A Combined Model for Understanding Motivation

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Abstract

To design programs and curricula that engage people in activities requires an understanding of how motivation operates in people's lives. There are multiple theories of motivation published in many journals and books from different fields of study (e.g., education, psychology, sociology). A substantial investment of time is needed to review this literature – time which professionals often do not have. In this paper, major theories of motivation are reviewed and then integrated into a Combined Model for Understanding Motivation that can be used in the design, implementation and assessment of programs in business, education and other fields. This model gives professionals a way of understanding how motivation operates and that is intuitive and based on research.

Introduction

Maehr (1984, 115) characterized the importance of motivation to human endeavors as follows,
The topic of motivation stands as singularly interesting – and important – in the realm of human affairs. Artists and musicians worry about the loss of creative verve and the will to keep on performing (see Henahan, 1982). The business establishment worries about the loss of productivity and quickly assigns an important role to motivation (Ouchi, 1981).

Student motivation is assigned a similar, central role in education in schools. Many researchers characterize it as being the key contributor to student achievement (Boaler, 1999; Csikszentmihalyi, 1990b; Dewey, 1913; Zimmerman, Bandura, & Martinez-Pons, 1992). Others assert that the current school structures diminish student motivation (Deci, Koestner, & Ryan, 2001; Falk & Dierking, 2002; McCombs, 2007; McCombs & Whisler, 1989). Csikszentmihalyi frames the student motivation problem in schools by stating, "The chief impediments to learning are not cognitive. It is not that students cannot learn; it is that they do not wish to." (pg. 115)

To understand how artists, business workers and students become motivated to work and learn, researchers and professionals need a model for understanding how motivation operates. Unfortunately, the literature provides no simple way for such professionals to access motivation research and theories. There are multiple theories of motivation. The authors of these theories propose different, often related ways of understanding how people become motivated, use a specialized vocabulary for discussing their theories, define different constructs for building their motivation models, and publish their models and theories in journals and books in multiple fields of study (e.g., education, psychology, sociology). Professionals committed to incorporating theories of motivation into their work, must invest a substantial amount of time and energy to reviewing this literature in order to develop an understanding of the multiple models and approaches to studying motivation. Such professional leaders will likely find this investment of time unrewarding and select a single motivation model for their use. This strategy connects practice to some of the research on how motivation operates, but as will be shown below, omits complementary models that could contribute to building a more complete understanding of how and why people engage in work, learning and other activities.

By providing a review of major theories of motivation, this paper gives professional leaders and researchers a way of examining different motivation theories side-by-side, reviewing their similarities and differences, and seeing how together they contribute to an understanding of how people make sense of engaging in pursuits and activities. This paper goes on to present a *Combined Model for Understanding Motivation*, which integrates two of the major motivation theories into a single model for understanding how motivation operates. This *Combined Model* may help leaders in business, education and other fields as they strive to incorporate an understanding of motivation into their work of researching, designing, and assessing programs.

1. Review of Major Motivation Theories

According to the collaborative work sponsored by Murphy & Alexander (2000)[1] motivation is defined as the "process involved in the direction [choice of activities], vigor, and persistence of behavior" (pg. 28, brackets added).

Understanding how this process operates, the social and individual influences that mediate it, and how motivation is expressed in institutions and other situations is at the heart of the study of motivation. Two different focuses for explaining how motivation operates have emerged in the literature: one focusing on people's interests and goals, and a second focusing their beliefs and values. These two areas of focus take different approaches to framing and understanding how motivation operates and are reviewed in different sections below.

