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INTRODUCTION

Why This and Why Now? Introduction to the Special Issue on Metacognition, Self-Regulation, and Self-Regulated Learning

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It is perhaps a truism to say that there is an inverse relation between the popularity of any educational construct and its conceptual clarity within the literature. Certainly, the widespread popularity of such terms as *constructivism* or *strategic thinking* and the ensuing discussions over their actual meanings would serve as cases in point of this apparent loss of clarity when terminology is popularized or variably operationalized in research or practice (Harris and Alexander 1998; Phillips 1995; Pressley and Harris 2006). The purpose of this special issue was to consider the nature of the interrelations between three key terms whose meanings have been inextricably intertwined within the educational literature, either intentionally or unintentionally. Those terms are *metacognition*, *self-regulation*, and *self-regulated learning*.

I have entitled the introduction to this special issue as "Why This and Why Now?" because the value of such an undertaking merits questioning, particularly at this point in time. Clearly, there are justifications for bringing this issue to the educational psychology community now. Among the catalysts for this review is the resurgent or rising interest in metacognition, in self-regulation, and in self-regulated learning that I have witnessed within the educational literature over the last decade. That means that we not only have a body of past work that can be analyzed retrospectively, but also a critical mass of contemporary writings available for our examination. This historical and contemporary juxtaposition affords a unique opportunity to identify the various issues that thread themselves across decades. Those issues then serve as a means to project forward to where subsequent investigations of these constructs will or should progress in years to come.

Alongside the nascent or renascent interest in metacognition, self-regulation, and self-regulated learning, I have perceived that authors either assume that the meanings of these terms are well-known and well-accepted by readers or they do not feel the need to establish their conceptual definitions. Certainly, this lack of conceptual clarity is not a new problem for me or the field at large, as witnessed by my colleagues' and my delving into the extensive literatures on knowledge (Alexander *et al*. 1991), motivational constructs (Murphy and Alexander 2000), and learning (Alexander *et al*. 2008). In fact, it may well be an unavoidable consequence of

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working within the educational realm that has not precise or agreed-upon meaning for any of its most central constructs.

Further, as someone who has been playing in the arena of metacognition and executive control for almost 30 years and as an editor of leading journals, I have been surprised by the frequency of conceptual cross-fertilization I am now witnessing. For instance, within the new journal, *Metacognition and Learning*, it is not uncommon to find articles dealing with self-regulation (Kitsantas and Zimmerman 2006) or self-regulated learning (Pieschl *et al*. 2008). Moreover, within edited volumes dedicated to one of these terms (e.g., *self-regulation*), there will inevitably be references, if not chapters, dealing with one of the others (e.g., *self-regulated learning*).

I do not mean to suggest that the cross-fertilization of ideas is, in and of itself, a problem—quite to the contrary. Nor do I feel it is imperative or even advisable to have but one conceptual definition that can be applied to any complex educational construct. However, as educational research migrates farther and farther from the initial philosophical or psychological roots from which it arose, it is worthwhile, if not necessary, to take a critical look at the constructs as they have more recently been conceptualized and operationalized and to compare them to their conceptual progenitors, as well as to presumably related terms. How better to comprehend the nature of metacognition, for instance, than to ponder its associations with self-regulation or self-regulated learning? It makes sense that those who wish to engage in basic research within the area of self-directed activity (or what some have historically referred to as executive functioning or executive control; Brown 1975), or who desire to formulate interventions that promote self-regulated or self-directed learning and development, want to have as clear an understanding of their central constructs as possible. And, investigating the boundaries or overlaps in metacognition, self-regulation, and self-regulated learning should prove invaluable in that regard.

Further, even though there have been recent reviews of the literature that inform the contributions to this special issue, those reviews have focused on one or another of these conceptual domains (e.g., self-regulated learning; Greene and Azevedo 2007). Such reviews have not sought to juxtapose any one of these terms (e.g., *metacognition*) against another or to explore their shared conceptual boundaries. Therefore, this special issue, dedicated precisely to those purposes, is not only timely but also critical to the continued development of the literature dealing broadly with self-directed activity and its role in academic development.

