Are Motivational Theories too General to be Applied in Education?

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Abstract

If motivation is the desire to act or move toward a particular activity, task or goal, just what influences one's desire to do so remains complex. The impact of social context, or even just the perception of social context, can greatly influence what one attributes to their sense of self, as conveyed in attribution theory (AT), their perception of self-worth, as conveyed in self-worth theories (SWT) and subsequently their mindset and their behaviour to act, as conveyed in self-determination theory (SDT). Even more unclear is exactly what role the education system plays in fostering/hindering one's motivation to learn. It is clear however, that the structure of the education system, the influence of educator's actions and attitudes (whether deliberate or inadvertent), and the nature of peer competition can act as detrimental forces on the impact of one's sense of ability and self. Educational policy that is created based on generalizations about universally innate human abilities, needs and drives, makes the question of how to foster intrinsically motivated students in schools even more challenging. Outside school programs such as Motivate Canada, which aim to foster motivation in youth by strengthening their self-confidence, and in-school programs, such as Inter-A, which aims to generate intrinsic, mastery orientated motivation, may not address all the complex factors underlying student motivation, but are a good start. Subsequently, motivational theories, despite their inconclusiveness provide hope that for students to grow into emotionally well-adjusted adults prepared to constructively contribute to our societies.

"Your soul is oftentimes a battlefield upon which your reason and judgment wage war against your passion and your appetite. Your reasons and your passion are the rudder and the sails of your seafaring soul." *Kahlil Gibran*

Introduction: Motivation Overview

Are there trends and themes in the ways humans behave that transcend differences, such as experience, culture or setting, and are they universally generalizable? Educational policy in Canada is based on generalizations about universally innate human abilities, needs and drives. Such policies treat students as a homogenous group who are motivated in the same ways. If this were true, then motivating students to achieve well in school would be straightforward, formulaic and generally easy, but it's not. Examining what motivation is through attribution theory, self-worth theory and self-determination theory provides insight into how and why student motivation differs so drastically.

Traditionally, it was believed that the motivation to survive was the cause of all behaviour (Gollwitzer & Oettingen, 2001). In the Early-Modern Age, Rene Descartes argued that the body was an inactive factor of motivation, as the physical and mechanical nature of the body aimed to fulfill physical needs, whereas the mental, moral and intellectual mind, were considered an active factor in motivation because they could be controlled (Pakdel, 2013). From this understanding, Descartes believed that motivation could only be understood by a combination of a psychological and physiological analysis (Pakdel, 2013).

In contemporary Western society, there continues to be many differing understandings of the concept of motivation, which, overtime, has changed from being based on basic needs and action control, to the more contemporary focus which places goals, values, interests, abilities of self-worth and the social environment at the forefront of motivational theory (Gollwitzer & Oettingen, 2001). Contemporary motivational theories used in schools attempt to encourage the development of intrinsic motivation in hopes of creating students who value effort, enjoy learning and persist in the face of difficulties, regardless of the social context (Schunk et al., 2013). But can the social, cultural and historical context be removed from the discussion of motivation?

Three dominant theories of motivation have been frequently applied to education in the West. Attribution theory (AT) examines the reasons and explanations that individuals give to explain their success or failure (Graham & Williams, 2009). Self-Worth theories (SWT) posit that an individual's ability to achieve is linked to their perceptions of themselves, and that low self-perception will result in low motivation (Bandura, 1993). And Self-Determination Theory (SDT) examines individual's natural tendency to behave in certain ways and explores intrinsic and extrinsic motivation in guiding this behaviour (Deci & Ryan, 2002). While these motivational theories provide hope that educators can motivate students to grow into well-adjusted adults, prepared to positively contribute to our societies, they underestimate the impact that socio-cultural and historical contexts have on individual motivation.

Motivation – Theoretical Background

In order to appreciate how contemporary theories such as AT, SWT and SDT, have come to play such a dominant role in our Westernized understanding of motivation in education, it's necessary to examine their theoretical underpinnings. In 1941 Edward

Tolman examined drives, values, and beliefs in an attempt to determine why individuals were motivated to act in certain ways (Tolman, 1941). He determined that individual behaviour was motivated through biological drives, the strength of individual appetites, social drives, and the loyalty of one towards their group (Tolman, 1941). Tolman suggested that values, as determined by the social environment, and valences, as values interpreted within the individual, were both driving forces in individual's behaviours (Tolman, 1941). Similarly, Lewinian Field Theory developed by Kurt Lewin suggested that behaviour was a function of the interaction between individuals and their social environment (Wheeler, 2008). This theory suggested that it was important to consider the total environment which the person experienced and the forces within this environment that impacted individual behaviour (Wheeler, 2008). He believed that within individuals there were differing processes and expectations that were constantly interacting with the environment, and that whether this interaction was perceived as positive or negative, influenced individual's behaviour (Wheeler, 2008). This social constructivist theory set the groundwork for understanding the interaction of the social environment and the individual in determining motivation.

