Educational Psychology Review (2024) 36:23
https://doi.org/10.1007/s10648-024-09856-3

COMMENTARY

Hybridizing Psychological Theories: Weighing the Ends Against the Means

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Accepted: 25 January 2024 / Published online: 16 February 2024

Abstract

In this commentary, I explore the contributions of the articles in this special issue from the vantage point of a theorist, researcher, and educator invested in student learning and academic development. First, I consider how these writings differentiate on the basis of the *means* authors applied to achieve the special issue goal of dismantling theoretical siloes and forwarding alternative models that strengthen the construct strains that exist in the educational psychology literature. Second, I position the articles in this special issue along a motivation-nonmotivation continuum, which describes the emphasis authors placed on motivation constructs and theories. Finally, I bring my ideas about these thought-provoking articles back to my personal investment in student learning and achievement to question the viability of the new theoretical variants that the contributing scholars have proposed.

Keywords Learning · Academic development · Motivation · Achievement

There is no question that the aims of this special issue, "Hybridizing Motivational Strains: How Integrative Theoretical Models Can Advance the Motivational Sciences" (King & Fryer, this issue), are timely and relevant to the field of educational psychology and to educational research more broadly. Specifically, what the editors asked of the scholars whose articles populate, this special issue was nothing short of dismantling theoretical siloes formed from years of conceptual and methodological inbreeding, especially those repositories of motivation theories and constructs. In their place, what was envisioned were alternative structures born from the integration or hybridization of cross-disciplinary content extracted from such diverse fields as pedagogy, human emotions, strategic processing, and development. When unveiling their alternative structures, contributors were asked to address challenging and provocative questions about their new theoretical specimens. Those questions

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tapped into the convergences and divergences their syntheses revealed, the ontological and epistemological bases of their cross-disciplinary approach, and the construct and predictive validity of their novel offerings. As I said, these were undeniably challenging and provocative questions, even for the seasoned contributors to this special issue.

With the purpose and expectations of this special issue in mind, I have chosen to frame this commentary from the vantage point of a theorist, researcher, and educator whose overarching motivation has been to unearth the constructs, principles, and procedures that foster learning and academic development. I hold to this goal regardless of learners' differences, their sociocultural backgrounds, the content domain, or the theoretical framework from which those constructs, principles, and procedures arise. Given this vantage point, I embrace the challenge of discerning the genetic composition of the hybridized or integrated theories described in this special issue and predicting the likelihood that these new theoretical offspring will flourish within the educational landscape. Even more importantly, I assess whether the offspring produced by theoretical recombination or grafting is apt to bear fruit in the form of enhanced learning and academic development for all students.

Hybridization Versus Integration

In proposing this special issue, King and Fryer (this issue) wrote compellingly about the need for hybridization and integration in service of alternative models that reposition existing motivation theories in cross-disciplinary space. However, hybridization and integration are quite distinct processes that resolve into outcomes that can either take the form of new variants or new configurations, both of which are evident among the contributions to this special issue. Elaborating on the editors' metaphor, let me clarify the distinction I am drawing here between hybridization and integration and why it is of significance to insights garnered from the articles comprising this issue.

The purpose of hybridization in the biogenetic sciences is to create a new species with select properties of the parent organisms. Through hybridization, the desired outcomes are thus new specimens or variants that are superior to the parent organisms for select features, traits, or strains. Of course, hybridization techniques are by no means foolproof. The resulting specimens or variants may well fail to flourish or bear fruit. Applying this metaphor to the current offerings in this special issue, the expectation would be to see parent theoretical models with distinct properties selectively combined in a manner that strengthens the motivation features, traits, or strains in the emerging specimen. Even more than strengthening the motivation elements in existing models, however, I consider whether this exercise in hybridization would likely bear fruit in the form of improved learning and academic development.

In contrast to hybridization, integration is a process that is typically less species-intrusive and less technically precise. Examples of integration in agriculture, for example, would be when pest-resistant plants are placed around the perimeter of a plot or when certain non-native species are combined with native plants. Cross-pollination could result from the combinations, but such outcomes are not purposefully

orchestrated. In the context of this special issue, theoretical integrations would be more apt to stay within a given field, such as achievement motivation, rather than venture into diverse territories, such as teacher beliefs and pedagogical practices or cognitive and metacognitive strategies. Further, rather than aim for a new specimen, integration researchers would be seeking to produce stronger or more viable variants of existing variants.

