grades of students in the experimental group were significantly higher than those in the control groups. Importantly, teachers also noted changes in academic motivation with students in the experimental group seemingly energized to learn and use their skills (Blackwell, Trzesniewski, & Dweck, 2003).

Results of these and other studies point to the value of including belief-changing interventions in schools. Self-theories of intelligence play a role in motivation and achievement through different attributions for failures and different views of effort that lead to varied goals and levels of persistence. Presently, academic interventions generally focus on teaching or

strengthening skills students lack, which may not be enough to effectively help at-risk and struggling students close the achievement gap. In the studies discussed previously, students in the control and intervention groups had equivalent skill levels, but only the students who received the intelligence theory belief changing intervention showed achievement gains (Dweck, 2008). Understanding the powerful role of attributions is critical when considering the concept of learned helplessness and its impact on students.

Seligman and Maier first described the learned helplessness theory. Their theory was based on an experiment they did with dogs. The experiment involved the dogs being exposed to inescapable shock when placed in shuttleboxes. The dogs that were previously exposed to this shock could move to the other side of the shuttlebox and terminate the shock; however they choose not to do so. They endured the shock and sat there helplessly. Altogether, Seligman and Maier witnessed the dogs make minimal effort to escape even if they had previously successfully escaped the shock. In this case the dogs had learned to behave helplessly, even when the opportunity was returned for them to help themselves avoid the shock; they were unable to observe any form of control over the outcome of their situation (Peterson, 1992).

Due to the complexity of the human mind, research later modified the model so that it could be applied to humans. The reformulated helpless model distinctively highlights people's causal attributions for their incapability of controlling events (Peterson, 1992). Attributions are described as being internal explanations individuals devise to clarify their achievement or disappointment at a task (Nolen-Hoeksema, Seligman, & Girgus, 1986).

Three dimensions of causal attributions are proposed: globality/specificity, stability/instability, and internality/externality. A global attribution is said to occur when an individual deems that the cause of negative events is constant across various settings. A specific

attribution is said to take place when a person supposes that the cause of a negative event is exclusive to certain circumstances. When a person believes that the cause is steady across time, a stable attribution is implied. Unstable attributions are implied when the individual thinks that the cause is exact to an occurrence in time. External attributions are factors that the individual believes not to be in their realm of control, while internal attributions are factors which an individual has the power to change (Nolen-Hoeksema, Seligman, & Girgus, 1986).

Individuals who typically describe bad events as internal, stable, and global will be more likely to experience symptoms of helplessness than individuals who depict events as external, unstable, and having specific causes. The manner in which individuals explain their experiences of a particular event (positive or negative) is said to be one's explanatory style. There are three components that psychologist have identified in the explanatory style; personal (individual identifies themselves as the cause of the event), permanent (the individual perceives the event as unchangeable), and pervasive; the individual sees the event affecting every domain of their life (Nolen-Hoeksema, Seligman, & Girgus, 1986).

In order to recognize learned helplessness in humans there are three different criteria that must be observed; maladaptive passivity, history of uncontrollability, and cognitive mediation of observed deficits. Maladaptive passivity can be detected when one acknowledges that any form of active reply would be better for the person than immobility. A history of uncontrollability is evident if one identifies such unmanageable events came before the observed passivity. Cognitive mediation can be determined if expectations of response-outcome independence are assigned a causal role in producing helplessness (Peterson, 1992).

Children who have a tendency to overreact when negative feedback is provided to them will typically give up after failure; these children have also been referred to as learned helpless.

Previous studies suggest that these children tend to explain academic failure in terms of stable and global causes and explain achievement in terms of unstable, specific causes (Daniels et al, 2009). When a child perceives that they have no control over what they do and what happens to them (that the two are independent of one another), they will habitually give up or lower the level of their performance (Finchman, Hokoda, & Sanders, 1989).

Children usually approach a task with some notion of how they will perform. After they have completed a task they will evaluate their performance and compare it to their initial expectation. The actual performance is said to play a key role in the way that the child revises his or her perception of their own control over their environment; the helpless child will rationalize his or her failure. The learned helpless child then lowers his or her expectations of future success and avoids the task in its entirety (Grimes, 1981).

