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10. THE ENTANGLEMENT OF THINKING AND LEARNING SKILLS IN NEOLIBERAL DISCOURSE

Self, Self-Regulated Learning, and 21st Century Competencies

INTRODUCTION

Critical psychologists suggest that there is a crisis of selfhood in which people's lives are organized around material consumption, radical individualism, and self-betterment at the expense of civic responsibility and the recognition of the social mediation of self (Cushman, 1990; Gergen, 2009; Martin, 2004; Martin & McLellan, 2013). As schools are sites for the production of selves, this crisis can be both exacerbated and mitigated by pedagogical structures, curricula, and policy (Martin & McLellan, 2013; Sugarman, in volume). Shaping schooling to focus on thinking and learning skills may seem like a reasonable approach to address this problem. Such skills have been a hallmark of advocates who support civic engagement, humanization, and democratic processes (Dewey, 1916/2004; Lipman, 2003; Shor, 1992). Commitments to cultivate teaching and learning skills are an attractive approach that can satisfy a humanistic vision of schooling. However, a major concern is that thinking and learning skills have come to define essential features of neoliberal subjectivity, which is implicated in shaping selfhood that is radically individualistic, amenable to corporate interests, productive, efficient, and economically useful (Apple, 2006; Briscoe, 2012; Lakes & Carter, 2011; Martin, 2004; Matusov, 2011).

The task of neoliberals is to inscribe a brand of self that engages in constant and intense evaluation of desires, thoughts, behaviors, strengths, and weaknesses for the purpose of acting strategically (i.e. efficiently and productively) to increase personal value and outcompete others (Rose, 1998). This neoliberal self is individualized, disciplined, self-interested, and responsabilized. This self is fit for 21st century economic and educational environments, which can be construed as rapidly shifting, competitive, and replete with choices. In these environments, good workers/students are good thinkers and learners. They are self-regulated, adaptable, innovative, creative, flexible, and good problem solvers. Such individuals are believed to be necessary for economic growth, global competition, efficiency, productivity, and innovation. From this line of reasoning, the commitment to cultivate thinking and

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learning skills endorses and validates the neoliberal (trans)formation of selfhood. A major concern is that the neoliberal self fails to explicitly encourage social justice as a life principle because it contradicts market forces.

The purpose of this analysis is not to invite a wholesale rejection of thinking and learning skills, nor is it to endorse the habituation of behaviors and the enactment of rote procedures, which are emphasized in Taylorist and Fordist models of schooling; these goals constitute a false dichotomy. Furthermore, features of thinking and learning, such as flexibility, discipline, and persistence, are not necessarily and inherently a problem. However, such skills are dangerously aligned with a neoliberal goal to inscribe a particular kind of selfhood. As neoliberalism contributes to the crisis in selfhood, there needs to be considerable work exploring how curricula and pedagogy designed to teach thinking and learning skills are neoliberal. Concomitantly, there needs to be an exploration of how thinking and learning skills might be untangled to favor a commitment to schooling that contributes to the production of selfhood that is justifiably democratic, civically virtuous, and humanizing. To untangle the discourse of these skills from neoliberalism may not necessarily require the conceptualization of a different set of skills or a shift from the ends toward which these skills are directed. A starting point can be the examination of self that underpins thinking and learning skills. Critical psychological theorizing of the self can support this goal.

THINKING AND LEARNING SKILLS

An analysis of the ideological and philosophical underpinnings of thinking and learning skills requires a consideration of what it means to learn and think. For centuries, philosophers and psychologists have wrestled, and continue to wrestle, with these questions. There are countless books exploring the nature of thinking and learning, how they develop, and what they should look like. A comprehensive look at this context is far beyond the scope of this paper. When followed by the term “skills,” the notions of thinking and learning are no less certain. Lipman (1985) describes thinking and learning skills as “nothing less than an inventory of the intellectual powers of mankind” (p. 83). This broad conceptualization makes sense because thinking and learning are arguably the *sine qua non* of being human. However, when the notion of skills is associated with thinking and learning, there is a connotation of mastery, control, and discipline in the production and application of intellectual powers. What is arguably a human vocation becomes something to be cultivated and developed in specific ways.

My argument is not about whether thinking and learning skills are natural. Although one’s view of the ontology of these skills can affect pedagogy, the end is the same. If through a Deweyian commitment to shape natural thinking proclivities or a Montessorian approach to limit the constraints of environmental circumstances, the pedagogical aim may remain to ensure that students are displaying what is recognized and measured as thinking and learning skills. Although the notion of “cultivate” can have the connotation of forming something that is absent, I use this

term to signify the idea that there are specific and predetermined ways of thinking and learning that are the focus of pedagogical decision making, which must be associated with measureable student outcomes and gains over time.

In contemporary educational discourse, the terms “thinking skills” and “learning skills” are often used to encapsulate specific cognitive qualities, dispositions, and competencies. These may include, but are not limited to, critical thinking, scientific thinking, problem solving, creativity, reflection, metacognition, and self-regulation. These skills are different, some of which reflect contradictory relationships, making it difficult to unify curricula around cultivating all of them. There are also controversies surrounding specific skills. For example, critical thinking is different from critical consciousness. Exploring this distinction, Burbules and Berk (2009) highlight the ways in which thinking and learning skills that share similar terminology can vary significantly in both form and content. Critical consciousness includes but extends beyond the epistemic validation of truth claims to include a commitment to mitigate unjust social orders (Freire, 1987). Problem solving is different from the notion of “problem posing,” which involves a dialogic approach to the production of problems to be solved along with a commitment to a socially just outcome (Freire, 1970/2000). Given the extensive list of thinking and learning skills, along with the complexities that surround them, it is helpful to anchor the analysis in one particular skill.

This analysis is anchored in the contemporary discourse on self-regulated learning (SRL). SRL is a self-steering process that targets one’s own thoughts, emotions, and behaviors, as well as features of the environment in order to modulate learning goals (Boekaerts & Cascallar, 2006; Zimmerman, 2002). Although justifiably more of a learning skill than a thinking skill, SRL involves skilful thinking and arguably underpins other skills, such as critical thinking and problem solving. SRL is associated with dispositions and processes, such as adaptation, planning, executing plans, reflection, personal evaluations, and self-monitoring, which educationalists suggest are important for empowering students to take control of their lives and succeed in the 21st century (Cleary & Zimmerman, 2004; Mishra, Fahnoe, Henriksen & the Deep-Play Research Group, 2013; Järvelä, 2011). Like other thinking skills, SRL is associated with democratic participation (Yowell & Smylie, 1999) and humanization (Cleary & Zimmerman, 2004).