How do these analogical contrasts between hybridization and integration extend to the articles in this special issue and to the contributions those articles make to the new "strains" that the editors envisioned? I look first at the theoretical integrations before turning to hybridized models. There were several articles that clearly adopted integration as the *means* to achieve the *ends* sought in this special issue (Elliot & Sommet, this issue; Skinner, this issue). Other authors took on the challenge of strengthening motivational strains by embracing hybridization as their preferred technique (Dinsmore et al., this issue; Noetel et al., this issue). Nonetheless, even within these two broad categories of theoretical consolidation and cross-breeding, there were marked differences in these authors' methods and in the explanatory and predictive findings they forwarded.

Theoretical Integrations

As noted, several contributors following the integration path did not attempt to produce new theoretical models. Rather, they set out to illustrate how models they had already generated and revised served the ends of this special issue (Elliot & Sommet, this issue; Martin, this issue). For example, Elliot and Sommet (this issue) reoriented the Hierarchical Model of Achievement Motivation (HMAM; Elliot & Thrash, 2001) that has been used to explore the associations among related achievement motivation constructs such as approach-avoidance goals and the research on emotions (Elliot & Church, 1997; Elliot & Pekrun, 2007; Pekrun et al., 2006, 2009). In the current iteration, Elliot and Sommet (this issue) centered on achievement goals as the model linchpin and offered a detailed amalgamation of motivation constructs, along with descriptive models of their proposed interplay. While certainly integrative, the rich description of the HMAM does not step far outside the domain of motivation. Also, "learning" is mentioned only once in the entire document, and developmental concerns are primarily relegated to future directions.

In a similar vein, Martin (this issue) revisits two of his existing models that exemplify *intra-domain integration*, one dealing with motivation and one focused on instruction, namely, Motivation and Engagement Wheel (Martin, 2007) and Load Reduction Instruction (LRI; Martin, 2016; Martin & Evans, 2021). Through what he labels as *inter-domain integration*, Martin explains how the combination of these two extant models illustrates how motivation and engagement share certain underlying root structures with instruction aimed at cognitive load reduction. In contrast to the Elliot and Sommet article (this issue), Martin (this issue) references learning quite frequently. However, most of those referrals are in the form of instructional approaches, such as explicit instruction, discovery learning, and independent learning, and their hypothesized relation to cognitive load.

The most comprehensive attempt at integration was proposed by Skinner (this issue). As with Elliot and Sommet (this issue), Skinner's detailed reconfiguration remained within the domain of motivation and, more specifically, achievement motivation. Much as Alexander et al. (2009) sought to do for diverse theories of learning, Skinner set out to map constructs pertaining to achievement motivation within a theoretical landscape framed by four guideposts, *motivational resilience*, *academic identity*, *complex social ecologies*, and *developmental embeddedness*. Rather than follow pathways carved by those who feel that the solution to addressing the plethora of motivational constructs, conceptual fragmentation, and theoretical siloes is to pare down popular theories to their simplest structures, Skinner (this issue) allowed their complexities to manifest. She then used those complex features to discern similarities and differences across constructs as they related to context, self, action, and outcomes to forge what she labeled as *principled integration*. When it came to learning and academic development, Skinner projected that such principled integration within achievement motivation could "foster the design of even more effective classroom interventions, and communicate even more meaningfully with educational stakeholders, especially teachers and parents" (p. nd).

Theoretical Hybridizations

The other contributors to this special issue demonstrated some degree of hybridization in their efforts to forge alternative theoretical strains (Dinsmore et al., this issue; Fryer et al., this issue; Hornstra et al., this issue; Noetel et al., this issue). These hybridizations differed not only in the authors' primary aims but also in specific dimensions, such as the number and forms of variables or constructs modeled. For example, Dinsmore et al. (this issue) grafted components of the Model of Domain Learning (Alexander, 1997, 2003) and Approaches to Learning (Marton & Säljo, 1984) together to produce the MDL-SAL. This new model was meant to explain better how metacognitive monitoring and metacognitive control influence learners' surface- and deep-level processing over the course of their academic development. Dinsmore et al. had initially set out to fuse Winne and Hadwin's (1998) COPES (conditions, operations, products, evaluations, and standards) model with the MDL-SAL models. However, these authors found that merging a stage model (the MDL) with a cyclical model (COPES) was overly challenging. Nonetheless, the authors were hopeful that their particular hybridization would better explain the interface of learning and cognitive-metacognitive processing over time.