From Lewin's work emerged Albert Bandura's theories of motivation, which emphasized the importance of considering the social context within which motivation occurs (Bandura, 2011). According to Bandura, individual's beliefs in themselves vary across domains, under differing situational conditions and are influenced by whether individual's think pessimistically or optimistically in self-debilitating or self-enabling ways (Bandura, 2011). Bandura suggests that how individuals persevere in the face of difficulties, set goals for themselves and what they attribute their success/failure to is highly influenced by and cannot be removed from the social and physical environment they construct (2001). Bandura argues that the concept of self-efficacy, or one's belief in one's ability to succeed, is the main determinant of motivation because it shapes how individuals approach goals, tasks and challenges (2001). Yet, one's level of self-efficacy is largely dependent on one's sense of belonging and the social context in which one finds or creates for themselves (Bandura, 2001). Subsequently, the socio-cultural and historical environment that students operate in can greatly impact their motivation to succeed. Self-efficacy and sense of belonging can be influenced by a variety of circumstances, such as racism and poverty, that are often outside the control of students. As a result, motivational theories used as educational strategies to increase motivation broadly in students, often fail to consider the uniqueness of individual circumstances and therefore are frequently less effective in increasing student motivation than hoped for.

Attribution Theory

Attribution theory (AT) examines the reasons and explanations that individuals give to explain their success or failure (Graham & Williams, 2009). This theory maintains that whether an individual believes themselves to be capable of achieving a task or not, affects their approach to learning (Graham & Williams, 2009). In 1958 Fritz Heider's AT examined the determinants of success and failure by identifying ability, task difficulty and effort, as the main determinants of performance (Weiner, 2010). Building off of Heider's theory, Bernard Weiner argued that the main causes of achievement outcomes were also ability, task difficulty and effort, however he included a new concept which he

labelled as luck (Weiner, 2010). Julian Rotter had previously argued that whether an individual believed that the outcome of a task was a result of their own behaviour or an unpredictable circumstance such as luck or fate, influenced their future behaviour (Rotter, 1966). Rotter's theory suggested that individuals who strongly believed that they could control their own destiny would be more likely to take steps to improve their environmental conditions, place greater value on skill or achievement, and be more concerned with ability and failure (Rotter, 1966). Weiner suggested that both ability and effort were internal to the individual, and task difficulty and luck were external forces (Weiner, 2010). Combining the theoretical underpinnings of both Heider and Rotter, Weiner argued that the perceived causes of prior events (controllable or not) and that inferences regarding why one was rewarded or punished (individual behaviour or luck), determined what action would take place in the future (Weiner, 2010). In some cases however, regardless of the causes of prior events, the reality that exists because of the those events may negatively influence ones motivation. For instance, a child who was a residential school survivor may have had no control over that experience, and may have felt unjustly punished for the events that resulted from that experience, however, the long-lasting consequences of that event may continue to influence the individual's motivation, particularly in school. Inherent racism, discriminatory educational policies, mental health challenges and related poverty, may continue to influence that individual's motivation in ways that are beyond their control.

Weiner's theory also connected attributions of success to internal factors, such as effort, which he believed would give rise to more pride than would external forces, such as luck (Weiner, 2010). He suggested that the more difficult a task, the more likely the success would be ascribed to the self and the greater the pride in accomplishment would be (Weiner, 2010). Conversely, success in an easy task would lead to external task attribution and low pride (Weiner, 2010).

