Paul Pintrich: A Once and Continuing Influence

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This article provides an integrative perspective on the articles presented in this special issue. It is also a very personal perspective. In such small space it is impossible to do justice fully to Paul's work or to the reflections on that work. What this final article attempts is a statement that emphasizes the scope and depth of this work as perceived, especially stressing the impact that it has, and will continue to have, for education and psychology for years to come.

The legacy that Paul left is large and rich. He profoundly shaped or reshaped the fields of inquiry to which he devoted his untiring efforts. He, his research, his thoughts, and what he was as scholar, teacher, and friend were a persistent influence on those who knew and worked with him, as well as on many who only knew him through his numerous writings and the impressive quantity of knowledge he gave to the fields in which he worked. In this concluding article I can add little to what has already been said in this regard; only an emphatic "amen!" Special attention, however, can and should be called to how the contributors see not only the current but also the future state of the field in light of Paul's work. How do we build on and extend his legacy? Where do we go from here?

All those within the community of scholars working in these areas will provide the answers. In this integrative statement I can only hope to suggest possible paths to follow as revealed throughout the foregoing rich and diverse portrayal of some of the most important issues facing education and psychology today.

THE NATURE AND NURTURE OF ACHIEVEMENT

A first and abiding theme exhibited in Paul's work concerned the nature and nurture of achievement, especially in educational settings. In this regard, he conducted significant work at the elementary, secondary, and university levels of education. There are, of course, multiple facets to be considered in understanding the multivaried nature of achievement, and his

work seemed to impact all of them. He focused not on only one but on multiple facets of achievement. His work served to change and enhance the study of motivation and to provide a broader conceptual framework for its nature, origins, and effects on achievement and behavior. In one way or another, Paul dealt with most of these facets of achievement—and in a manner that changed how we study or understand the nature of achievement: why, when, and how it occurs.

THE ROLE OF MOTIVATION

Arguably, at the heart of achievement is action, investment in an activity not only for a necessary period but also productively; to this we commonly apply the label *motivation*. Early work on motivation by Atkinson (e.g., Atkinson, 1957) and others focused especially, and sometimes very narrowly, on whether a person would choose to invest in one course of action or another. Recent work has been increasingly concerned with the nature and quality of investment, and it is in that regard, I believe, that Paul made his most important and enduring contributions. Indeed, he was a major force in framing this broader understanding of motivation and an energetic figure in providing the data that supported the resulting framework.

Self-Regulation

It is widely recognized that focused and persisting attention to the tasks at hand is a sine qua non for learning and achievement in almost any domain. Multiple distractions can divert the student's attention from studying, doing homework, or attending to what is taught in class. Somehow, successful students manage to ignore these distractions and maintain the degree of focus needed for learning. They manage to stay on

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task, ignore distractions, and focus on what is important for learning. As Schunk (2005) notes in his article in this special issue, Paul was among the first to incorporate the concept of self-regulation into the study of motivation and achievement in educational settings. Aware of the extensive work from the vantage point of theories of self (e.g., Schunk & Zimmerman, 1994; Schwarz, 1998), he complemented and enhanced that work by showing that the adoption of mastery or performance goals likely figured into when, how, and whether individuals would employ self-regulative behaviors optimally (e.g., Pintrich, 2000; Pintrich & De Groot, 1990; Pintrich & García, 1993, 1994; Pintrich, García, & De Groot, 1994). This later led to more extended consideration of how classrooms might actually promote student adoption of mastery or performance goals that, in turn, influenced engagement in learning tasks (e.g., Maehr & Midgley, 1996).

Epistemological Beliefs

As Barbara Hofer (2005) discusses so well in her article, one of the more innovative extensions in the exploration of how motivation influenced action and thought was evidenced in Paul's consideration (done primarily in collaboration with Hofer) of the nature, origins, and effects of epistemological beliefs, because these may be influenced by motivational orientations or by learning and teaching contexts that stressed different reasons for engaging in an activity (e.g., Hofer & Pintrich, 2002). Although from the start goal theory was especially concerned with both the direction and the quality of behavior, it was the work of Paul and his colleague that not only extended the definition of motivation but also opened up an important avenue for considering how motivation theory and research could relate significantly to higher level thinking processes. This took the study of motivation a long way from the early experiments on choice and persistence of action (cf. Atkinson, 1957). Now, motivation researchers were empowered to explore, define, and identify the origins of action and thought that are associated with the highest, and perhaps most uniquely human, aspects of achievement.

Only someone thoroughly versed in multiple literatures could have done what he did in this domain. Only someone with his enthusiasm, encouragement, and personal skills could have left a legacy of students and colleagues who would not only continue work in this domain but also end up driving it in new directions.