2.1. Interests and Goals

2.1.1. Interests. According to Murphy and Alexander's work, "interest "signifies the processes by which the underlying needs and desires of learners are energized" (pg. 28). Dewey (1913), who produced one of the first comprehensive theoretical descriptions of the effects of interest on student learning, similarly defined interest as internally motivated activity. He asserted that children, left to their own devices, are constantly engaged in what they find meaningful and interesting. When students are given or choose tasks in which they are genuinely interested, Dewey reported that they are actively and enthusiastically engaged. Krapp, Hidi, & Renninger (1992) combine this definition of student interest with the student's environment to build a model for student motivation (Figure 1). Other theories of motivation expand on this simple relationship between interests, environment, and activity to explain what motivates people. Dewey (1913), and those who see interest as the true motivation for learning, view education as the *process* of engaging in activities for growth and enlightenment. Engaging in interests, according to Dewey, is a lifelong pursuit and he describes interest as, "not just one thing; it is a name for the fact that a course of action, an occupation, or pursuit absorbs the powers of an individual in a thorough-going way" (pg. 65). Csikszentmihalyi (1990b) describes the concept of *flow* as "the positive aspects of human experience – joy, creativity, the process of total involvement in life" (pg. xi). He asserts that schools ought to focus on helping children find the interests that involve them in *flow*, and that by doing so, schools can become places of enjoyment that help lead students to find satisfying lives (Csikszentmihalyi, 1990a).

2.1.2. Goals. Goal theory proposes that people are motivated to complete tasks by personal goals (Schunk, Pintrich, & Meece, 2008). These authors define motivation as "the process whereby goal-directed activity is instigated and sustained" (pg. 4). Murphy and Alexander's work (2000) defines student goals as, "What students generally want to achieve in their classes" (pg.28). These goals may be social - involving the pursuit of positive or pleasing relationships with others (e.g. making friends, adult approval), academic - seeking the successful completion of school programs (e.g. graduation, college entrance), task specific (e.g., completing an assignment, getting a certain grade in a class), or likely a combination of all of these types of goals (Ames, 1992; Covington, 2000; Wentzel, 2000). The proponents of goal theory assert that the goals that students set for themselves (consciously or unconsciously) are central to them becoming energized to participate in school activities.

Dewey's writings (1913), in part, are consistent with goal theory and he asserted that people commonly perform tasks in which they have little intrinsic interest. He referred to these tasks as having *indirect interests* and suggested that the power of such indirect interests to keep a person involved in an activity depends on the person's investment in creating the product which results from the activity. Dewey, however, went on to criticize the use of goals as a primary method of engaging students in school activities. He asserted that when students are compelled to perform tasks that do not interest them, they divide their focus – giving only partial attention to the required task while focusing on other people, activities, or objects around them that catch their interest. It is this partial focus on learning, which is common in schools, that causes many researchers to conclude that goals alone are ineffective in promoting student engagement and learning (Csikszentmihalyi, 1990b; Falk & Dierking, 2002; Mills, 1991; Ryan & Deci, 2000; Vansteenkiste, Lens, & Deci, 2006). For those who agree with these views, goal theory is an incomplete way of viewing how and why students become energetically involved in school.

2.1.3. The Self-Determination Continuum: Combining Interests and Goals. The Self-Determination Continuum (Deci & Ryan, 2002) provides a way of combining interests and goals into a single understanding of the process by which people become positively engaged in work, school and other activities. This model proposes that extrinsic motivators (i.e., goals) are on a continuum with intrinsic motivators (i.e., interests) (Figure 2). According to this model, people's interests are the strongest motivators of their actions, while a goal's power to energize people's actions depends on the extent to which they internalize the goal as their own. These authors also link the degree to which an individual regulates and controls their involvement in activities with their motivation to engage in the activity. In Figure 2, the Self-Determination Continuum is shown as having three parallel strands: motivation, regulation, and self-determination.

The left side of the figure depicts situations when tasks do not interest people, when they have no personal goals about completing the tasks, and little control over whether they participate. In these "Amotivation" situations, people can be compelled to participate in activities only by the promise of reward or threat of punishment or sanction. Moving across the Continuum into the "Extrinsic Motivation" middle, one comes to situations where the people may not be very interested in a subject or task, but realize that completing it will further their personal goals. In these situations, the people choose to participate in activities to satisfy these goals. Finally, on the right side of the Continuum is "Intrinsic Motivation" where people choose to fully engage in tasks, classes, or activities because of their vital interest in them and, as Csikszentmihalyi (1990a) proposed, the joy they receive from participating in these activities. The Self-Determination Continuum provides a framework for valuing both goals and interests. This framework places intrinsically interesting subjects and tasks in a position of primacy in attracting people's energies and attention while acknowledging that goals can energize people to participate in work, school and other activities.