The discourse on SRL parallels the broad discourse on thinking and learning skills and can serve as a starting point for critique. The analysis would look different if the focus was on critical thinking, for example. However, there are points of critical concern with SRL that can be generalized to the broad discourse on thinking and learning skills. Furthermore, this analysis reflects a starting point for a conversation about the role of thinking and learning skills in contemporary educational reform, especially in the context of a spreading neoliberal agenda. Furthermore, with a growing interest in SRL and an acceptance of its importance for school success, the potential value for this analysis is significant. Although anchored in SRL, it is necessary to continue this work in relation to other skills in order to encourage the integration of such analyses in the field.

NEOLIBERALISM: A STORY FOR THE 21ST CENTURY

A key premise in this analysis is that thinking and learning skills are entangled in neoliberal values for selfhood. Although some controversy surrounds the definition of neoliberalism, it can be understood as an economic logic, government rationality, and ideology that are based on the idea that the best way to ensure prosperity and well-being for individuals is to organize all interactions to function in terms of free-market principles (Harvey, 2007). To this end, proponents of neoliberalism strive to remove obstacles to innovation and entrepreneurialism by maximizing choice, increasing competition, and rewarding productivity and efficiency. The purpose of these commitments is to support economic prosperity, improve global competition, drive innovation, and increase efficiency. Maximizing efficiency and productivity of workers on all levels of economic strata is an essential feature of neoliberalism (Agostinone-Wilson, 2006; Harvey, 2007; Hursh, 2000). This commitment is profit-driven (i.e. yielding productive workers), rather than driven by the production of better democratic processes (i.e. liberally educated citizens) (Apple, 2006; Hursh, 2000; Matusov, 2011; Schmidt, 2000).

Schools continue to be transformed to reflect neoliberal values, purposes, and commitments (Apple, 2006; Boyles, 2005; Johnson, 2013; Saltman, 2006). One product of this transformation is the deep entanglement between schooling and the economy. From neoliberal logic, the purpose of schooling is to promote the accumulation of human capital. One way to achieve this aim is through the scientific management of people and processes. Most notably associated with this aim is Frederick Taylor (1914), who believed efficiency and productivity were achieved by breaking tasks down into simple parts for which technical knowledge was required. This approach is not unlike Fordism, which is distinguished from Taylorism only with the emphasis on psychological interventions for the purposes of maximizing efficiency and discipline for assembly line production (Harvey, 1990). Given the expansion of manufacturing during the early 20th century, Taylorism and Fordism shaped the purpose of schooling to center on the accumulation of human capital to perform standardized, rote, and simplified procedures. These models are associated with pedagogical commitments to maximize instructional time, teach trivial facts, transmit knowledge rapidly, encourage rote procedures, and cultivate obedience to social hierarchies. As Goodman (in volume) argues, these models not only reproduce inequalities, but are also responsible for student resistance and dissatisfaction with schooling.

Although the contemporary occupational landscape is different from the early 20th century, commitments to Taylorism and Fordism persist (Goodman, in volume). Such persistence is problematic especially given class-related differentiated curricula (Anyon, 1981; Bernstein, 1971; Gorlewski, 2011; Journell, 2011). Researchers observe that schools teach middle-class children the knowledge and skills to manage, while teaching working-class children to be workers. Specifically, middle-class children are taught to be creative problem-solvers, critical thinkers, and producers of knowledge; whereas, working-class children are taught to follow instructions,

consume information, and perform tasks without questioning. This schooling structure supports a social efficiency model of schooling and is reproductive of a hierarchy. These lessons for working-class children are considered to be obsolete for the 21st century (Gee, 2004; Gorlewski, 2011). Teaching thinking and learning skills to all individuals may appear to level the playing field. Although there are several reasons to doubt the efficacy of this reform movement, the focus here is how the current occupational landscape is arguably changing that render thinking and learning skills the new technical knowledge for efficient production.

Occupational Conditions

The 21st century is often referred to as rapidly changing, unpredictable, and continually in flux. In this context, some suggest that few occupations require individuals to perform repetitive tasks and apply technical knowledge (Bialostok & Kamberelis, 2012; Ellis & Folley, 2010; Gee, 2004; Gorlewski, 2011; Walkerdine, 2003). Rather, individuals on all levels of the occupational structure are required to problem solve, adapt, create, self-direct, work with others, and innovate in order to support functioning in a multi-faceted and shifting social and economic matrix. Bialostok and Kamberelis (2012) point out that these new expectations stand in stark contrast to Taylorist and Fordist models of employment that emphasize “reliability, standardization, repetition, mass production and consumption, and firm-based loyalty” (p. 419). Today, businesses require employees at every level to develop strategies and skills requisite for responding to rapidly changing markets (Bansel, 2007; Gee, 2004; Gorlewski, 2011). Therefore, failure to cultivate thinking and learning skills may hinder individuals’ ability to perform the required functions. Gorlewski (2011) rightfully suggests that failure to cultivate thinking and learning skills may relegate individuals to employment with low wages, instability, and minimal benefits.

Aside from the nature of work, there are other conditions of the occupational landscape that justify the importance of thinking and learning skills. As a result of unpredictable and rapid economic changes, researchers argue that it is common today for people to switch careers 5–7 times in their lives, making it necessary to develop thinking skills for lifelong learning (Bansel, 2007; Walkerdine, 2003). Furthermore, Trilling and Fadel (2009) argue that individuals are increasingly confronted with the expectation to manage time, people, projects, and resources. The thinking and learning skills that are required to meet these demands, Trilling and Fadel contend, are needed to compete globally, paradoxically alongside a need for global cooperation to solve environmental and economic problems.

Access to technology is also a 21st century condition that validates the need for thinking and learning skills. With increased access to technology and information, such skills are considered more important than memorizing, reciting, and habitually acting. Individuals must learn to interpret information in order to evaluate its usefulness for application. In addition, Trilling and Fadel (2009) contend that individuals are and will continue to be confronted with a world that is shrinking

because of technological connectedness and transportability. Therefore, individuals need to integrate diverse perspectives and remain flexible when communicating and collaborating with other people from diverse cultures.

The 21st century is constructed in a particular way: global, competitive, unpredictable, technology-rich, and replete with ill-defined problems. The essential question with which educators and policy makers wrestle is: what enables individuals to fix, navigate, and compete in this context? Of course, one response is thinking and learning skills. However, which skills are necessary? Once that is decided, there is the question of how to cultivate them. With the deepened neoliberal entanglement between schooling and the economy, the question of what kinds of people are needed for this depiction of the modern world is always accompanied by questions of how to shape classrooms to cultivate these kinds of people. There is an emerging framework in the United States that encapsulates the kinds of skills that students must demonstrate. It is appropriately termed 21st century competencies (21CC). The kinds of thinking and learning included in this framework are strikingly similar to SRL.

