Motivation and engagement: Same or different? Does it matter?☆

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ABSTRACT

Based on a sample of 5432 high school students, findings from CFA showed that well-established constructs can be demarcated into adaptive and maladaptive motivation and engagement. SEM showed there is commonality in the extent to which socio-demographic, prior achievement, and personality variables predict motivation and engagement, but there are also differences in the extent to which some motivation and engagement factors are predicted by these antecedents. There are also commonalities in the extent to which motivation and engagement factors predict outcomes; however, when considering outcomes in more thematic terms, some divergence in predictive patterns emerges. Further, based on a longitudinal sub-sample of 2002 high school students, model fit and explained variance provide tentative support for the claim that prior motivation is an impetus for subsequent engagement; however, there is also a role for prior engagement predicting subsequent motivation, ultimately suggestive of a cyclical process. Discussion centers on how these motivation and engagement alignments and distinctions matter.

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There has been ongoing debate as to whether and how motivation and engagement differ (Reschly & Christenson, 2012). Major theoretical frameworks have been developed to articulate what motivation and engagement factors exist and where they reside in the learning process (e.g., Fredricks, Blumenfeld, & Paris, 2004). Inappropriately or erroneously conflating (or differentiating) motivation and engagement can perpetuate theoretical ambiguity, raise validity challenges for measurement and research, and lay an inadequate foundation for educational intervention (Martin, 2012; Reschly & Christenson, 2012). There are many theories and conceptual frameworks that seek to describe and explain academic motivation and engagement. With a view to gaining greater clarity in this space, there have been calls for more integrative approaches to motivation and engagement research and theorizing (Martin, 2007, 2009; Murphy & Alexander, 2000; Pintrich, 2003; Reschly & Christenson, 2012).

As integrative approaches are pursued, an important issue to address is the relative alignment and diffusion of motivation and engagement constructs. Using an existing multidimensional motivation and engagement model (the Motivation and Engagement Wheel; Martin, 2007, 2009) as a guiding framework, exploring these alignments and distinctions is the major purpose of the present study. In so doing, we seek to answer the following questions: How distinct are motivation and engagement? Do different socio-demographic and individual differences predict motivation and engagement constructs in aligned or distinct ways? Do motivation and engagement constructs predict academic and personal outcomes in aligned or distinct ways? Is motivation more salient in predicting subsequent engagement – or vice versa? In addressing these questions, we aim to further contribute to the ongoing debate and deliberations playing out in the motivation and engagement domain. Through addressing these questions, in numerous ways the study seeks to extend prior work including: explicit attention to better understanding higher order motivation and engagement dimensions (most prior attention has been given to first-order components), exploration of personality predictors, attention to a wider set of outcome factors (e.g., memorization, elaboration), and examination of the longitudinal ordering of motivation and engagement.

1. Theories explaining and describing motivation and engagement

For the purposes of this study, motivation is defined as the inclination, energy, emotion, and drive relevant to learning, working effectively, and achieving; engagement is defined as the behaviors that reflect this inclination, energy, emotion, and drive (Martin, 2007, 2009). The bulk of theorizing in this space has focused on motivation. Engagement has been present in this research, but only recently has it received more substantial theoretical attention (e.g., see Fredricks et al., 2004; Reschly & Christenson, 2012). Accordingly, we first review the majority concepts in motivational theorizing. We then summarize the more recent ideas on academic engagement. In regard to motivation, Pintrich

(2003) emphasized the importance of considering and conceptualizing motivation in terms of salient and seminal theorizing related to: self-efficacy (and related expectancies), valuing, need achievement, self-worth, attributions, control, goal orientation, self-regulation, and self-determination. The present study explores a framework seeking to integrate this theorizing and in doing so, examines the extent to which motivation and engagement can be considered distinct – and if so, how this distinction is empirically manifested. Following Pintrich's (2003) emphasis on core concepts in motivational science (e.g., self-efficacy, valuing, need achievement, etc.), we briefly review these theories as a core foundation for understanding students' motivation. We then review some recent work into engagement. Bringing key elements of motivation and engagement perspectives together, we then describe an operational model (the Motivation and Engagement Wheel; Martin, 2007, 2009) that seeks to synthesize these theoretical perspectives.

1.1. Self-efficacy and expectancy-value theories

In most of the motivation and engagement literature, appraisals of one's competence are salient. These take the forms of self-concept, perceived competence, self-efficacy, and expectancies. In this article, the focus is on self-efficacy (see Marsh, 2007 for a review of self-concept; Harter, 1999 for a review of perceived competence; Wigfield & Eccles, 2000 for a review of expectancies). Self-efficacy refers to the appraisals students make about their task-related academic capacity. According to Bandura (2001; Schunk & Mullen, 2012), students high in self-efficacy function better in the classroom (usually by way of elevated effort and persistence) and more effectively respond to challenge through enabling and agentic cognitive and emotional processes. Other theoretical perspectives identify factors that operate in tandem with self-efficacy to yield desirable academic outcomes. One salient 'additive' model is expectancy-value theory (Wigfield & Eccles, 2000). Here, alongside positive expectations based on one's perceived competence, the important role of 'valuing' is considered. Accordingly, students holding high task-related expectations (or, self-efficacy) and who also value the task are more motivated to carry out that task and achieve at a higher level (Martin, 2007, 2009; Wigfield & Eccles, 2000).