On the other hand, mastery-oriented children do not perceive their failure as personal. These children see negative feedback as a challenge, and respond by increasing their determination and performance on the task. When offered criticism, they see it as beneficial and as an opportunity to modify their strategy. When these children are placed in situations that often result in failure, they frequently respond by utilizing advanced problem-solving strategies, self-monitoring and self-instruction. They also are reluctant to view themselves as failures. When learned helpless children are put into the same situation, they tend to make negative statements that influence their perceptions, and as a result they believe they have no control over the outcome. The learned helpless children blame such failures on their lack of ability, while the mastery-oriented children are more concerned about finding a remedy than the cause of failure (Grimes, 1981).

A child learns to explain failure primarily from the evaluative feedback that they receive from the adults in their life. Furthermore, when a child is told to try hard or put more effort into a task, more damage than good can occur. In some cases, children try their best and are not capable of mastering the academic task. Despite their effort, they do not succeed at the task, and therefore are left to conclude that they are lacking the ability. Continued success with no exposure to failure can be detrimental for a child. Therefore, it is suggested that all children should be exposed to small increments of failure partnered with adult encouragement to keep trying. A child who experiences failure and is able to move past it will not give up as easily (Grimes, 1981).

Learned helplessness is a phenomenon that can be prevented and undone (Peterson, 1992). Because of this, understanding the ways in which learned helplessness impacts students in the classroom can help teachers and parents to prevent the phenomenon from happening and undo the phenomenon. According to Peterson (1992) there are three primary ways that learned helplessness can be combated in the academic domain: Enriching the environment, retraining student attributions, and initiating parent interventions.

Environmental enrichment, according to Peterson (1992) means two things: There must be adequate rewards in the setting and the rewards must be contingent on what a person does. Enriching the environment comes in various forms in behavioral literature. In terms of the social psychological perspective however, this enrichment should come primarily in the form of praise as opposed to material goods. In this case, students and teachers should be responsive to each other and provide praise that can decrease passivity in the classroom (Peterson, 1992). As with any behavioral technique, rewards must be presented contingently with the behavior targeted for

change. Students will benefit most if the rules for reinforcement are presented clearly, fairly, and consistently.

One study conducted by Kleinhammer-Tramill, Tramill, Schrepel, and Davis (1983) found that in the classroom, eliminating noncontingent rewards and replacing them with only contingent rewards based on the display of target behaviors decreased the phenomenon of learned helplessness in the classroom. The study indicates that it may be useful to design curriculum materials and plan instructional strategies around the understanding of rewards in the environment and the negative effect that noncontingent rewards can have on students. Additionally, it may be useful to employ teacher training strategies to inform teachers of the effects of rewards in the classroom, and the ability for noncontingent rewards to develop learned helplessness in students. These teacher trainings can include such topics as underlying theories of applied behavioral analysis, selection of appropriate reinforcement schedules, and the use of feedback in the classroom.

A second method of intervening or preventing learned helplessness is through attribution retraining. According to Peterson (1992), this is how students and teachers explain bad events. For instance, individuals who typically describe bad events in terms of internal, stable, and global causes tend to have a greater likelihood of developing learned helplessness by way of these maladaptive thoughts. It is useful in this case to change their thinking to external, unstable, and specific causes in order to decrease the presence of learned helplessness. Typical therapeutic techniques can be adapted and used in the classroom in order to retrain a student's attributions. Teachers and students can work together using this method to test negative thoughts against an array of evidence. It is important for teachers to attend to both correct and incorrect answers as well as why some answers are better than others and how students can produce the better

answers. This focus on the achievement process should increase the student's self-efficacy and conscious use of strategies.

According to Peterson (1992), one of the most used intervention strategies in terms of attribution retraining is to teach the students to explain their failures as lack of effort as opposed to lack of ability. This is an ongoing classroom process in which the teacher must also provide feedback in this attributional manner. For instance, teachers should facilitate these attributions by making specific statements about work ethic such as, "You didn't spend enough time on your homework" rather than ability "You're so smart."

Finally, parent interventions are a useful way to modify the helpless behavior of their children. One study found that parents who explained bad events that involved their children with internal, stable, and global causes had children who consistently failed to live up to their potential. Considering these findings, it is fair to conclude that parent-teacher conferences and other school activities can be used to help parents learn to use a different explanatory style with regard to their children. Additionally, workshops or lectures considering this can be used to help parents incorporate the importance of optimism in parenting and learn about the effects that their optimism can have on their children's classroom achievement and behaviors (Peterson, 1992).