21st Century Competencies and Self-Regulated Learning

As a result of the conditions and demands of the 21st century, Trilling and Fadel (2009), like many others, argue that schooling must be designed to support the development of thinking and learning skills. Järvelä (2011), a prominent self-regulated learning (SRL) researcher, states:

As we progress into the 21st century the importance of *learning competence* is growing. At school and in their free time students are surrounded by competing demands for their attention. In their working life adults experience increasingly strong *pressure to innovate* and *solve problems*. What, then, enables us to meet these demands? Both students at school and adults at work have to *make appropriate choices, prioritise and plan their work and lives strategically*. They need to focus and *adapt their behaviours and actions to fit each situation's demands*. (p. 297; emphases added)

The idea is that contemporary schooling must equip individuals with flexible and adaptive lifelong thinking and learning skills so they can make good choices, solve problems, adapt, strategize, and meet shifting contextual demands. Järvelä's depiction of the 21st century is common. However, what is significant about her quotation is that she uses this representation of the modern world to argue for the importance of students' SRL. Like other educational psychologists (Dweck, 2009; Mishra, Fahnoe, Henriksen & the Deep-Play Research Group, 2013; Zimmerman, 2002;), Järvelä views SRL as a form of engagement that can support success within the 21st century.

The discourse of SRL is aligned with various frameworks for 21CC. In these frameworks, the key notion is "competency." According to an OECD (2005) report, a competency is "...more than just knowledge and skills. It involves the ability to meet

complex demands, by drawing on and mobilizing psychosocial resources (including skills and attitudes) in a particular context” (p. 4). The notion of “competency” here mirrors definitions of adaptability and flexibility, which is common to all frameworks. Other competencies include an ability to execute, manage others, critically interpret information, solve problems, create, and innovate. These competencies align closely with SRL (Wolters, 2010).

In conducting an analysis of the conceptual commonalities between 21CC and SRL, Wolters (2010) contends that emphases on self-direction, plan execution, adaptation, and interpersonal management bridge these discourses. Frameworks for 21CC emphasize the need for individuals to work independently to set their own goals and self-direct their activities, which are defining features of SRL. Some researchers use the notion of proactivity to capture this feature of SRL (e.g., Cleary & Zimmerman, 2004; McInerney, 2011). Proactivity is associated with setting and seeking challenging tasks in order to improve skill and performance. Reactivity, which is strangely opposed to proactivity in the SRL literature, also plays a role in self-direction. Self-regulating learners treat feedback as valuable pieces of information that can prompt personal changes. The belief is that individuals must take action that is independent of external cues (e.g., teacher prompts) and consequences (e.g., bad grades); yet, they must remain attuned to external messages for information about the effectiveness of their regulatory processes and strategies.

Another point of overlap between 21CC and SRL relates to the emphasis on adaptability. In 21CC frameworks, being adaptable means working effectively within shifting environments by being attuned to external demands, incorporating feedback, understanding diverse views, adjusting goals, altering strategies, and being inventive. Researchers tend to agree that effective and productive self-regulated learners do not adopt a habit or a routine set of skills or strategies, but rather respond to new learning challenges in productive ways by strategically changing tasks, task perceptions, goals, plans, beliefs, and strategies. Wolters (2010) contends that self-regulating learners maintain an active and ongoing awareness of task demands, the effectiveness of learning strategies, and their progress toward task completion. From this awareness, they adapt thoughts and behaviors to fit each the demands of each situation.

Models of 21CC stress the importance of communication and interpersonal management. This competency means that individuals must be able to work with others to achieve both common and individual goals. In order to work with others, individuals must be able to interpret messages communicated by others and, in turn, effectively articulate their own perspectives. Working with others is a feature of effective self-regulated learners. Wolters (2010) writes:

Because they [self-regulated learners] are motivated and effective at managing their environment, self-regulated learners are able to work with others in the academic context in a way that will aid them in the achievement of their personal learning goals. To the extent that it will serve to further these learning goals, SRL would include effective collaboration with others. (p. 9)

Interpersonal management can also be tied to help-seeking, which is an important skill for SRL. Effective self-regulated learners evaluate the limitations of their knowledge and skill and strategically evaluate how others can be instrumental in the pursuit of personal and shared learning goals.

The overall pedagogical goal for SRL and 21CC is to support the development of certain skills so that individuals can adapt and make adjustments to meet challenges when seeking solutions and advancing skill level. Individuals must learn to self-assess the effectiveness of strategies and redirect efforts, if necessary, to achieve a goal or obtain a solution to a problem. The modern economy is believed to require such skills. Individuals must be flexible, strategic, problem solvers who are self-aware and self-regulating. They must be persistent when committing to achieving an academic goal and striving for self-improvement.

Modern Classrooms for the Modern World

Schooling that is based on preparation for the modern world is labeled “21st century education” (Jerald, 2009). Education for the 21st century is designed to mirror the conditions of the economy so that individuals can develop and transfer a specific set of thinking and learning skills. Given the purported problem-oriented nature of work, the requirement for collaboration, shifting circumstances, and unpredictability of market conditions, 21st century schooling is problem-based and focused on developing cognitive and conative skills (Jerald, 2009; Marzano & Heflebower, 2012). In 21st century classrooms teachers are “facilitators” (Marzano & Heflebower, 2012). This role of the teacher aligns with the philosophy of learner-centered pedagogy. In these classrooms, students are ostensibly given choice, control, and opportunities for personalized learning so that they evaluate themselves in ways that support strategic pursuits and adjustments of “personal” learning goals. To achieve this goal, Marzano and Heflebower (2012) suggest that teachers must work with students to produce inner dialogues that enhance attention, persistence, and goal attainment. Self-scales and self-assessments are important instruments for this type of schooling.

The representation of 21st century classrooms mirror classroom structures that are believed to facilitate SRL. Granting students autonomy in project-based learning situations is important for SRL. Paris and Paris (2001) suggest that such classrooms encourage mastery, collaboration, and self-evaluations, which are key processes and commitments for SRL. In addition, SRL researchers tend to agree that opportunities for choice and control are features of classrooms that invite and support the development of SRL (e.g., Cleary & Zimmerman, 2004; Housand & Reis, 2008; Paris & Paris, 2001; Perry et al., 2002). Housand and Reis (2008) argue that classrooms that support SRL are characterized by choices, complex tasks, volitional control (e.g., time and independence for task engagement), metacognitive prompting (e.g., weekly reflections), explicit strategy instruction (e.g., modeling and direct instruction), student participation in assessment, and the inclusion of materials that

allow students to reflect and track their progress (e.g., reading logs). The rhetorical emphases on projects, autonomy, choice, personalized learning, and self-evaluations are organized around a commitment to cultivate thinking and learning skills for 21st century economic contexts.

Shaping curricula and pedagogy to foster thinking and learning skills seems appealing. This aim provides a firm point of resistance to Taylorist and Fordist models of schooling that emphasize the habituation of technical procedures and the silencing of questions that probe for meaning and value of those procedures. Teaching individuals to think and learn can be reasonably distinguished from cultivating technical skills that enable individuals to follow orders and efficiently perform repetitive tasks. In the discourses of SRL and 21CC, the goal is arguably not to transmit a static form of technical knowledge and skills, but to shape individuals into those who can make plans, execute plans, be adaptive, communicate with others, critically interpret information, solve problems, take risks, and be creative. Questioning the focus on thinking and learning skills may seem counterintuitive. Likewise, questioning the production of schooling environments that ostensibly optimize choice, personal control, and opportunities for problem solving and critical thinking may seem absurd, anti-democratic, and dehumanizing.