Fryer and Leenknecht (this issue), like Dinsmore et al. (this issue), sought to fuse aspects of three theoretical models to generate a more robust explanation for the development and nurturance of students' ability beliefs. The models they explored by means of a meta-analytic approach were Bandura's (1977) Social Cognitive Theory, Connell's (1985, 1990) Perceived Control Theory, and Skinner and Belmont's (1993) Self-System Model of Motivational Development (SSMMD). The strains from these models that Fryer and Leenknecht (this issue) targeted in their hybridization were teacher clarity and teacher feedback as contributors to student achievement, with self-efficacy as a mediating factor and

perceived control theory "as a bridge from teacher clarity and feedback to self-efficacy" (p. nd). The authors concluded their review with what they creatively call "recipe cards" for testing their iteration of SSMMD model.

As with Fryer and Leenknecht (this issue), Hornstra et al. (this issue) merged literature from teaching and teacher education with inquiry centered on learners. In this hybridization, the genetic substances came from the theoretical and empirical work on Teacher Expectations (Harris & Rosenthal, 1985; Rosenthal & Jacobson,1968; Rubie-Davies & Rosenthal, 2016) and Self-Determination Theory (SDT: Deci & Ryan, 2000; Reeve et al., 2014; Stroet et al., 2013), which the authors characterize as a macrotheory of motivation and well-being. Even more specifically, these authors were testing the effects of combining the strands of High Expectation Theory (HET: Cooper & Good, 1983; Rubie-Davies, 2015; Salomon, 1981) with Basic Psychological Needs Theory (BPNT: Vansteenkiste et al., 2020), which is one of the theoretical variants of SDT. In their in-depth exploration, Hornstra et al. (this issue) considered the viability of their theoretical cross-breeding as well as the contributions and conundrums that seemed likely to result from the HET-BPNT blending. The fruits that the authors hoped would emerge were described in terms of positive student academic and sociopsychological outcomes. Nonetheless, these authors were forthcoming about the theory-to-practice threats that inevitably must be weighed. The threats they discussed seem inherent to any of the theoretical models in this special issue that relied on beliefs and the measurement of beliefs. Still, these authors remained optimistic that their particular theoretical variant would prove more resistant to such threats than either of the parent theories.

The approach to hybridization that Noetel et al. (this issue) took was quite ambitious in that they set out to extract teacher behaviors from four "prominent" motivational theories that they contended would best predict student engagement among Year 7 students enrolled in physical education classes in low socioeconomic Australian schools. The four theories that they selected were self-determination theory, achievement goal theory, growth mindset theory, and transformational leadership theory (which has its roots in organizational psychology). In total, 83 physical education teachers and 1324 students from 17 of the 130 eligible schools participated. Students' affective, behavioral, and cognitive engagement as related to physical education was surveyed at the end of Year 6 and again at the end of Year 7 using a modified version of the Student Engagement in School measure (Lam et al., 2014).

Midpoint in Year 7, the students also rated their teachers' performance on 71 items extracted from the motivational theories that were presumed to support student engagement. Of those 71 items, the authors deemed that 68 related to a psychological need in self-determination theory, 47 were characteristic of a leadership style in transformational leadership theory, 29 reflected either a mastery or performance classroom climate, and 10 were associated with students' growth or fixed mindset. The authors reported that their model indicated that approximately 5% of the change in students' self-rated engagement from Year 6 to Year 7 was predicted by their ratings of teachers' engagement-related behaviors. The authors concluded that "physical education teachers can engage students by being good role models, discussing class values, taking interest in students' lives, differentiating lessons, and

by avoiding unfair rewards, unclear instructions, punishments, and conditional positive regard" (p. nd).

Digging Deeper into the Processes of Integration and Hybridization

With the lay of the land for these integrated and hybridized models in place, I want to probe deeper into the composition of these proposed or established theoretical variants and prune the promises from the products. I want to examine the fruits of these creative endeavors to see whether they, in fact, reveal stronger, more viable strains of motivation, as King and Fryer (this issue) sought. Moreover, I want to determine whether the integration and hybridization techniques would permit the contributors to this special issue to draw optimistic conclusions about their new variants or to make predictions of a causal nature. In essence, the purpose of these contributions was to offer educational researchers and practitioners more substantive theoretical models related to motivation constructs than those already populating the literature. Did they succeed?