In addition to Peterson's methods of intervening on learned helplessness, Grimes (1981) indicates the usefulness of teaching students to provide correctional feedback and self-reinforcement. Additionally, it is important to keep the student in an active role over his or her education. This provides the student the means to control his or her own behavior and to take responsibility over the outcomes. This allows the student to become a self-sufficient learner. Students can be taught effective decision-making skills and problem-solving strategies that ultimately help the student to develop stronger self-control techniques. When students develop

these skills through proper teaching, active learners feel empowered to complete tasks on their

own. Students that have been in a passive learner role, ultimately in a learned helpless position

have a difficult time feeling as though they can complete a task on their own, and rather, feel as

though they need help. The ultimate goal, according to Grimes (1981) is to help students

become "Independent, self-motivated individuals with positive self-concepts about learning" (pp.

100). This outcome can be facilitated by both teacher and parent actions inside and outside of

the classroom.

A student's theory about the nature of their intelligence influences their perceptions about

their behavior, the attributions they make about academic failure, and their beliefs about the role

of effort in the future academic performance. Teaching students that intelligence is malleable

and can be cultivated through expending effort on challenging tasks has been shown to improve

achievement in some students. A student's theory of intelligence and attributional style are

important considerations when confronting difficult performance issues such as learned

helplessness. Learned helplessness has clear implications for student academic behavior. This

phenomenon has the ability to undermine a student's actual ability in the classroom. In order to

prevent learned helplessness from developing, or to undo what has already developed, teachers

can offer enriched environments in which rewards are presented contingently on positive

behavior, attributions can be modified, and parent interventions can be used to maximize

optimism in the home. Social psychological theories have a direct impact in the classroom and

can be used to optimize a student's capacity to learn and succceed.

References

Andrews, G. R., & Debus, R. L. (1978). Persistence and the causal perception of failure:

Modifying cognitive attributions. *Journal of Educational Psychology, 70*(2), 154-166.

Aronson, J., Fried, C., & Good, C. (2002). Reducing the effects of stereotype threat on African

American college students by shaping theories of intelligence. *Journal of Experimental*

Social Psychology, 38, 113-125.

Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2003). Implicit theories of intelligence

predict achievement across an adolescent transition: A longitudinal study and an

intervention. *Child Development, 78*, 246-263.

Daniels, D.M., Stupnisky, R.H., Pekrun, R., Haynes, T.L., Perry, R.P., & Newall, N.E. (2009). A

longitudinal analysis of achievement goals: from affective antecedents to emotional

effects and achievement outcomes. *American Psychological Association*, 101 (4), 948-

963.

Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist, 41*,

1040-1048.

Dweck, C. S. (1999). *Self-theories and goals: Their role in motivation, personality, and*

development. Philadelphia: Taylor& Francis/Psychology Press.

Dweck, C. S. (2008). Self-theories of intelligence. In Aronson, J., & Aronson, E., (Eds.).

Readings about the social animal (10th ed, pp. 217-231). New York: Worth Publishers.

Dweck, C. S., & Sorich, L. (1999). Mastery-oriented thinking. In C. R. Snyder (Ed.). *Coping:*

The psychology of what works. New York: Oxford University Press.

Fincham, F.D., Hokoda, A., & Sanders, R. (1989). Learned helplessness, test anxiety, and

academic achievement: a longitudinal analysis. *Child Development*, 60, 138-145.

Grimes, L. (1981). Learned helplessness and attribution theory: Redefining children's learning

      problems. *Learning Disability Quarterly, 4*(1), 91-100.

Kleinhammer-Tramill, P. J., Tramill, J. L., Schrepel, S. N., Davis, S. F. (1983). Learned

      helplessness in learning disabled adolescents as a function of noncontingent rewards.

      Learning Disability Quarterly, 6(1), 61-66.

Mangels, J. A., Butterfield, B., Lamb, J., Good, C., & Dweck, C. S. (2006). Why do beliefs

      about intelligence influence learning success? A social cognitive neuroscience model.

      Social Cognitive & Affective Neuroscience, 1, 75-86.

Nolen-Hoeksema, S., Seligman, M.E., Girgus, J.S. (1986). Learned helplessness in children: a

      longitudinal study of depression, achievement, and explanatory style. *Journal of*

      Personality and Social Psychology, 51 (2), 435-442.

Peterson, C. (1992). Learned helplessness and school problems. In Medway, F. J. & Cafferty,

      T. P., (Eds.). *School psychology: A social psychological perspective*. (pp. 359-376).

      New York: Routledge.