I thought long and hard about the contents of this issue and those well equipped to do justice to that content. For instance, it has been my position that contemporary issues can be more clearly and broadly envisioned when we can stand on the shoulders of our theoretical and empirical forefathers (Alexander 2003). That certainly holds true for metacognition, self-regulation, and self-regulated learning, as the insightful opening article by Fox and Riconscente (2008) makes apparent. Specifically, this article provides an overview of the historical precursors to present day notions of metacognition and self-regulation. It does so by drawing directly on selected writings of William James, Lev Vygotsky, and Jean Piaget. In particular, Fox and Riconscente highlight these theorists' considerations of the role of affect and will, of social interaction, and of developmental changes—all critical dimensions of contemporary conceptualizations of metacognition, self-regulation, and self-regulated learning.

While Fox and Riconscente's article affords us a rich philosophical view on our targeted constructs, the review by Dinsmore *et al*. (2008) engages in a detailed analysis of the more recent empirical literature that purports to address one or more of those constructs. In effect, Dinsmore *et al*. look broadly at the manner in which metacognition, self-regulation, and self-regulated learning have been conceptualized and operationalized in recent published works. That extensive analysis of 255 empirical works sets the groundwork for the more particular

reviews that follow in this volume ad that elaborate, extend, complement, or clarify the themes that Dinsmore *et al*. outline.

Indeed, the ensuing collection of works for this special issue has been chosen to bring several bodies of research into alignment so that key theoretical elements, methodological features, and statistical dimensions can be compared and contrasted. In some instances, those ensuing reviews involve literatures that have already been linked to metacognition, self-regulation, or self-regulated learning. Thus, Loyens *et al*. (2008) delve into the role of self-directed learning in problem-based learning (PBL) environments and juxtapose those works to the broader literature on metacognition, self-regulation, and self-regulated learning. Similarly, Winters *et al*. (2008) pick up themes identified by Dinsmore *et al*. and frame them more precisely within the research on computer-based learning environments (CBLEs). In both cases, we can see how the roots of metacognition, self-regulation, and self-regulated learning have taken hold and have migrated to associated fields of inquiry.

Finally, with the article by Maggioni and Parkinson (2008), the core ideas underlying this special issue are carried into a realm of empirical research that has not traditionally been positioned under the banner of self-directed activity, *epistemic cognition*. What also distinguishes this particular contribution is the purposeful focus on teachers and how metacognition or self-regulation manifests in educators' beliefs about knowledge or the practice of communicating that knowledge to others, as well as in the calibration of their students' learning or their own performance.

To fully realize the goals for this issue, I sought the insights of three remarkable scholars who have long been invested in one or more of the constructs central to this volume. For one, Dale Schunk (2008) has long been regarded as a leader in the area of self-regulation. Here, he displays that expertise by outlining critical recommendations for the future based on the emerging themes and concerns identified in the individual articles. For another, Susanne Lajoie's (2008) theoretical and empirical writings have served to fuel the burgeoning area of self-regulated learning. In her commentary, she poses the provocative question of whether the changes evidenced in these reviews exemplify an evolutionary or revolutionary transformation. As a means of addressing that question, Lajoie discusses Bandura's (1977) notion of reciprocal determinism in light of mind-environment interactions supported in technology-rich learning contexts. Finally, Avi Kaplan (2008), whose body of work has touched on all three of our key constructs, boldly reframes the problem at hand, unwilling to accept the premise that we need to establish the boundaries between metacognition, self-regulation, and self-regulated learning. Instead, Kaplan admonishes us to seek the dimensions along which all manner of self-regulated action varies. Further, he introduces the notion of *multidimensional conceptual space for self-regulated action* to achieve that end.

I grant that the goals that I envisioned for this special issue were lofty and ambitious. However, I feel confident that those who immerse themselves in the articles and commentaries will be informed and enlightened by the experience. I also feel certain that those who become engaged in this special issue will view writings that speak about metacognition, self-regulation, and self-regulated learning with greater discernment, and will frame their own theoretical and empirical writings with a newly-found sensitivity and wisdom that this special issue can afford. I am privileged to have brought this special issue to fruition and grateful to Daniel Robinson for the opportunity to do so.

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