Although an appealing educational focus, shaping curricula and pedagogy to cultivate thinking and learning skills aligns with a neoliberal agenda to transform subjectivity in ways that legitimizes neoliberal relations. Thinking and learning skills can be considered the new technical knowledge that enables individuals to perform neoliberal subjectivity and validate neoliberal structural arrangements. There is a danger that endorsing these skills can be associated with the goal to inscribe self-managing and responsabilized people who can adapt to shifting situational demands in order to support personal gain, corporate sustainability, efficiency, and productivity. The good thinker and learner is purportedly the good worker for the 21st century. Thought about this way, thinking and learning skills are not unequivocally empowering and aligned with democratic purposes of schooling, nor do they endorse a kind of personhood that is organized around civic virtue and justice.

SELFHOOD: THE BELLY OF THE BEAST

The main premise in this analysis is that thinking and learning skills have come to define key features of the neoliberal subject. It is imperative for neoliberals to inscribe this subjectivity because, as Apple (2006) argues, neoliberalism can work only if individuals are constituted in neoliberal ways: neoliberalism requires neoliberal subjectivity, which will be discussed here as a type of self and self-relationship that is organized around market logic. Thinking and learning skills can be associated with this logic. In this case, SRL and 21CC align closely with features and conditions of neoliberal subjectivity. This association is a problem because of the values and assumptions that underpin neoliberal subjectivity. The neoliberal subject is a highly individualized, responsabilized self who is committed to the

investigation and investment of self that is intended to increase personal value. This self is scientific (Martin, 2007), expressive (Martin, 2007), and empty (Cushman, 1990)—types of self that compete with civic responsibility and humanization.

Neoliberal Selfhood

Neoliberal subjectivity can be described as a particular kind of self. This selfhood is referred to as the entrepreneurial self (Rose, 1998), enterprising self (Martin & McLellan, 2013), managerial self (Fitzsimons, 2011), and *homo economicus* (Foucault, 2008). Although each of these terms has slightly different connotations, they refer to an organizing principle of self, which is to maximize autonomy and freedom of choice in the pursuit of happiness, success, and personal fulfillment as rationalized in terms of economic purposes and competition (Hilgers, 2013; Rose, 1998). The term “neoliberal self” is used to refer to this principle. Specific features of the neoliberal self include the: (1) formulation of self as human capital; (2) treatment of life as a project to be efficiently and productively managed; (3) constant drive for improvement; (4) pursuit of happiness, success, and personal fulfillment; (5) consumption of material and immaterial products for personal goal attainment; (6) value for the maximization of choice; and (7) instrumental use of others to achieve goals.

A key feature of the neoliberal self is the reformulation of being as human capital. Becker (1993) defines human capital as the knowledge, skills, values, and dispositions that enable individuals to perform economic functions that raise their personal value. Fitzsimons (2011) argues that human capital theory is the most prominent economic theory of Western education, first appearing in the 1960s when the link between education and economic growth was crystallized. Governmental goals linked to human capital theory include improving the flexibility of labor, the overall competitiveness of the economy, and strengthening of international linkages. The treatment of people as capital revolves around the development of workforce skills that enhance the flexibility of the labor market that makes structural adjustments to economic changes readily possible.

From a neoliberal perspective, individuals are construed as human capital and education is viewed as a key source of its development, acquisition, and accumulation (Apple, 2006; Becker, 1975; Fitzsimons, 2011; Peters, 2001; Read, 2009; Rose, 1998). In neoliberal contexts, the accumulation of human capital is self-regulated and is driven by a commitment to render one suitable for the market (Hilgers, 2013). Individuals are responsible for making choices to consume experiences and credentials that mark them as having marketable and valuable capital. Thinking and learning skills, such as those reflected in the discourses of SRL and 21CC, are themselves a form of human capital and also support the continued self-regulation of human capital acquisition. This relationship is apparent by considering the resemblances between SRL, 21CC, and the neoliberal self.

Like 21CC and SRL, a fundamental feature of neoliberal selfhood is self-direction. The model neoliberal citizen uses all resources and information to: (1) set goals; (2)

operate with as little oversight as possible; (3) respond to environmental changes; (4) commit actions to a purpose; and (5) strive for improvement (Clarke, 2005; Davies & Bansel, 2007). Those who are successful in neoliberal contexts make appropriate choices for which goals to pursue, plans for actions, strategies to use, personal adjustments, and how much to persist. Self-direction is a fundamental element to the logic of accountability and individual responsibility—two fundamental tenets of neoliberal discourse. Flexibility and adaptability are also key features of neoliberal selfhood that overlap with 21CC and SRL. As environments rapidly shift, being competitive and functional requires that individuals continuously change to meet new demands. Walkerdine (2003) describes this process as involving “self-invention” (p. 240). To engage in that “self-invention,” the neoliberal self remains in constant evaluation and judgment of self in all its minute particulars. These evaluations and judgments provide the necessary information about the self to make adjustments to thoughts, actions, goals, and strategies that are efficiently and productively responsive to changing situational demands. The neoliberal self is intensely attuned to the environment and its demands, and it must have the wherewithal to mobilize personal resources to respond appropriately to those demands. The neoliberal self sees adaptability and flexibility as a normal process rather than a problem.

Interpersonal management is another unifying point between neoliberal selfhood, SRL, and 21CC. Interpersonal management has to do with dialogue and mutual engagement in the achievement of a particular goal. Although seemingly positive, in neoliberal contexts there is a danger that such management can encourage individuals to strategically form relationships that serve a personal aim. The neoliberal self sees social connections and life activities as worthwhile to the extent that they are instrumentally tied to the goal of enhancing personal value and advancing a personal agenda. In this regard, other people are instruments for personal gain, competing with possibilities for solidarity and the pursuit of a social good. Although neoliberalism can be said to encourage social relationships, the connections people make serve narrow economic and personal interests. With increased competition for employment, individuals must form networks in order to be competitive. Individuals must be strategic about where they are and how they can form relationships with those who can improve their chances of gaining access to certain social and economic positions. Cultivating interpersonal management in instrumental terms can invite an intense self-interest and attention to how others can be used to serve personal needs, regardless of how the help might affect the help-giver, others in the context, or the reproduction of problematic social structures.

Aside from the conceptual alignment, SRL and 21CC are instrumentally tied to neoliberal selfhood. Consider risk-taking for example. In shifting environments, individuals may not always know what to do or have the technical skills to perform certain functions. Therefore, they must take risks. Thinking and learning skills can be viewed as essential for managing risks by evaluating which risks are worthwhile, contemplating adjustments, altering plans of action that optimize the outcomes of risk, and modulating negative consequences. Such risk management can be made possible through the self-evaluative techniques and quality of adaptations that are

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made possible via SRL. Although risk-taking, self-regulation, goal-setting, social interactions, flexibility, and responsibility all seem like attractive thinking and learning skills, it is difficult to ignore the neoliberal undertones to this discourse.