In the Western context, the most dominant perceived causes of success and failure are attributed to the individual, "I tried hard," or "I am not smart," (Graham & Williams, 2009). Teachers and the educational system indirectly and often unknowingly contribute to a student's belief in their ability and effort. For instance, a teacher who applies too much sympathy may convey to a student that they need help with all tasks because they have low ability (Graham & Williams, 2009). Conversely, a teacher who withholds help and invokes frustration may convey to a student that no amount of teacher support can change their low ability, because it is innate and independent of effort (Graham & Williams, 2009). How students infer teacher's attributions will be applied to their own self-ascription for failure or success (Graham & Williams, 2009). Subsequently, students can make self-enhancing errors for how they arrive at attributions by overestimating the role of certain personal traits and underestimating the role of social situational factors (Graham & Williams, 2009). However, the more likely a teacher is to understand the root cause of a student's behaviour, the more likely they are to adapt the social context and environment in which the student is learning to be more supportive (Gaier, 2015). This aligns with Bandura's argument that the social context, significantly influences individual self-beliefs and subsequently, their motivation. For instance, a student from a refugee background will have little-to-no control over the community they are placed in, the pre-existing safety risks in this

community, the dominant culture they are settling into and how they will be received by their new host community. These circumstances will influence both the opportunities available to them and the extent to which they are motivated to access the opportunities that are available to them. Thus, the safety of a neighbourhood after dark may influence whether a student stays after school to get extra help on their assignments and risk walking home alone in the dark, or just goes straight home and struggles through the material on their own. Certainly, individual motivation will play a role in how the student responds to the situation they are faced with, but the reasons and explanations students will attribute to their success/failure is largely influenced by the socio-cultural, historical and often political situations that they find themselves in.

Attribution theory subsequently has its downsides. AT has given inadequate attention to the idea of unstable ability or the notion that perceptions of causes are subjective and liable to change (Graham, 1991). For instance, the afore mentioned student from a refugee background may have succeeded in their home country school prior to coming to their new host country. However, in their new host country where their studies are complicated by language and cultural obstacles, they may find themselves unable to achieve the high marks they were once motivated to work towards. Their perception of themselves, their abilities and the causes of their success/failure may start to change, as they continually are faced with negative feedback. AT is also based on "common sense psychology" which posits that universally shared beliefs about the social world exist (Graham, 1991). For instance, AT may expect that most individuals would agree that suicide is wrong. However, this is not necessarily universally accepted, and therefore basing a theory on a presumed set of shared beliefs is flawed. In addition, AT's methodology is criticized for the emphasis on role-playing paradigms that lack substantial empirical literature linking attributions to actual achievement related behaviour (Graham, 1991). For instance, AT may ask participants how they feel in a certain situation, but it may not actually measure one's feelings during a real situation (Graham, 1991). Part of the problem becomes that there are no universal measurement tools of behaviours, because behaviours are influenced by multiple factors, including socio-cultural, historical and political variables that cannot all be controlled (Graham, 1991).

Self-Worth Theories & Mindsets

Motivational theories in education have also been shaped by Self-Worth theories (SWT) which argue that an individual's ability to achieve is linked to their perceptions of themselves, and that low self-perception will result in low motivation (Bandura, 1993). In 1957 John Atkinson argued that in any situation where performance would be evaluated against a standard of excellence, as is commonly practiced in schools, that the negative incentive value of failure and the positive incentive value of success would motivate individuals to perform in certain ways because the outcome would directly influence their perceptions of self (Atkinson, 1957). Performance in school is linked to ability, which is connected to high/low levels of self-perception (Atkinson, 1957). How one perceives themselves and their abilities influences the level of risk there are willing to take in school (Atkinson, 1957). Therefore, if a student believes that they have low ability and that they will perform poorly, in order to preserve their sense of self-worth, they may choose not to try to begin with.

The rise in attention of understanding individual's beliefs and their relation to learning and motivation has led to an increased focus on belief constructs, including self-efficacy beliefs, beliefs in one's ability to succeed, beliefs about ability and beliefs about knowledge and knowing (Buehl & Alexander, 2009). Similar to Atkinson, Covington's SWT argues that human's greatest priority is to achieve self-acceptance, and in the context of education, where achievement and ability link human value and accomplishment, children carry the feelings of accomplishment or failure developed in school into adulthood (Covington, 1984). Covington argues that self-worth is impacted by one's accomplishments, and that in school, this is measured primarily by grades (Covington, 1984). He also suggests that while effort is directly linked to sense of self-worth, at school this can be problematic because effort is also linked to avoiding teacher punishment, and places the student at risk of failing, triggering humiliation, shame, and perception of low ability (Covington, 1984). The remedy to this is complex and unclear, however, a start would need to include restructuring assessment and evaluation methods. It would also need to consider that self-worth is also influenced by other factors such as sense of belonging which are influenced by complex cultural norms, societal constructs and historical events, that exist in school, but are not necessarily controllable by individuals. Subsequently, the application of SWT according to Covington is oversimplified. Beliefs about ability are impacted by many different factors, and SWT fails to address how variables such as language barriers, poverty, dis/ability and gender, may contribute to and shape the application of self-worth.