Conceptual Change

Paul was responsible for yet another creative thrust within a broadened interpretation of motivation: the role of motivation in conceptual change (e.g., Pintrich, Marx, & Boyle, 1993). As Sinatra (2005) discusses in her article, his research and theorizing on this topic hold profound implications for designing and carrying out instruction and, as illustrated by this author elsewhere (e.g., Maehr & Midgley, 1996), also

holds important implications for organizational change, including school reform. Arguably at the heart of organizational change is a change in thinking. Paul's contribution lay in showing how motivational processes play an important role in how individuals think as well as feel about any course of action: not simply whether something is worth doing but whether it is worth taking a risk to pursue an uncertain course. Of course, such change implicates one's views of oneself and the benefits that success may bring and the pain that failure may evoke. Paul's work here at least implied that the conditions that lead students to accept a challenge are likewise necessary to encourage and empower their teachers and their principals to reach beyond the truisms of the past, to consider new possibilities and opportunities.

The argument in this regard is that organizational change, at its heart, involves a change in thinking. Arguably therewith, motivational principles as framed by Paul and his colleagues have an important role to play because they are concerned both with emotional reactions and with a willingness to take reasonable risks, think in new ways, experiment, and explore. Indeed, this may well be a facet of Paul's legacy that begs for greater attention—one that, most especially, deserves much more attention than it has heretofore been given. Reflection on the nature of this work may in the future also provide a new perspective for, and renewed interest in, what at the moment seems to be a moribund topic: creativity. If students, teachers, and administrators work in a mastery-oriented rather than performance-oriented environment, does this influence how they decide what to do? Especially, does it encourage taking the risks that are necessary for innovation in teaching, curriculum, organizational structure, and the conduct of instruction? Arguably, much research on motivation harks back to Atkinson's risk-taking model of motivation. As a student in at least one of Atkinson's classes and on the campus at a time when motivation and decision making were in high form, I doubt whether Paul would have objected to this projection of his likely research agenda had he survived. Indeed, Paul and I had already sketched out some of these ideas as possible themes for future research proposals.

Affect

As though that were not enough, through his encouragement students and colleagues began examining the role of affect vis-à-vis motivation, a factor deemed to be of major importance in the early work on motivation and achievement (e.g., McClelland, Atkinson, Clark, & Lowell, 1953), but a pairing to which current sociocognitive perspectives have only intermittently attended. All the authors in this special issue discuss Paul's focus on affect in his writings on motivation and cognition and their interface. Clearly, students, teachers, and all of us feel as well as think. Fears and anxiety, hopes and joy frame whether or how we invest time and energy. Emotions also shape the nature and quality of our investments. In an earlier, precognitive science era, I. G. Sarason (1980) and

multiple others (e.g., Hill & Wigfield, 1984) made this abundantly clear. It is a lesson that we dare not forget as we focus on cognitive processes that shape the nature and direction of action.

EMERGING TRENDS IN CONCEPTUALIZING THE NATURE AND NURTURE OF MOTIVATION

There is little doubt today—if there ever was any—but that achievement is significantly impacted in multiple ways by motivation. The large body of literature represented briefly in this volume makes this point clear. However, the articles in this volume also suggest some emergent trends that may lead to new perspectives in studying and understanding the nature and nurture of achievement.

Contributions to a Situated Perspective on Motivation

Much of the research on motivation and achievement to date has followed a trait rather than "state" paradigm. This is not surprising in view of the way motivation was dealt with by major early contributors to the study of motivation, such as David McClelland (e.g., McClelland, 1985). However, a trait-centered approach to motivation has limitations. In the first place, a trait-centered approach has often proved misleading in the study of culture and motivation (cf. Maehr, 1974). It has limited value in contributing to useful knowledge regarding how teachers, employers, and parents can serve as motivators, a task they are often expected to perform. For motivation to serve usefully in this regard, it must not only be studied as an enduring personal trait, established and embedded early in the developmental history of an individual. It must also be studied as a response that is prompted by certain situations, contexts, and conditions (cf. Maehr & Ames, 1989).

The article contributed by Duncan and McKeachie (2005) is an example of one step that Paul, his colleagues, and students took in this regard. This article reflects the extensive research efforts conducted with the aid of the Motivated Strategies for Learning Questionnaire (MSLQ). The MSLQ was designed for studying motivation-related behavior in the contexts in which it occurs, specifically focusing on identification of contextual features that likely prompt and shape such behavior.

As Duncan and McKeachie (2005) point out, this was strongly reflected in the nature and construction of the MSLQ, which stood out as strikingly different from other instruments commonly employed at the time in the assessment of student orientations, such as the Myers–Briggs Inventory. Because the MSLQ made a specific point of considering achievement-related behaviors as arising in, and as prompted by, particular instructional contexts, this in turn led to an immediate examination of how what happened in the classroom

made a difference in student learning and behavior. It also contributed to a growing trend to consider motivation as arising in, determined by, actually constructed in response to, a specific context—not a fixed trait indelibly shaped by early learning experiences. The immediate and obvious importance of this was that it led to the consideration of what teachers and other mentors can do to elicit student investment in learning in a specific time and place, regardless of the differing entering backgrounds, varied previous experiences, and motivational orientations of the learner.