Motivation–Nonmotivation Spectrum

The editors for this special issue spoke passionately about the need to break down the theoretical silos that have long formed among motivational researchers. As they lamented, "within the field of motivation in educational psychology, researchers have failed to learn from each other… creatively combining different theoretical perspectives might give us a more complete picture of student motivation and learning" (p. nd). Their recommendation to achieve this end was to infuse motivation theories and constructs with insights that could be garnered for theories and constructs outside motivation. I generally agree with the editors that clearer views of motivation's role in student learning might emerge through theoretical cross-fertilization. Yet, that likelihood rests on how motivation was treated within each contribution and the degree to which nonmotivational theories and constructs were interjected. On that point, the contributors to this special issue were situated very differently on a motivation–nonmotivation spectrum.

At the *motivation* end of the spectrum, Elliot and Sommet (this issue) worked entirely within the motivation landscape by focusing on the HMAM (Elliot & Thrash, 2001). With the exception of achievement motivation (Elliot & Pekrun, 2007; Koenka, 2020) and achievement emotions (Elliot et al., 2006, 2007), there was little attempt to interject DNA from nonmotivation theories into HMAM's mapping of constructs with achievement motivation as the focal point. Thus, despite the authors' claims of comprehensiveness and inclusivity of this hierarchical model, the question remains about the nonmotivational strands that might have been explored such as the role of human development.

Similarly situated at the motivation end of the spectrum was Skinner's (this issue) efforts to confront the conceptual fragmentation and theoretical siloes found within the expansive literature on achievement motivation. Rather than

pursue a hierarchical model like the HMAM, however, Skinner chose to employ a systems approach that positioned different achievement motivation theories and constructs within multidimensional space marked by their shared similarities with regard to motivational resilience, academic identity, complex social ecologies, and developmental embeddedness. I acknowledge that by mining the attributional strains that exist in the achievement motivation both Skinner (this issue) and Elliot and Sommet (this issue) have labored to map the genome of this vast literature. However, their decision to remain largely within this terrain begs the question of whether any attributional or methodological weaknesses inherent in this extensive theoretical family were retained.

At the *nonmotivational* end of the spectrum were those contributions where explicit motivational theories or constructs appeared tangential to the alternative models that authors proffered. For example, in the MDL-SAL theory variant that Dinsmore et al. (this issue) generated, the central elements of the merger were changes in cognitive and metacognitive processing that shape learning over time. Although motivation is a component of the theoretical models that Dinsmore et al. hybridized, especially the MDL where individual and situational interest are key variables in learners' academic development, these components were not central to the new configuration that the authors devised. Thus, the potential contributions that the MDL-SAL variant may make to learning and academic development did not expressly address the motivation dilemmas that the editors of this special issue expressly targeted.

The remaining contributions to this special issue, which all mingle theories pertaining to teachers or pedagogy with motivation-related theories or constructs, fall somewhere along the motivation–nonmotivation spectrum. What these remaining integrations and hybridizations have in common is the premise that changes in the learning environment or teachers' actions within that environment should translate into improved learner motivation. On the instructional side, the pedagogical alterations included teacher clarity and appropriate feedback (Fryer & Leenknecht, this issue), high teacher expectations and need-supportive instruction (Hornstra et al., this issue), load reduction instruction (Martin, this issue), and teachers' exhibition of behaviors such as role modeling, opportunity for student choice, and interest in students (Noetel et al., this issue).

The motivational benefits that were presumed to accrue from such instructional changes included stronger self-efficacy beliefs (Fryer & Leenknecht, this issue), increased student engagement (Martin, this issue; Noetel et al., this issue), a greater sense of autonomy, and well-being among students (Hornstra et al., this issue). Of course, there are significant internal and external factors that affect the viability of these theoretical integrations and hybridizations. In essence, the fruits that emerge from these theoretical variants may fail to thrive due to inherent traits of the parent theories, the overall climate of the classroom or educational environment, or the individual characteristics of the teachers or students who populate those learning environments.

Internal and External Conditions

As stated, whether the promises of these alternative variants are realized hinges on strengths and weaknesses within the parent theories from which they arise and on extraneous factors in the environments in which these variants are implanted and the natives who inhabit those environments. In certain cases, those potential threats were explicitly acknowledged by the authors, whereas in other instances, they were just touched upon or overlooked entirely. Yet, unless attention is directed to these internal and external variables, those attempting to empirically validate the proposed models overviewed in this special issue stand on shaky ground when it comes to voicing causal claims.