Carol Dweck discusses how SWT's of motivation are influenced by one's perception of whether intelligence is fixed/fluid (Dweck & Master, 2009). Entity theorists maintain that intelligence is a fixed attribute of which you either have a lot or you don't, it's unchanging (Dweck & Master, 2009). This is known as a fixed mindset. Incremental theorists however, suggest that intelligence is changeable that can be grown and strengthened over time and that the more effort is applied, the more one will learn and the better one's ability will be (Dweck & Master, 2009). This is known as a growth mindset. Students who are taught to value effort have a growth mindset, and perceive ability to be malleable, whereas those who think intelligence is inherent are believed to exert less effort to succeed and have a fixed mindset (Hochanadel & Finamore, 2015). Individuals with a fixed mindset often perceive behaviour based on past experiences and if those past experiences were negative, they are unable to see change because the negative association has already been made (Hochanadel & Finamore, 2015). Fortunately, it is believed that growth mindsets can be taught, but that the reliance on intelligence tests and standardized exams to predict achievement in the traditional educational context undermine this process, and decrease individual motivation (Hochanadel & Finamore, 2015). Yet, entity theorists having fixed mindsets and incremental theorists having growth mindsets may not apply across all contexts. An individual may have a fixed mindset regarding their intelligence, but a growth mindset regarding their athletic ability. The influence that positive/negative reinforcement have in a certain domain may reflect one's mindset about their ability towards that subject. For instance, consistently positive reinforcement about one's math skills, such as getting A's on tests after having studied for hours, may result in a growth mindset about math,

but negative reinforcement about one's athletic abilities, such as not making the team after having practiced for hours, may contribute to developing a fixed mindset.

Subsequently, beliefs about intelligence and ability will affects student's goals in life and determine their level of motivation, the strategies they use after setbacks, and whether they will give up or persevere in the face of a challenge (Dweck & Master, 2009). If students believe that an ability such as intelligence is fixed, they want to prove they have a lot of it and they want to show off that ability, so they choose performance goals over learning goals. Performance goals seek positive judgments and avoid negative judgments about one's ability, while individuals with mastery learning goals seek to increase their ability or gain new abilities (Dweck & Master, 2009).

SWT's generally place the individual self at the center of achievement, focussing on the development of one's own individual ability. This may promote performance based learning, in which students aim to prove themselves, at the expense of working with and learning from others, which again may be influenced by the socio-cultural, historical and political contexts within which the individual exists. The Western cultures of Canada and America are more individualistic in nature, than collectivist cultures of say Japan and Korea. SWT's aim to promote an individualized approach to motivation, fails to consider collectivist factors that motivate and drive individuals from such cultures. The degree to which a student's behaviour is self motivated is further discussed in Self-Determination theory.

Self-Determination Theory

Self-Determination theory (SDT) dates back to the 1970's and examines how social contexts and individual differences facilitate different types of motivation, specifically autonomous and controlled motivation (Deci & Ryan, 2008). Autonomous motivation is one's willingness to act under their own volition because they find what they're doing to be interesting and enjoyable or consistent with their values (Deci & Ryan, 2015). Autonomous motivation is intrinsic and regulation of behaviour is internalized (Deci & Ryan, 2008). Autonomy orientation is positively related to psychological health and effective behavioural outcomes because individual's life goals focus on personal development and affiliation, which is associated with greater health, well-being and long term performance (Deci & Ryan, 2008). Controlled motivation refers to individual's acting because they feel a pressure to do so, out of compulsion or obligation (Deci & Ryan, 2015). Controlled motivation is extrinsic and is a function of external contingencies of reward or punishment (Deci & Ryan, 2008). Extrinsic goals as pursued by those with controlled orientations focus on wealth, fame and attractiveness, and are pursued to compensate for a lack of a true need satisfaction (Deci & Ryan, 2008).