The Good Learner and Thinker as the Good Worker/Student

Although neoliberals do not have sole jurisdiction over thinking and learning skills, these skills are nonetheless deeply embedded in neoliberal values of self (Martin & McLellan, 2013). The good thinker and learner has become the correlate of the good worker and student. The good thinker and learner embodies and performs SRL and 21CC, which can be viewed as instantiations of neoliberal selfhood. The discourse of equal opportunity legitimizes efforts to cultivate thinking and learning skills in schooling.

Depictions of the 21st century are neoliberal. Therefore, it is reasonable to view the performance and embodiment of neoliberal selfhood as a source of economic empowerment. Thinking and learning skills can be associated with efforts to promote fair competition for employment and economic justice. As representations of the 21st century continue to look neoliberal, the need to inscribe neoliberal selfhood intensifies. Neoliberal structural arrangements validate the importance of neoliberal subjectivity. Thinking about the reverse relationship, the inscription of neoliberal subjectivity validates the importance of constructing the world in neoliberal ways. The more successful at inscribing neoliberal subjectivity, the more reasonable it may seem to construct the world to map onto this organizing principle of self so that one does not feel oppressed by structural arrangements.

Some might suggest that neoliberal rhetoric calling for the development of thinking and learning skills does not align with what primarily goes on in schools, nor does it align with what corporate executives, managers, and even teachers really want from individuals. That is, proponents of neoliberalism may not really want good learners and thinkers, but those who can follow orders and perform actions without questioning the purpose of tasks or the operation of power within a context. Or perhaps, corporate executives want people to be able to think and learn insofar as such skills are directed at a common interest—as defined by a corporate agenda and which is typically void of ethical concerns—that is shared by workers. This alignment would be a remarkable achievement given the competing interests of the owners of production and those who sell their labor. Inscribing SRL may help to achieve this alignment by providing individuals with the cognitive tools for self-governance within an institutional hierarchy (Vassallo, 2011). Thinking and learning skills can be associated with a particular form of discipline that is harnessed to support the kind of economic instrumentalism that favors the owners of production by enabling individuals to change themselves in accordance with institutional mandates and shifting economic circumstances. That which counts as thinking and learning skills can enable individuals to follow orders without direct and external oversight (Vassallo, 2011).

The potential contradiction in neoliberal discourse reifies the distinction between “actual” thinking and learning from engaging habitually in ways that conform to institutional mandates. However, in neoliberal discourse, the cultivation of thinking and learning is conformity to institutional mandates; thinking and learning skills constitute a new form of technical knowledge acquisition. Vassallo (2013) makes this point by suggesting that institutionalizing SRL invites homogeneity in the form of self and self-relationship that aligns with market logic. Individuals must be disciplined to an organizing principle rather than provided a script with specific steps for engagement. Hilgers (2013) also makes this point:

Bodies are the objects and targets of a power that disciplines them in order to maximise production. On the one hand, technologies of subjection aspire to regulate populations for optimal productivity; and on the other hand, agents subject themselves to and embody technologies of subjectivity that incline them to optimise their individual choices and to perceive the world through the principle of competition. Individuals develop a subjectivity, an ‘ethics of individual accountability that [is] deemed commensurable with neoliberal norms.’ (p. 83)

Although the rhetoric is about liberating the self, the neoliberal imperative is to harness and discipline self-regulatory capabilities so that individuals can organize themselves around free market logic. For this kind of discipline, individuals have to depend on teachers, counselors, and parents to form thinking and learning skills that enable them to self-regulate their choices that maximize personal value (Vassallo, 2013).

Disciplining Individualism

The neoliberal disciplining of self involves a commitment to inscribe individualism in order to produce a collection of self-governing individuals (Peters, 2001). As Apple (2006) writes, this commitment “involves radically changing how we think of ourselves...” (p. 23). Explaining, he writes, “...the educational task...is to change people’s understanding of themselves as members of collective groups. Instead, to support a market economy we need to encourage everyone to think of themselves as individuals who always act in ways that maximize their own interests.” (p. 23). As Davies and Bansel (2007) contend, in neoliberal contexts schools are continuously configured to produce highly individualized, responsabilized subjects. By “responsibilized,” the authors mean that individuals are construed as accountable for their own success and failures by virtue of their choices. As Martin and McLellan (2013) illustrate, 21st century classrooms are specifically structured to produce responsabilized individuals by committing to the study of self, as if it reflected static, isolated, controllable, and knowable features of persons.

The neoliberal commitment to individualism is reflected in the commitment to study and know the self, which in the SRL literature is a key for strategic self-management. Individuals must become scientists and investigate themselves by

recording and analyzing personal data, using certain techniques to change thought patterns or surroundings, and examining the data to see whether the change they desire has occurred. They must understand their strengths and weaknesses through the use of psychological tools and institutional discourse. Self-knowledge involves understanding environmental contingencies, and in so doing, being able to exert counter-control over environmental influences. The accumulation of such knowledge is made possible by tools for calculation and documentation, such as journals (e.g., Du Bois & Staley, 1997), graphs (e.g., Kitsantis & Zimmerman, 2006), logs (e.g., Zimmerman, Bonner & Kovach, 1996), and computer technology (e.g., Azevedo, Johnson, Chauncey & Graesser, 2011; Wang, Peng, Cheng, Zhou & Liu, 2011). These mechanisms are needed to support the continuous evaluation of self in order to figure out how to build on “strengths” and mitigate the affects of “weaknesses.” Self-knowledge is used to inform action for reforming and maximizing the self as it pertains to a “personal” goal, one that likely must be institutionally validated and valued.

This kind of individualism does not necessarily reflect autonomy and empowerment. The neoliberal self is not an autonomous chooser who operates independently from external mandates. Rather than liberating personal freedoms by inscribing responsible self-managers, neoliberalism actually produces limitations on the possibilities for selfhood by requiring individuals to discipline themselves in relation to free-market logic. The notion of self-management may invite the assumption that there is an absence of any external or social constraints; neoliberal conceptions of subjectivity create an illusion of autonomy. However, managing oneself to be adaptable, flexible, innovative, and a good problem solver is exactly the disciplinary goal of human capital theory (Fitzsimons, 2011). The application of human capital theory in practice converts the self into a kind of capital that can be invested, and it equates the self with productivity and adaptability. Through the perpetual struggle to fulfill self-potential, the individual is shaped by and harnessed to the economy in such a way as to maximize productivity. The neoliberal self not only defines autonomy in free market terms, it also fails to explicitly encourage social justice as a life principle because it contradicts market forces.

