

SELF CONCEPT: SHOULD WE FOLLOW COGNITIVE OR SOCIAL CONSTRUCTION WITH STUDENTS WITH DISABILITIES?

By

LAURA RADER

Professor of Special Education, Department of Educational Leadership and Special Education, The City College of New York.

ABSTRACT

Initial investigations into the development of self-concept have been largely descriptive and focused primarily on the concept of self-representation, namely, how the me-self evolves across childhood and adolescence. Investigators sought to document developmental differences in self-representation through coding of spontaneously generated descriptions of the self. These efforts identified broad, discontinuous, qualitative skills in how the self was described. However, there was little analysis of the structural organization of self-concept. Interest in self-processes has burgeoned in the past decade within many branches of psychology. Riding on the bandwagon of the cognitive revolution, self-theorists reconceptualized the self as a cognitive construction that is quite functional in bringing organization and meaning to one's experiences. In addition to psychologists' emphasis on self-concept, educators have become interested in the implications of self-concept among special populations within the school setting. Thus, this paper explores the common principles across these newer frameworks and provides educators with specific practical implications to use in the classroom.

Key Words: Self-Concept, Physical Disabilities, Adolescents, Special Education.

INTRODUCTION

Interest in self-concept has recently escalated, in part, given increasing emphasis in its functional role in development. Thus, far from being an epiphenomenon, self-concept has taken center stage as a dynamic actor, playing a variety of roles (Harter, 1999). In fact, it is commonly asserted that the very architecture of self-concept theory, by evolutionary design, has been extremely functional across the life span (Harter, 1999).

Self-concept refers to self-evaluation or self-perception and it represents the sum of an individual's beliefs about his or her own identity attributes. A student's self-concept is dynamic and causality is complex (Hadley, Hair & Moore, 2008). That is, problems and difficulties can lower self-concept; but low self-concept can also cause problems (Hadley, Hair & Moore, 2008). Having a negative self-concept has been associated with maladaptive behaviors and emotions. In contrast, having a positive self-concept has been linked to positive social and emotional development.

Initial investigations into the development of self-concept

have been largely descriptive and focused primarily on the content of self-representations, namely, how the Me-self evolves across childhood and adolescence (Harter, 1983b). Investigators sought to document developmental differences in self-representations through the coding of spontaneously generated descriptions of the self (Bannister & Agnew, 1977; Guardo & Bohan, 1971; McGuire, 1981; Montemayor & Eisen, 1977; Mullener & Laird, 1971; Rosenberg, 1979). These efforts identified broad, discontinuous, qualitative shifts in how the self was described. However, there was little analysis of the structural organization of self-concepts.

Review of Literature

Self-Concept-Cognitive Construction

Given that many theorists (e.g., Epstein, 1973, 1981; Greenwald, 1980; Markus, 1980) began to forcefully argue that self-concept theory was a cognitive construction, an analysis of how cognitive-developmental shifts might be implicated in the age differences that had been documented thus represented the next conceptual approach. It was suggested (Harter,

1983b) that the broad developmental changes observed across early childhood, later childhood, and adolescence could be interpreted within a Piagetian framework. Thus, the finding that the young child described the self in terms of concrete, observable characteristics such as physical attributes, material possessions, behaviors and preferences that were not coherently organized was consistent with the cognitive abilities and limitations of the preoperational period (Harter, 1999). The earlier studies had reported that in middle to later childhood, the self was described in terms of trait like constructs (e.g., smart, honest, friendly, shy) that would require the type of hierarchical organizational skills to emerge during Piaget's period of concrete operations.

For example, a trait label such as "smart" could be cognitively viewed as a higher-order generalization that subsumed the behavioral manifestations of scholastic, competence in several school subjects (e.g., doing well at reading, spelling and math). For the period of adolescence, earlier findings had documented the emergence of more abstract self definitions based on psychological processes such as inner thoughts, emotions, attitudes and motives. This type of self-portrait was consistent with the formal operational advances identified by Piaget, for example, the ability to construct higher-order abstractions and the capacity for introspection (Harter, 1999). However, it has become apparent that this broad, three-stage Piagetian analysis did not do justice to the complexity of self-concept development across childhood and adolescence.

Piagetian theory has painted a picture of cognitive development that was "too monolithic, universal, and endogenous" (Case, 1992). For example, findings documenting the tremendous unevenness or decalage in development across domains argued against some single, underlying set of developing cognitive structures (Costanzo, 1991; Graziano & Waschull, 1995). Moreover, the theory has been considered to be primarily descriptive, with insufficient attention to specific underlying processes and transition rules. The broad shifts that Piaget identified have also been viewed as too discontinuous. In addition, there has been little evidence

on individual differences in the rate of cognitive development, or on the potential for different pathways of development. Finally issues involving contextual factors that might affect cognitive development were virtually ignored, for example, specific instructional and socialization experiences as well as broader cultural influences (Harter, 1999).