One of the crucial internal conditions that those exploring motivation theories alone or in conjunction with nonmotivation theories must address is the nature of the data upon which the parent theories or models were generated. In many instances, those data were in the form of self-reports, which have inherent shortcomings that should not be disregarded (Fulmer & Frijters, 2009). Among those shortcomings are the accuracy of respondents' perceptions and their interpretation of what is being asked of them. Importantly, the problem of construct clarity and meaning is not isolated to motivation research. The empirical and theoretical literature in the social sciences is replete in cases of "jingle-jangle fallacies" (Kelley, 1927; Thorndike, 1904). This is where two different concepts or constructs are similarly labeled (jingle fallacy) or the same or very similar concepts or constructs bear different labels (jangle fallacy). There is nothing inherently definitive about the language that populates educational or psychological research, including terms like *engagement*, *achievement*, *learning*, or *well-being*. Nonetheless, those generating or using self-report measures rarely bother to ascertain how respondents to their self-report measures may be interpreting the questions asked of them (Hartwell & Kaplan, 2018; Schoute et al., 2022).

From a data-analytic standpoint, there are often significant correlations that result when multiple motivation constructs are measured to the point that they may pose the threat of multicollinearity. That is why Skinner (this issue) strongly recommended that researchers "include only one of such 'twin' or 'triplet' constructs" and "should not send more than one in to predict the same outcomes" (p. nd). In addition to pruning the redundant and overlapping constructs in studies when trying to combine and consolidate, it is essential to know whether findings from such investigations are practically significant and not just statistically significant, warranting a contextual discussion of effect sizes (Plonsky & Oswald, 2014).

There are also external threats that must be weighed as researchers move ahead to test the theoretical variants described in this issue. Among such external forces are the influences exerted by the teachers shaping the learning environment and the individual differences of students who are the recipients of instructional modifications. For example, Hornstra et al. (this issue) were forthcoming in their acknowledgment of the role played by external forces in the research on the effects of high teacher expectations on students' achievement and sense of well-being:

> HET-teaching and need-supportive teaching do not take place in a vacuum but are affected by contextual conditions and teacher beliefs. Even though the teaching principles put forward by HET and SDT are believed to be universally effective, not all teachers apply these principles in their everyday practices. Contextual conditions, referring, for example, to school-level factors, as well as the pedagogical beliefs and beliefs about their students that teachers endorse, may account for this gap between theory and practice. (p. nd)

Regrettably, the individual differences of teachers or students who are expected to benefit from the theoretical variants described in this issue were not consistently given the attention they warrant. In part, this condition may reflect the fact that the majority of studies grounding these theoretical variants were variable-centered and not person-centered in nature. That means that the outcomes reported are based on mean differences for the variables of interest and not differences among the participants in these studies. Consequently, while the authors can explain the overall effects of treatments they are not positioned to predict for which clusters of teachers or students, their proposed models would likely result in positive, negative, or no appreciable changes.

Let me use Martin's (this issue) Load Reduction Instruction to better illuminate my point about variable-centered versus person-centered analyses. In his offering, Martin (p. nd) identifies five principles of LRI:

> Principle #1: Reduce the difficulty of instruction in the initial stages of learning, as appropriate to the learner's level of prior knowledge and skill.
> Principle #2: Provide appropriate support and scaffolding to learn relevant knowledge and skill.
> Principle #3: Allow sufficient opportunity for practice.
> Principle #4: Provide appropriate feedback-feedforward (combination of corrective information and specific improvement-oriented guidance) as needed.
> Principle #5: [Incorporate] guided independent learning.

Each of these research-based principles speaks about instructional modifications that are "appropriate" to a specific learner. Yet, how is that appropriateness ascertained for the mix of students populating typical classrooms, who will inevitably differ in their background knowledge, skills, need for support, or ability and willingness to function independently? In such contexts, it would seem highly improbable that regular classroom teachers could deliver 20 to 25 versions of LRI. Instead, LRI, as instantiated, would be more likely to target some hypothetical student population and, thus, not be as individualized as the principles suggest. By conducting person-centered analyses on the impact of some more ecologically-practical form of LRI, researchers may be better positioned to identify which clusters of students seem to benefit most from the LRI.