CRITICAL PSYCHOLOGY AND SELFHOOD

The neoliberal self is not an inevitable feature of persons. Rather, it is a self that is constituted in relation to particular times and places, such as in contemporary schooling that values neoliberal subjectivity (see Sugarman, in volume; Martin & McLellan, 2013). From a critical psychological perspective, the self is not *a priori*, static, and universal. Rather, the self is historically situated, constituted, emergent, and bounded. This treatment of self is not solely about content, but also form. It is not just characteristics of self that are historically constituted, but also what counts as self. The notion of “self” is a cultural and philosophical construction; it represents a particular kind of understanding (Martin & Sugarman, 2001). From this line of thinking, the ways in which we understand persons is mutable, shifting, contested,

and historically situated. However, in neoliberal discourse there are specific values for self and particular structural arrangements that validate, inscribe, and reward this self.

The neoliberal self is underpinned by certain notions of the self, which include bounded, empty, scientific, and expressive. The scientific self is componential, executive, rational, knowable, controllable, internal, and ahistorical. The scientific self compliments neoliberalism as it construes the self in individualistic, rational, and manageable terms, which are features of the self that are necessary for the pursuit of self-enhancement. Self-knowledge enables self-management, which is necessary for functioning within contexts that are characterized by choice, competition, and imperatives for continued personal improvement. As reflected in the discourse of 21CC and SRL, thinking and learning in relation to this self is defined by the embodiment of this scientific orientation to the self.

The expressive self shares a number of overlapping qualities with the scientific self. One major difference is the kind of individualism associated with expression. The expressive self is underpinned by a liberal commitment to encourage individuals to know, understand, explore, and express their unique personal features. The expressive self is less about scientific management in which technical procedures are enacted to shape the self in predetermined ways, and more about identifying unique features of the self and creating space for those features to develop and flourish. The expressive self can be associated with a neoliberal commitment to cultivate creativity, innovation, and entrepreneurialism. The assumption is that individuals have unique strengths that must serve as the driving force for new ideas. Knowing strengths and interests can enable individuals to pursue a path that best matches their characteristics. Both the scientific and expressive selves are committed to self-study, self-enhancement, and self-management. Although within educational psychology these selves are not construed in terms of economic value, these selves have clear connections to neoliberalism.

The expressive and scientific selves are related to what Gergen (2009) refers to as a bounded self, which is so termed because of the assumptions about psychological interiority. The bounded self is characterized by an understanding that selfhood is within the physical boundaries of the body. This self, as is true for the previous two discussed, is underpinned by problematic assumptions about the separation between self and world. Physical bodies are treated as housing psychological states, emotions, and thinking.

Notions of the scientific, expressive, and bounded selves contribute to what Cushman (1990) refers to as an empty self, which is so termed because it lacks connections with community, traditions, and meaning outside of consumption. Like the previous selves discussed, the empty self is masterful, bounded, and interested in self-betterment. Cushman situates the emergence and ubiquity of the empty self in the post-World War II era with the rise of the middle-class. During this time, individuals are shaped into those who can self-regulate their efforts to momentarily satisfy desires of consumption. Cushman describes the empty self as seeking “the

experience of being continually filled up by consuming goods, calories, experiences, politicians, romantic partners, and empathic therapists in an attempt to combat the growing alienation and fragmentation of its era” (p. 600). The neoliberal self is illustrative of the empty self. The concern is that thinking and learning skills can be easily entangled in efforts to shape individuals into scientific, bounded, expressive, and empty selves.

In order to untangle thinking and learning skills from neoliberalism, it may seem straightforward to avoid organizing the self around market principles of individualism, efficiency, consumption, self-betterment, and productivity. However, the focus on thinking and learning skills absent the explicit connection to the economy does not adequately resist neoliberalism. Rhetorically divorcing thinking and learning skills from neoliberal values does not mean that such skills will not serve a neoliberal function. Even if one focuses on cultivating thinking and learning skills independent of economic instrumentalism, these skills are featured in neoliberal selfhood and necessary for neoliberal arrangements. Therefore, good thinkers can be considered “ready-made” for a 21st century market. Pedagogy and curricula that support the cultivation of thinking and learning skills may ultimately support neoliberalism.

One way to untangle thinking and learning skills from neoliberalism is to value and validate different conceptions of persons, ones that are not scientific, expressive, empty, and bounded. Critical psychologists offer ways of constructing the self that vary from the individualism, isolationism, internalism, and emptiness of the neoliberal self. One such self is called communal selfhood (Martin, 2007). It is a self that is understood to take form and emerge in a historical time and place. The communal self is relational and recognizes its historical constitution by reflecting on its constitutive forces. This self is about awareness, but not for the purposes of self-mastery or control, but connectedness and civic responsibility.

Critical psychologists discuss other notions of the self, which include, but are not limited to the dialogic self (Hermans, 2001), hermeneutic self (Sugarman & Martin, 2010), and relational being (Gergen, 2009). These concepts are organized around the idea that self is emerging, in process, constitutive, historical, and not independent of the workings of power. Gergen’s (2009) terminology reflects somewhat of a departure from other notions. He uses the term “being” to avoid the essentialism of self that is so fitting for neoliberalism. Gergen is concerned that the notion of “self” produces the self, which is a concept that connotes coherence, calculability, and boundaries of identity.

Even with critical conceptions of self, the danger of mind and world dualism lingers—a foundational condition for pursuing mastery over oneself. If the notion of self is difficult to avoid, then perhaps the organizing principle of self can shift. That is what many critical psychologists work to do (e.g. see Corcoran, 2009; Sugarman, 2009). The organizing principle is not to measure, know, proclaim, express, manage, and improve features of self, but engage in struggle to understand and change structures of power that hold existing forms of language and selfhood in place. Sources of information about the self are not seen as individual or communal

qualities, but qualities of discourse. Thus, the organizing principle of self examines those historically-contingent discursive practices that reify selfhood. The principle of self brings one to continuously call into question the inscription, practice, and process of identity.

With these kinds of selves at its foundation, thinking and learning skills can function differently or may even dissolve as a sensible educational aim. In contemporary education discourse, thinking and learning skills complement the scientific, empty, bounded, and expressive selves, in addition to the over-responsibilized individual. Teaching individuals strategic self-mastery to overcome educational inequalities may not make sense in a context of communal responsibility and solidarity. That is not to say that thinking and learning skills are not valuable. Raising concern about thinking and learning skills, and challenging its presence in schooling is not about endorsing inflexibility, rote learning, homogenization, technical procedures, stagnation, and habituation. Like Corcoran (2012), this critique is about ensuring that pedagogical and curricula aims are not endorsing what they are supposed to resist. It is not about trying to reproduce the status quo by disabling individuals from thinking and learning in ways that improve social and democratic processes. However, when foundational assumptions of self that underpin thinking and learning skills are ignored, it is difficult to resist the cultivation of the neoliberal self.