2.2. Beliefs

Interests and goals clearly mediate a person's motivation to engage in activities. The study of these influences, however does not take into account people's beliefs about their abilities to succeed in an activity or the value of such success to their future lives. In this section, a person's beliefs and how these beliefs impact their engagement in activities are examined.

2.2.1. Self-Efficacy Beliefs. Murphy and Alexander's work (2000) adopted Bandura's definition of self-efficacy as "people's judgments of their capabilities to organize and execute courses of action to attain designated types of performances" (pg. 29). People's beliefs about their ability to succeed at an activity affect their motivation to engage in the activity. Multiple studies show that when students believe they are capable of successfully completing work or school tasks (high self-efficacy), their engagement and performance levels increase (e.g., Fouad & Smith, 1996; Meece, Wigfield, & Eccles, 1990; Pintrich & DeGroot, 1990; Zimmerman, et al., 1992; Zimmerman & Martinez-Pons, 1990). In these studies, self-efficacy was often the primary predictor of engagement in activities.

2.2.2. Outcome Expectancy Beliefs. Bandura (1997) further asserted that outcome expectancy beliefs are a necessary companion to self-efficacy. He defines outcome expectations as beliefs about "the outcomes that flow from a given course of action". When people believe that their lives will be benefited by succeeding in an activity, they are much more likely to positively participate in that pursuit.

2.2.3. Social Cognitive Theory. In this theory, Bandura (1995) proposes that a combination of self-efficacy and outcome expectancy beliefs is required to create within a person the motivation to engage in activities and tasks (Figure 3). Following this theory, for a person to be motivated to participate in an activity, they must believe in their ability to succeed *and* believe that such success will benefit their lives (upper right corner of Figure 3). Low self-efficacy discourages people from engaging in activities because they don't believe they can succeed (lower half of diagram) and low outcome expectancy likewise discourages engagement because people don't believe that success will benefit them (left side of diagram). The Social Cognitive Theory for motivation takes into account people's beliefs about the abilities and what will help them in life. This theory, however, does not account for a person's interests or personal goals.

3. Combined Model for Understanding Motivation

The Self-Determination Continuum and the Social Cognitive Theory both have been shown to explain people's motivation to engage in activities (e.g., Bandura, 1995; Reeve, Deci, & Ryan, 2004). The authors of each of these theories, however, explain motivation from their own points of view and do not include the contributions of the other theory. The debate about whether beliefs or interests and goals are central to understanding motivation is similar to many other controversies, in that understanding the "truth" about the issue comes from working to "discover the reality to which each belongs" (Dewey, 1900, pg. 182). In an effort to integrate the contributions of these two major theories on motivation, a *Combined Model for Understanding Motivation* is proposed (Figure 4). In this model, the Self- Determination Continuum for interests and goals (horizontal axis) is combined with the self-efficacy and outcome expectations beliefs of the Social Cognitive Theory (vertical axes). According to this *Combined Model*, for people to be strongly motivated to participate in activities and tasks, they must be high on the Self-Determination Continuum (towards intrinsically motivated) *and* believe in their abilities to accomplish the work (positive self-efficacy) *and* believe that such an accomplishment leads to better lives for themselves (positive outcome expectations). Self-efficacy and outcome expectancy beliefs are put next to each other as twin vertical axes to acknowledge that they are both required for sustained motivation.

Combining these two theories of motivation, acknowledges each theory's importance in explaining motivation while showing that interests, goals and beliefs must *all* be considered to gain a complete understanding of how motivation operates. For example, a person with a high interest in the arts (high on the self-determination continuum), but with strong beliefs that he cannot do art or make a livings at it, will likely not pursue a major in the arts in college. On the other hand, a person who believes that she is good in science and that majoring in the sciences will lead to a good paying job, may not choose a science career path because she is much more interested in working with people. Understanding motivation requires combining motivation theories rather than choosing between competing ones. The *Combined Model for Understanding Motivation* is proposed as a way to helping people to "discover the reality to which each belongs" (Dewey, 1900, pg. 182).