It is especially notable in this regard that in the several years before his death, Paul and his students and colleagues gave important consideration to the role of situation and context in determining motivation. In the first instance, he conducted research that considered immediate effects of contexts, especially variation in task and performance emphases. He also ventured into an increased consideration of the interpersonal nature of achievement. Some of this work involved studying the motivation, interaction patterns, and achievement of students working in small collaborative groups within a classroom context. Consideration was given not only to motivation and learning or achievement outcomes but also to how contexts influenced interpersonal interaction in cooperative learning groups—and how this in turn influenced attitudes, motivation, and learning and performance. Indeed, his life was interrupted at a point where he was still examining new horizons, raising new questions, rethinking previous positions.

Reconceptualizing the Causes of Motivation

As Harackiewicz and Linnenbrink (2005) discuss in their article, in the last decade or so considerable effort has been devoted to considering the varying roles that mastery and performance goals play in determining whether and how individuals are motivated, and Paul was a central figure in these efforts. From the first, an issue of practical concern was focal: whether the evidence indicated that teachers, parents, and others in the business of motivating others should be advised to stress mastery and eschew performance goals. Although this debate continues in different ways and forms, it appears that both goal types do motivate; some would argue that performance goals motivate at an unwelcome price in many important instances, such that it may be best to advise teachers and parents to focus on establishing mastery rather than performance goals in most cases (cf. Midgley, 2002; Midgley, Kaplan, & Middleton, 2001). This debate has not really been resolved—nor, I suggest, will it be unless and until the processes of promoting, adopting, and acting in terms of one goal or another are more thoroughly and systematically considered. Multiple issues should be considered in this regard. These seem to revolve around the understanding of what a goal is, what it does, and its possible functional significance.

Of course, this poses a daunting task, perhaps an unending agenda. There is a place to begin, however, and it will likely yield results that will justify our efforts. Simply put, we should

now be asking why goals—including especially mastery and performance goals—have whatever effects they have.

This was, of course, an issue of considerable interest in early conceptualizations of goal theory (e.g., Maehr & Nicholls, 1980; Nicholls, 1984) where the answer proposed implicated the sense of self. Given the parallel emergence of a vast literature on self-awareness then and now, it is surprising that so little attention has been given to this issue in the achievement motivation literature recently. Yes, countless survey studies have incorporated assessments of self-concepts, especially perceptions of ability as variables that possibly moderate goal effects. Only a few studies, however, have systematically considered the effects of performance goals in prompting the salience or focal awareness of self that may be a significant moderating factor.

More specifically, one line of thinking that should be considered is that performance goals are more likely to have positive effects if and when one's sense of self is essentially positive. In contrast, when the individual has doubts about his or her ability, performance goals are most likely to be distracting at best (e.g., Steele, 1997; Steele & Aronson, 1995). At worst, they may induce anxiety responses that could undermine performance. The point is not that this suggestion will automatically solve the problem. Rather, it is surprising that so little attention is given to why this or any other solution might explain why task and performance goals vary in their effects on motivation.

The debate about goals has not been unimportant. Indeed, it has been most useful and productive. It has not only pointed out the errors in our way but, at least in the case of this author, has also prompted an overall, broader reconsideration of the nature and construction of achievement motivation theory (Maehr & Simmonds, 2004). Goals alone do not determine whether, how, and when individuals invest their time and talent. Sense of self is of equal if not greater importance. Such investment is made from socially, culturally established, and personally perceived and adopted options for action. Forebears of current motivation theory, such as John W. Atkinson and David McClelland, should have taught us that. And it was Paul Pintrich who regularly prompted me and perhaps others as well to view any current theory more broadly in the perspective of psychological theory.

Perhaps most important, his work has opened, and will continue to open, new venues for research that should enrich our understanding of the nature and nurture of motivation and achievement. Most assuredly, it will ultimately serve to enhance the value of motivation theory in serving the needs of those who are in the business of motivating others: teachers, parents, employers, coaches, leaders.

A CONTINUING INFLUENCE

Unquestionably, Paul was a powerful influence on his students and multiple colleagues and contributed in many ways to many fields of study. This is evident throughout these several articles. All of us could only hope to leave a legacy such as Paul obviously did. As someone who knew Paul as student, colleague, collaborator, and most important, as a close friend, I am hardly surprised at the expression of respect and gratitude, appreciation and indebtedness reflected directly and indirectly throughout this collection of articles. It is especially noteworthy that these articles honor Paul by suggesting the implications of his work for continuing efforts in the areas of research and theory with which he was so deeply concerned. The combined evidence, multiple insights, and perspectives reported or alluded to in this wonderful collection not only remind us all of our indebtedness to Paul but also prompt us to consider the future. We honor his life now and in the future by continuing to tread the paths that he trod, of course. We also do his work justice by using it as a start toward arriving at new understandings and a beginning of new and different research efforts.

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