CONCLUSION

An educational commitment to the institutionalization of thinking and learning skills may seem appealing to those who endorse humanistic and democratic purposes of schooling. Given this association, an educational focus on teaching and learning skills can be rationalized as resistance to neoliberalism and its problematic requirements for selfhood. However, it is through these skills that neoliberal ideology is at work. Thinking and learning skills, especially those related to SRL and 21CC, are entangled in a neoliberal commitment to foster adaptive, self-regulated, flexible, problem solvers who can navigate and compete in the 21st century. “Liberating” individual entrepreneurial freedoms and skills within an institutional framework characterized by values for efficiency and productivity must rely on the inscription of a particular brand of selfhood, which is radically individualistic, committed to self-betterment, responsabilized, strategically self-governing, and construed in terms of human capital. This selfhood is associated with exacerbating inequality, dehumanizing students, and eroding democratic participation and civic virtue.

The primary goal of this analysis is to invite conversations about thinking and learning skills that provide the conceptual and pedagogical tools to divorce these skills from neoliberalism. A way to achieve this goal is to examine conceptions of selfhood that underpin the discourse of thinking and learning skills. As Martin and McLellan (2013) argue, the intrusion of certain types of psychological discourse within schooling contributes to the production of the self that aligns with

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neoliberalism. Schools can also be places where selfhood is formed and inscribed differently. Inscribing the selves of critical psychology can invite a different interpretation, meaning, and purpose of thinking and learning skills.

REFERENCES

- Agostinone-Wilson, F. (2006). Downsized discourse: Classroom management, neoliberalism, and the shaping of correct workplace attitude. *Journal for Critical Education Policy Studies*, 4, 129–158.
- Anyon, J. (1981). Social class and school knowledge. *Curriculum Inquiry*, 11, 3–42.
- Apple, M. W. (2006). Understanding and interrupting neoliberalism and neoconservatism in education. *Pedagogies: An International Journal*, 1, 21–26.
- Azevedo, R., Johnson, A., Chauncey, A., & Graesser, A. (2011). Use of hypermedia to assess and convey self-regulated learning. In B. J. Zimmerman & D. H. Schunk (Eds.), *Handbook of self-regulation of learning and performance* (pp. 102–121). New York, NY: Routledge.
- Bansel, P. (2007). Subjects of choice and lifelong learning. *International Journal of Qualitative Studies in Education*, 20, 283–300.
- Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis with special reference to education* (3rd ed.). Chicago, IL: University of Chicago Press.
- Bernstein, B. (1971). *Class, codes and control*. London, UK: Routledge.
- Bialostok, S., & Kamberelis, G. (2012). The play of risk, affect, and the enterprising self in a fourth-grade classroom. *International Journal of Qualitative Studies in Education*, 25, 417–434.
- Boekaerts, M., & Cascallar, E. (2006). How far have we moved toward the integration of theory and practice in self-regulation? *Educational Psychology Review*, 18, 199–210.
- Boekaerts, M., & Corno, L. (2005). Self-regulation in the classroom: A perspective on assessment and intervention. *Applied Psychology: An International Review*, 54, 199–231.
- Boyles, D. (2005). *Schools or markets? Commercialism, privatization, and school-business relationships*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Briscoe, F. M. (2012). Anarchist, neoliberal, & democratic decision-making: Deepening the joy in learning and teaching. *Educational Studies*, 48, 76–102.
- Burbules, N. C., & Berk, R. (1999). Critical thinking and critical pedagogy: Relations, differences, and limits. In T. S. Popkewitz & L. Fendler (Eds.), *Critical theories in education: Changing terrains of knowledge and politics* (pp. 45–65). New York, NY: Routledge.
- Clarke, J. (2005). New labour's citizens: activated, empowered, responsabilized, abandoned? *Critical Social Policy*, 25, 447–463.
- Cleary, T., & Zimmerman, B. J. (2004). Self-regulation empowerment program: A school-based program to enhance self-regulated and self-motivated cycles of student learning. *Psychology in the Schools*, 41, 537–550.
- Corcoran, T. (2009). Second nature. *British Journal of Social Psychology*, 48, 375–388.
- Corcoran, T. (2012). Health inclusive education. *International Journal of Inclusive Education*, 16, 1033–1046.
- Cushman, P. (1990). Why the self is empty: Toward a historically situated psychology. *American Psychologist*, 45, 599–611.
- Davies, B., & Bansel, P. (2007). Neoliberalism and education. *International Journal of Qualitative Studies in Education*, 20, 247–259.
- Dewey, J. (2004). *Democracy and education* (Originally published in 1916). Mineola, NY: Courier Dover Publications.
- Du Bois, N. F., & Staley, R. K. (1997). A self-regulated learning approach to teaching educational psychology. *Educational Psychology Review*, 9, 171–197.
- Dweck, C. (2009). Who will the 21st-century learners be? *Knowledge Quest*, 38, 8–9.
- Ellis, C., & Folley, S. (2010). Using student assessment choice and e-assessment to achieve self-regulated learning. In G. Dettori & D. Persico (Eds.), *Fostering self-regulated learning through ict* (pp. 89–104). Hershey, PA: Information Science Reference.