3.1. Implications for Program Design and Evaluation

The *Combined Model for Understanding Motivation* asserts that interests, goals and positive beliefs are *all* necessary for people to be strongly motivated to engage in tasks and activities. This implies that the design and evaluation of public and private programs, must take into account all of these mediating factors. For example, it is not useful to design school programs to interest students in science and math without also helping them develop positive beliefs about their ability to succeed in these classes, to value such success, and to set goals to succeed. Recruiters trying to attract people to enlist in the armed forces must convince potential enlistees that they have the ability to succeed in the military, that military service will benefit their future lives, and that such service will be interesting and rewarding. Evidence of the essential importance of interests, goals, and beliefs for motivation has been present in literature for years (e.g., Deci & Ryan, 1985; Eccles, 1983; Zimmerman, et al., 1992), but this evidence has been difficult for those who are not motivation researchers to access. Experienced professionals have long intuitively realized that programs designed to engage people must interest them in the subject matter, help them set goals for engaging in the pursuit, convince them that they have the ability to succeed at reaching their goals, and that such success will improve their lives (e.g., Escalante & Dirmann, 1990; Moses, 1994). The *Combined Model for Understanding Motivation* helps make the motivation research more assessable professionals and confirms their intuitive judgments that interests, goals, and positive beliefs must all be addressed to engage people in programs and activities.

4. Conclusion

The goals of this paper are to make the motivation research and theories more understandable and assessable to professionals and to offer them a model that facilitates the incorporation of this important research into the design, implementation, and evaluation of public and private sector programs. The *Combined Model for Understanding Motivation* links two major motivation theories in a way that highlights the co-requisite and essential properties of interests, goals and beliefs. This paper condenses and combines two complex and comprehensive motivation theories into a single model. This reduction is not meant to diminish the contributions of the authors that built these theories. The research of these scholars has added substantially to our understanding of how people become motivated to engage in the activities of their lives. This paper will have been successful if it helps professionals make sense of the detailed and dispersed information on motivation that now exists in the literature and gives them a way of applying this important research to their work in designing, guiding and evaluating the programs in their disciplines.

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Footnote

[1]Murphy and Alexander (2000) reviewed the motivation literature and produced a list of "fundamental terms within the motivation literature associated with the study of academic achievement or academic development" (pg. 3). They then consulted with the experts and researchers in the field of motivation and compiled a consolidated list definitions for these terms. Murphy and Alexander's work was an attempt to pull together the concepts and language used in the motivation research to inform and clarify future research and practice.

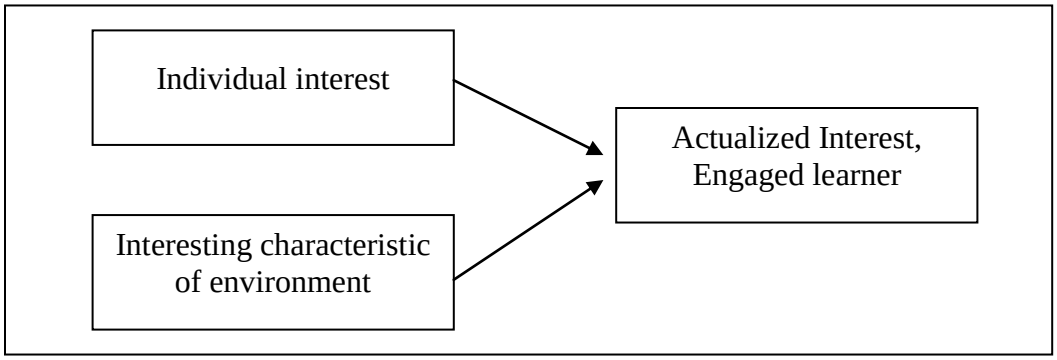

Figure 1: Interest theory model (Krapp, Hidi, & Renninger, 1992).