Niemiec and Ryan argue that the controlling educational climate created in our modern context, where teachers are monitored and students are closely evaluated, undermines intrinsic motivation of students because it stunts the enthusiasm that can be derived naturally from learning, inhibits creativity and replaces both with anxiety and boredom (Niemiec & Ryan, 2009). They further suggest that extrinsic motivation, behaviours performed to obtain some outcome separable from the activity itself, is the least autonomous type of motivation because behaviour is motivated to obtain a reward or

avoid a punishment, and that these behaviours are not well maintained once the reward/punishment has been removed (Niemiec & Ryan, 2009). Therefore, the internalization of extrinsic motivation is required for students to maintain motivation in school, particularly when the subject they are studying is not inherently interesting or enjoyable (Niemiec & Ryan, 2009).

However, the differences between intrinsic and extrinsic motivation are not always so clear. Deci & Ryan argue that there is a SDT continuum in which the truly self-determined individual is guided by intrinsic motivation and the inherent enjoyment and satisfaction of an activity (Deci & Ryan, 2000). Conversely, extrinsically motivated individuals vary in the source of their motivation and what regulates it. Extrinsic motivation that is internally regulated, for the sake of growing awareness and synthesis with one self is most closely linked to intrinsic motivation (Deci & Ryan, 2000). However, the opposite end of extrinsically motivated individuals, behave for compliance and achievement of external rewards or avoidance of punishments (Deci & Ryan, 2000). The overlap on this continuum makes it challenging to isolate and generalize what variables contribute to student motivation.

While SDT theory has been widely applied across various domains from education to health care, it too has some weaknesses that cannot be overlooked. SDT's concept of basic universal psychological needs provide a theoretical foundation for predicting which environmental factors are likely to facilitate or undermine natural processes, such as intrinsic motivation and the internalization of social values (Deci & Ryan, 2002). It also relates motivation and behaviour to psychological development and health, and suggests that there are innate, universal needs (Deci & Ryan, 2002). These innate, universal needs inform education policy which becomes the base upon which schools are designed (Deci & Ryan, 2002). The controversy arises out of whether innate, universal needs exist. Most theories of motivation only recognize that humans are docile and mouldable, but do not assert that there is one universal human nature (Deci & Ryan, 2002). Rather, it is maintained that cultural and social factors shape individual goals and motives (Deci & Ryan, 2002). Subsequently, the underpinnings of SDT must be grounded in more evolutionary psychology that focuses on widely accepted universal features of the human psyche, such as the need to relate to others and the need to experience competence (Deci & Ryan, 2002). Furthermore, SDT suggests that individuals' behaviours are autonomous with their sense of self (Deci & Ryan, 2002). This is controversial because history has demonstrated, repeatedly, that this is not always the case and that in fact, people often identify with certain values that are quite inconsistent with other aspects of their sense of self, which they compartmentalize so as to avoid feeling discomfort resulting from these conflicting values (Deci & Ryan, 2002). For instance, Nazi values endorsed and identified strongly by many Germans in the eradication of an ethnic minority group, which were not integrated with the Germans true sense of selves (Deci & Ryan, 2002). Or most recently American women endorsing and voting for a President who both participated in and openly admitted to misogynistic behaviours which many female voters did not feel aligned with their personal sense of selves, but were willing to support anyways because of the other values he endorsed (Beckett et al., 2016). In such situations, motivation to behave in a certain way is again,

at least partly influenced by socio-cultural, historical and political circumstances that cannot be underplayed.

Conclusion

If motivation is the desire to act or move toward a particular activity, task or goal, just what influences one's desire to do so remains complex. The impact of social context, or even just the perception of social context, can greatly influence what one attributes to their sense of self, as conveyed in AT, their perception of self-worth, as conveyed in SWT and subsequently their mindset and their behaviour to act, as conveyed in SDT. Even more unclear is exactly what role the education system plays in fostering/hindering one's motivation to learn. It is clear however, that the structure of the education system, the influence of educator's actions and attitudes (whether deliberate or inadvertent), and the nature of peer competition can act as detrimental forces on the impact of one's sense of ability and self. Educational policy that is created based on generalizations about universally innate human abilities, needs and drives, makes the question of how to foster intrinsically motivated students in schools even more challenging. Out-of-school programs such as Motivate Canada, which aim to foster motivation in youth by strengthening their self-confidence, and in-school programs, such as Inter-A, which aim to generate intrinsic, mastery orientated motivation, may not address all the complex factors underlying student motivation, but are a good start. Subsequently, motivational theories, despite their inconclusiveness provide hope for students to grow into emotionally well-adjusted adults prepared to constructively contribute to our societies.