The Desired Fruits of Integration and Hybridization

At the beginning of this commentary, I established my deep-seated interest in what fruits this concerted pursuit of alternative theoretical models might bear. As I indicated then, my particular interests are squarely on these variants' prospective value to learning and academic development for all students. Certainly, the *means* applied to propagate desired outcomes encompassed integrations and hybridizations of theories with differential investment in motivation models and constructs. Moreover, the *ends* of this process sought by contributors included promises of greater clarity and precision among families of motivation constructs; increased student engagement; enhanced feelings of well-being, stronger self-efficacy beliefs, more facilitative cognitive, and metacognitive procedures; and improved achievement. Such ends are certainly laudable. Yet, the fruit that I most wanted these integration and hybridization efforts to bear—improved learning and academic development—was not often front and center in the minds of the contributors to this special issue. Thankfully, there were certain authors who shared my personal investment in students' learning and their academic development (Dinsmore et al., this issue; Fryer & Leenknecht, this issue).

I grant that the notion of *learning* is as amorphous and complex as terms like motivation, engagement, well-being, or achievement. Thus, let me offer a working definition of learning that guides my thinking and then relate that conception to the outcomes that were represented in the pages of this special issue. Specifically, as stated by Alexander et al. (2009):

> Learning is a multidimensional process that results in a relatively enduring change in a person or persons, and consequently how that person or persons will perceive the world and reciprocally respond to its affordances physically, psychologically, and socially. The process of learning has as its foundation the systemic, dynamic, and interactive relation between the nature of the learner and the object of the learning as ecologically situated in a given time and place as well as over time. (p. 186)

Based on this definition, I would regard the multitude of motivation constructs captured in the Hierarchical Model of Achievement Motivation (Elliot & Thrash, 2001) that Elliot and Sommet (this issue) described and the Integrated Model of Academic Motivation that Skinner (this issue) proffered as crucial elements that can support the growth and development of student learning. The same can be said for the substance of the Motivation and Engagement Wheel set forth by Martin (this issue). Still, while many of the motivation constructs explicated in the contributions to this special issue—ranging from engagement (Martin, this issue; Hornstra, this issue; Noetel, this issue) to self-efficacy (Elliot & Sommet, this issue; Fryer & Leenknecht, this issue: Skinner, this issue)—are worthwhile outcomes, they do not speak directly to learning.

Of course, some may argue that achievement equates to the concept of learning that I am espousing. However, in my writings and teaching, I have distinguished between achievement and learning in non-trivial ways (Alexander, 2018;

Alexander & Riconscente, 2005). For one, achievement is most often framed in terms of the evaluation or assessment of individuals' performance against some external standard. Further, achievement as it is most often referenced in the educational or motivational literature is nested within the context of formal education and instructional contexts. Learning, by comparison, occurs in and out of schools, intentionally or non-intentionally, and with or without external or even internal evaluation. School cultures also communicate in subtle or not-so-subtle ways what counts as worthy achievements in students' thinking and performance (Davis & Martin, 2008). Similarly, while learning is certainly facilitated in those contexts where individuals feel a sense of belongingness, personal autonomy, and well-being, learning also occurs when environments are non-supportive, unwelcoming, or even hostile. I am certainly not advocating for these less-than-desirable conditions. In fact, my vision of learning and academic development is unlikely to be realized in environments that are consistently non-supportive, highly constrained or controlled, and hostile (Alexander & the Disciplined Reading and Learning Research Laboratory [DRLRL], 2012). My point here is to make clear that achievement, as it has come to be conceived and operationalized within educational institutions, is not equivalent to learning (Alexander, 2018; Alexander & the DRLRL, 2012). Consequently, the motivation theories and constructs that may promote achievement cannot be presumed to promote student learning and academic development.

Coda

Whatever questions or concerns I may have voiced about the contributions to this special issue, I want to acknowledge the creative and insightful thinking that went into each of these articles and the invaluable contributions their authors made to the extant literature. Whenever scholars forward new theoretical models or attempt to reframe or restructure what already exists, they are taking risks, as the authors have done in the pages of this special issue. As with the editors of this special issue, I feel strongly that those risks are necessary if the educational research community is to deal with the proliferation of motivation constructs overtaking the field. Further, integration and hybridization are viable techniques that can be applied to prune, combine, and consolidate the multitude of theories, models, and constructs that have overtaken the field of educational research. Of course, it remains to be seen whether the exceptional effort exerted by the contributing authors to this issue—the *means*—will ultimately culminate in the desired products—the *ends*.

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