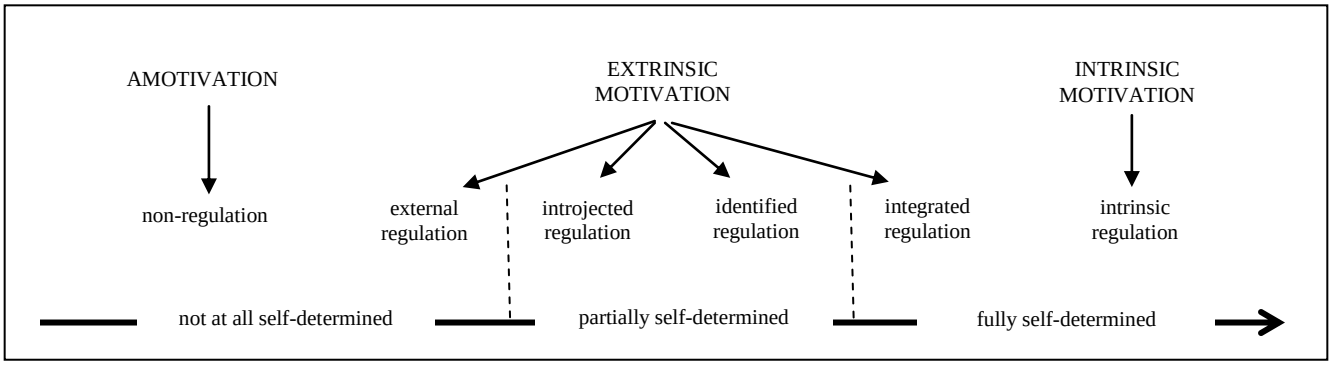

Figure 2. Self-determination continuum of types of motivation (Reeves, Deci, & Ryan, 2004)

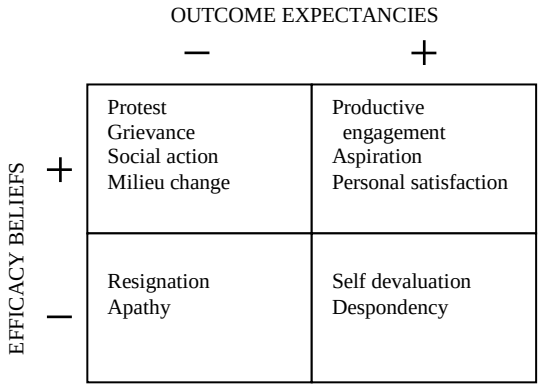

Figure 3. Social Cognitive model of behavior (Bandura, 1997)

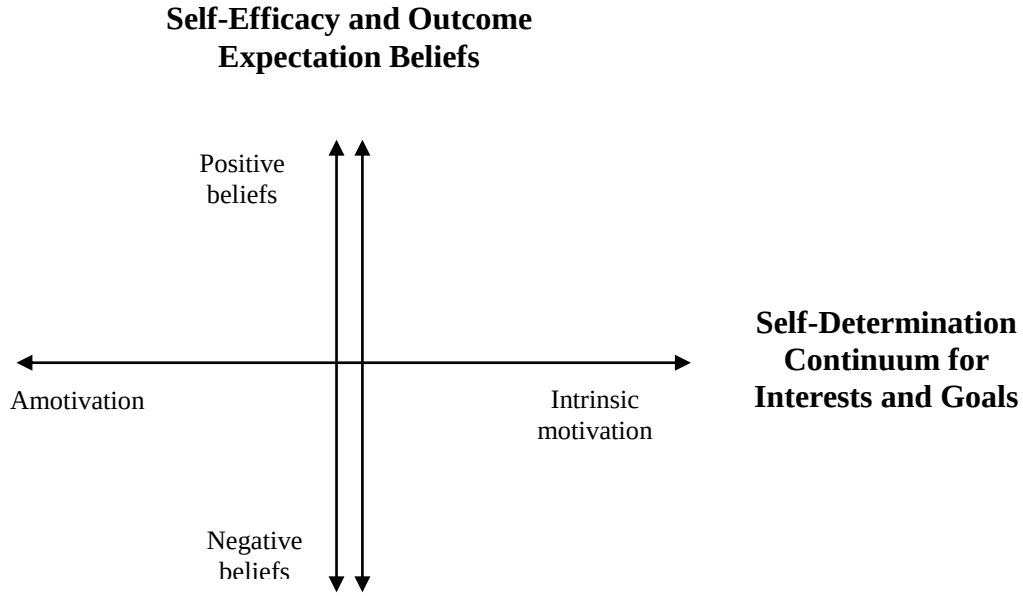

Figure 4. Combined Model for Understanding Motivation.