References

Atkinson, J. (1957). Motivational Determinants of Risk-Taking Behaviour. Psychological Review, 64 (6), 359-373.

Bandura, A. (2001). Social Cognitive Theory: An Agentic Perspective. Annual Review of Psychology, 52. 1-26.

Bandura, A. (2011). On the functional properties of perceived self-efficacy revisited. Journal of Management, 38 (1), 9-44.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. Educational Psychology, 28, 117- 148.

Beckett, L., Carroll, R., Fishwick, C., Jamieson, A., & Thielman, S. (2016). The real 'shy Trump' vote – how 53% of white women pushed him to victory. The Guardian. Retrieved Nov 9th 2016 from https://www.theguardian.com/us-news/2016/nov/10/white-women-donald-trump-victory.

Buehl, M.M., & Alexander, P.A., (2009). Beliefs about learning in academic domains. In Wentzel & Wigfield, Ch. 22.

Covington, M. V. (1984). The self-worth theory of achievement motivation: Findings and implications. The Elementary School Journal, 85 (1), 5-20.

Deci, E. L., & Ryan, R. M. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American Psychologist, 55(1), 68-78.

Deci, E. L., & Ryan, R. M. (2002). Handbook of self-determination research. University Rochester Press.

Deci, E.L., and Ryan, R.M. (2008). Self-Determination Theory: A Macrotheory of Human Motivation, Development and Health. Canadian Business & Current Affairs Database, 49 (3).

Deci, E.L., and Ryan, R.M. (2015). Self-Determination Theory. International Encyclopedia of the Social & Behavioural Sciences. 11486-491.

Dweck, C. S. (2000). Self-theories: Their role in motivation, personality, and development. Philadelphia, PA: Psychology Press.

Dweck, C.S (2002). The Development of Ability Conceptions. In A. Wigfield & J. Eccles (Eds.) Development of Achievement Motivation: A volume in the educational psychology series. New York: Academic Press (57-88).

Dweck, C.S. and Master, A. (2009). Self-Theories and Motivation, Students' Beliefs about Intelligence. Routledge. In Wentzel & Wigfield, Chapter 7.

Gaier, S.E. (2015). Understanding Why Students Do What They Do: Using Attribution Theory to Help Students Succeed Academically. Research & Teaching in Developmental Education, 31 (2), 6-19.

Graham, S. (1991). A Review of Attribution Theory in Achievement Contexts. Educational Psychology Review, 3 (1), 5-39.

Graham, S., & Williams, C. (2009). An attributional approach to motivation in school. Handbook of motivation at school, 11-34.

Gollwitzer, P.M., & Oettingen, G. (2001). Motivation: History of the Concept. International Encyclopedia of the Social & Behavioural Sciences, 21.

Hochanadel, A. & Finamore, D. (2015). Fixed and Growth Mindset in Education and How Grit Helps Students Persist in the Face of Adversity. Journal of International Education Research, 11 (1).

Mueller, C.M. (1998). Praise for intelligence can undermine children's motivation and performance. Journal of personality and social psychology. 75 (1), 33-52.

Niemiec, C.P., and Ryan R.M., (2009). Autonomy, Competence and Relatedness in the Classroom: Applying Self-Determination Theory to Educational Practice. Theory and Research in Education, 7 (2), 133-144.

Pakdel, B. (2013). The Historical Context of Motivation and Analysis Theories Individual Motivation. International Journal of Humanities and Social Science, 3 (18).

Rotter, J. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs: General and Applied, 80 (1), 609-637.

Schunk, D.H., Meece, J.R., and Pintrich, P.R., (2013). Motivation in Education: Theory, Research and Applications, 4th Ed. Upper Saddle River, N.J: Pearson/Merrill Prentice Hall.

Stone, D. N., Deci, E. L., & Ryan, R. M. (2009). Beyond talk: Creating autonomous motivation through self-determination theory. Journal of General Management, 34 (3), 75.

Tolman, E. (1941). Motivation, Learning and Adjustment. American Philosophical Society, 84 (4), 543-563.

Weiner, Bernard. (2010). The Development of an Attribution-Based Theory of Motivation: A History of Ideas. Educational Psychologist, 45 (1), 28-36.

Wentzel, K.R., & Wigfield, A. (2009). Handbook of Motivation at School. Routledge. In Wentzel & Wigfield, Chapter 1.

Wheeler, L. (2008). Kurt Lewin. Social and Personality Psychological Compass, 2 (4), 1638-1650.