1.2. Need achievement and self-worth motivation theories

Need achievement and self-worth motivation theories characterize students in terms of how they perceive and respond to success and avoid failure (Covington, 2000). Following from this, three major student typologies emerge: success-oriented, failure-avoidant, and failure-accepting (Martin & Marsh, 2003). Students who are success-oriented are proactively oriented towards their studies, are optimistic and energetic when responding to academic setback, and reflect high self-efficacy and sense of control or agency (Martin, Marsh, & Debus, 2003). The failure avoider tends to be characterized by a fear of failure that can play out in many ways, including self-handicapping (i.e., actively handicapping one's chances of success to have an excuse in the event of poor performance – e.g., through procrastination or insufficient study) (Covington, 2000; Martin & Marsh, 2003). The failure accepter has abandoned effort and given up, often seen in terms of disengagement or learned helplessness (Covington, 2000).

1.3. Attribution and control theories

The causes individuals attribute to events have a significant bearing on their subsequent behavior, cognition, and affect (Weiner, 2010). Attribution theory formally conceptualizes the causes individuals ascribe to past events. Under attribution theory, causes vary along three main dimensions: stability, locus, and controllability (Weiner, 2010). Stability refers to the extent to which the cause is temporary (vs. consistent across time), variable (vs. unable to change), and situational (vs. global). Locus refers to the extent to which a cause is seen by the individual as

internal or external. The control dimension refers to students' belief that they have significant determination and influence in attaining success or avoiding failure. In contrast, an uncertain sense of control reflects an uncertainty about one's capacity to attain success or avoid failure (see Patrick, Skinner, & Connell, 1993).

1.4. Goal orientation and self-regulation theories

Goal (orientation) theory seeks to explain the reasons and underlying goals students have for their achievement-related behaviors. The "classic" goal orientation framework focuses on mastery and performance goals. Subsequent theorizing and research suggested an extension on this perspective that incorporated avoidance and approach dimensions (Anderman & Patrick, 2012; Elliot, 2005). Mastery approach reflects goal striving aimed at effort, skill development, and learning. Performance approach reflects goal striving aimed at demonstrating relative ability and outperforming others (Elliot, 2005). Performance avoidance reflects goal striving that is focused on the need to avoid appearing incompetent or to disappoint others (Elliot, 2005). Mastery avoidance reflects goal striving that is centered on a desire to avoid a loss of competence, mastery, skill, or knowledge (Elliot, 2005). It is also useful to consider ways that goal orientations are operationalized in students' academic lives and the other motivation and engagement theories that this invokes. Taking one of the more adaptive of the goals – mastery approach (Martin, 2013a) – as a case in point, it has been proposed that self-regulatory theories have been influential in identifying key factors and processes by which mastery goals are operationalized by students. For example, Zimmerman and Campillo (2003, see also Zimmerman, 2002) developed a model reflecting the phases and subprocesses of self-regulation. The model demarcated inner psychological factors such as motivation from the more action-oriented engagement factors. Accordingly, it represented a "forethought phase" comprising motivation (e.g., goals, self-efficacy) and a "performance phase" comprising the efforts and engagement to act in a self-regulated way. Factors such as planning and monitoring behavior, task management, and persistence (e.g., Martin, 2013b; Zimmerman, 2002) are pertinent.

1.5. Self-determination theory

Self-determination theory (SDT; Deci & Ryan, 2012; Ryan & Deci, 2010) distinguishes between intrinsic motivation (motivation reflecting an inherent interest in or satisfaction with an activity) and extrinsic motivation (motivation with more of an external impetus such as reward, approval, or grades). SDT also emphasizes individuals' psychological needs and the importance of meeting these needs for optimal wellbeing (Reeve, 2012). Three needs are particularly key: the need for autonomy, the need for competence, and the need for relatedness. According to Ryan and Deci (2010), "intrinsic motivation flourishes under conditions supporting autonomy and competence and wanes when these needs are thwarted" (p. 174). In terms of recognizable motivational factors, two of these needs are salient: the need for competence (including self-efficacy) and the need for autonomy (including control).

1.6. Demarcation of motivation and engagement

As noted, the bulk of research over the past few decades has focused on motivation. Also as noted, engagement has been present in this research, but not a source of major conceptualizing. More recently, researchers have sought to provide clearer ideas on how motivation and engagement are distinct. Here we explore some of these ideas as relevant to the present study.

Reeve (2012) has observed that motivation comprises "private, unobservable, psychological, neural, and biological" factors, whereas engagement comprises "publicly observable behavior" (p. 151). Similarly, Cleary and Zimmerman (2012) identified engagement as