THE ENTANGLEMENT OF THINKING AND LEARNING SKILLS

- Fitzsimons, P. (2011). *Governing the self: A Foucauldian critique of managerialism in education*. New York, NY: Peter Lang.
- Foucault, M. (2008). In G. Burchell (Trans.), *The birth of biopolitics: Lectures at the collège de France, 1978–1979*. New York, NY: Palgrave Macmillan.
- Freire, P. (1987). *Education for critical consciousness*. New York, NY: Continuum.
- Freire, P. (2000). *Pedagogy of the oppressed*. New York, NY: Continuum.
- Gee, J. P. (2004). *Situated language and learning: A critique of traditional schooling*. New York, NY: Routledge.
- Gergen, K. J. (2009). *Relational being: Beyond self and community*. New York, NY: Oxford University Press.
- Goodman, G. (in volume). School sucks! Deconstructing Taylorist obsessions. In T. Corcoran's (Ed.), *Psychology in education: Critical theory–practice*. Rotterdam, NL: Sense.
- Gorlewski, J. (2011). *Power, resistance, and literacy: Writing for social justice*. Charlotte, NC: Information Age Publication.
- Harvey, D. (1990). *The condition of postmodernity*. Cambridge, MA: Blackwell Publishers Inc.
- Harvey, D. (2007). *A brief history of neoliberalism*. Cambridge, MA: Oxford University Press.
- Hermans, H. J. (2001). The dialogical self: Toward a theory of personal and cultural positioning. *Culture & Psychology, 7*, 243–281.
- Hilgers, M. (2013). Embodying neoliberalism: Thoughts and responses to critics. *Social Anthropology, 21*, 75–89.
- Housand, A., & Reis, S. M. (2008). Self-regulated learning in reading: Gifted pedagogy and instructional settings. *Journal of Advanced Academics, 20*, 108–136.
- Hursh, D. (2000). Neoliberalism and the control of teachers, students, and learning: The rise of standards, standardization, and accountability. *Cultural Logic, 4*.
- Järvelä, S. (2011). How does help seeking help? – New prospects in a variety of contexts. *Learning and Instruction, 21*, 297–299.
- Jerald, C. D. (2009). *Defining a 21st century education* (pp. 1–71). The Center for Public Education. Retrieved January 2013, from http://www.cfsd16.org/public/_century/pdf/Defininga21stCenturyEducation_Jerald_2009.pdf
- Johnson, A. W. (2013). Turnaround as shock therapy race, neoliberalism, and school reform. *Urban Education, 48*, 232–256.
- Journell, W. (2011). Teaching the 2008 Presidential Election at three demographically diverse schools: An exercise in neoliberal governmentality. *Educational Studies, 47*, 133–159.
- Kitsantis, A., & Zimmerman, B. J. (2006). Enhancing self-regulation of practice: The influence of graphing and self-evaluative standards. *Metacognition and Learning, 1*, 201–212.
- Lakes, R. D., & Carter, P. A. (2011). Neoliberalism and education: An introduction. *Educational Studies, 47*, 107–110.
- Lipman, M. (1985). Thinking skills fostered by philosophy for children. *Thinking and Learning Skills, 1*, 83–108.
- Lipman, M. (2003). *Thinking in education* (2nd ed.). Cambridge, UK: Cambridge University Press.
- Martin, J. (2004). Self-regulated learning, social cognitive theory, and agency. *Educational Psychologist, 39*, 135–145.
- Martin, J. (2007). The selves of educational psychology: Conceptions, contexts, and critical considerations. *Educational Psychologist, 42*, 79–89.
- Martin, J., & McLellan, A. (2013). *The education of selves: How psychology transformed students*. New York, NY: Oxford University Press.
- Martin, J., & Sugarman, J. (2001). Is the self a kind of understanding? *Journal for the Theory of Social Behaviour, 31*, 103–114.
- Marzano, R. J., & Heflebower, T. (2012). *Teaching & assessing 21st century skills. The classroom strategies series*. Bloomington, IN: Marzano Research Laboratory.
- Matusov, E. (2011). Imagining no child left behind freed from neoliberal hijackers. *Democracy and Education, 19*, 1–8.

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- McCaslin, M., Bozack, A. R., Napolean, L., Thomas, A., Vasquez, V., Wayman, V., & Zhang, J. (2006). Self-regulated learning and classroom management: Theory, research and considerations for classroom practice. In C. M. Evertson & C. S. Weinstein (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues* (pp. 232–252). Mahwah, NJ: Lawrence Erlbaum.
- McInerney, D. M. (2011). Culture and self-regulation in educational contexts: Assessing the relationship of cultural group to self-regulation. In B. J. Zimmerman & D. H. Schunk (Eds.), *Handbook of self-regulation of learning and performance* (pp. 442–464). New York, NY: Routledge.
- Mishra, P., Fahnoe, C., Henriksen, D., & Deep-Play Research Group. (2013). Creativity, self-directed learning and the architecture of technology rich environments. *TechTrends*, 57, 10–13.
- Organization for Economic Development. (2005). *The definition and selection of key competencies: Executive summary*. Retrieved January 2013, from <http://www.oecd.org/pisa/35070367.pdf>
- Paris, S. G., & Paris, A. H. (2001). Classroom applications of research on self-regulated learning. *Educational Psychologist*, 36, 89–101.
- Perry, N., VandeKamp, K. O., Mercer, L. K., & Nordby, C. J. (2002). Investigating teacher-student interactions that foster self-regulated learning. *Educational Psychologist*, 37, 5–15.
- Peters, M. A. (2001). *Poststructuralism, marxism, and neoliberalism: Between theory and politics*. Lanham, MD: Rowman & Littlefield.
- Read, J. (2009). A genealogy of homo-economicus: Neoliberalism and the production of subjectivity. *Foucault Studies*, 6, 25–36.
- Rose, N. (1998). *Inventing our selves: Psychology, power, and personhood*. Cambridge, UK: Cambridge University Press.
- Saltman, K. J. (2006). The right-wing attack on critical and public education in the United States: From neoliberalism to neoconservatism. *Cultural Politics*, 3, 339–358.
- Schmidt, J. (2000). *Disciplined minds: A critical look at salaried professionals and the soul-battering system that shapes their lives*. Rowman & Littlefield Publishers Incorporated.
- Shor, I. (1992). *Empowering education: Critical teaching for social change*. Chicago, IL: University of Chicago Press.
- Sugarman, J., & Martin, J. (2010). Agentive hermeneutics. In S. Kirschner & J. Martin (Eds.), *The sociocultural turn in psychology: Contemporary perspectives on the contextual emergence of mind and self* (pp. 159–179). New York, NY: Columbia University Press.
- Sugarman, J. (2009). Historical ontology and psychological description. *Journal of Theoretical and Philosophical Psychology*, 29, 5–15.
- Sugarman, J. (in volume). Neo Foucaultian approaches to critical inquiry in the psychology of education. In T. Corcoran's (Ed.), *Psychology in education: Critical theory-practice*. Rotterdam, NL: Sense.
- Taylor, F. W. (1914). *The principles of scientific management*. New York, NY: Harper & Brothers Publishers.
- Trilling, B., & Fadel, C. (2009). *21st century skills: Learning for life in our times*. San Francisco, CA: Jossey-Bass.
- Vassallo, S. (2011). Implications of institutionalizing self-regulated learning: An analysis from four sociological perspectives. *Educational Studies*, 47, 26–49.
- Vassallo, S. (2013). *Self-regulated learning: An application of critical educational psychology*. New York, NY: Peter Lang.
- Walkerline, V. (2003). Reclassifying upward mobility: Femininity and the neo-liberal subject. *Gender and Education*, 15, 237–248.
- Wang, M., Peng, J., Cheng, B., Zhou, H., & Liu, J. (2011). Knowledge visualization for self-regulated learning. *Journal of Educational Technology & Society*, 14, 28–42.
- Wolters, C. A. (2010). *Self-regulated learning and the 21st century competencies*. The William and Flora Hewlett Foundation. Retrieved November 2012, from <http://www.hewlett.org/library/grantee-publication/self-regulated-learning-and-21st-century-competencies>
- Yowell, C. M., & Smylie, M. A. (1999). Self-regulation in democratic communities. *The Elementary School Journal*, 99, 49–490.

THE ENTANGLEMENT OF THINKING AND LEARNING SKILLS

- Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. E. Boekaerts, P. R. Pintrich, & M. E. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13–39). San Diego, CA: Academic Press.
- Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory into practice*, *41*, 64–70.
- Zimmerman, B. J., Bonner, S., & Kovach, R. (1996). *Developing self-regulated learners: Beyond achievement to self-efficacy*. Washington, DC: American Psychological Association.

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