Interest in self-processes has burgeoned in the past few decades within many branches of psychology. Cognitive-developmentalists, particularly those of a neo-Piagetian persuasion, have addressed normative changes in the emergence of a self (e.g., Case, 1985, 1992; Fischer, 1980; Harter, 1997; Higgins, 1991). Developmentalists interested in memory processes have also described how the self is crafted through the construction of narratives that provide the basis for autobiographical memory (Fivush, 1987; Nelson, 1986, 1993; Snow, 1990). Theorists, building upon the earlier efforts of Ainsworth (1973, 1974) and Bowlby (1980), have provided new insights into how interactions with caregivers come to shape the representations of self and others that young children come to construct (Bretherton, 1991, 1992, Cassidy, 1990; Cicchetti, 1990, 1991; Cicchetti & Beeghly, 1990; Pipp, 1990; Sroufe, 1990). Clinicians with the psychodynamic tradition have also contributed to our understanding of how early socialization experiences come to shape the structure and content of self-evaluations and contribute to psychopathology (Blatt, 1995; Bleiberg, 1984; Kemberg, 1975; Kohut, 1977; Winnicott, 1965). Moreover, social and personality theorists have devoted considerable attention to those processes that produce individual differences in perceptions of self, particularly among adults (see Baumeister, 1987, 1993; Epstein, 1991; Kihlstrom, 1993; Markus & Woo, 1987; Steele, 1988).

Riding on the bandwagon of the cognitive revolution, self-theorists reconceptualized the self as a cognitive construction that is quite functional in bringing organization and meaning to one's experiences (Harter, 1999). Several common principles across these newer frameworks represent contemporary solutions to those problems identified in Piaget's theory.

For example, a greater number of structural levels have been identified, with more emphasis on the continuity of development. Higher structures have been considered to build upon and incorporate lower structures that become more uncoordinated. Decalage has been accepted as a rule, rather than the exception; therefore, it has been expected that the particular level of development at which one is functioning will vary across different domains of knowledge. The particular processes and transition rules that govern such development have also become more precise. For example, certain researchers focused on memory functions and their development (e.g., Case, 1985, 1992; Pascual-Leone, 1988). Others highlighted the role of the atomization of skills (e.g., Case, 1985; Siegler, 1991). Siegler, from an information-processing perspective, has also identified the processes of encoding and strategy construction. Encoding involves the identification of the most important features of objects and events that form the basis for internal representation. Strategy construction refers to those processes through which concepts are combined to form categories or higher-order generalizations.

Self-Concept-Social Construction

Self-concept is constructed from social experiences in the family and at school. Study of self concept requires information not only on what the student thinks about him/herself, but also about the variables related to identity, the persons close to him/her and the effects of group membership on the construction of social identity (Cambra & Silvestre, 2003). Identity is conceptualized as a self-theory, a conceptual structure composed of self-representational and self-regulatory constructs (Berzonsky, 2004).

Such processes may be influenced by social and contextual factors. For example, the child's culture as well as the more proximal family and social milieu may play an important role in dictating what features of events and objects, including self-concept, are most salient and are therefore to be encoded (Rogoff, 1990; Vygotsky, 1978). Moreover, the child's experience may also partially determine how particular structures are coordinated

(Costanzo, 1991). The inclusion of contextual variables also contributes to an understanding of individual differences in the rate and manner in which structures are integrated. Although experience, instruction and practice may influence the rate of progression through cognitive levels, most acknowledge that there are factors that constrain the upper limit that one may achieve at any given age. For example, brain development, in general, and working memory capacity, in particular, may represent such constraints.

In applying many of these principles to self-concept development, it is seen, for example, that a greater number of age-related levels can now be identified. Moreover, there has been more emphasis on how a given level of self-understanding builds upon the previous level. Processes through which concepts are combined to form categories or higher-order generalizations can be invoked to explain the developmental trajectory of self-concepts, as well as the tremendous individual differences that can be found at particular age levels (Harter, 1999).

In addition to psychologists' emphasis on self-concepts, educators have become interested in the implications of self-concepts among special populations within the school setting (e.g., those identified as learning disabled and behaviorally disordered). In part, attention to self-concepts was heightened by federal legislation in 1975 mandating that children with educational handicaps receive public education in the least restrictive environment. There has been particular concern over whether the self-concepts of special education students are more negative in self-contained classrooms where they might be stigmatized or in mainstream classrooms where they might evaluate themselves more unfavorably in comparison to their normally achieving peers (Coleman, 1983, 1985; Kistner, Haskett, White, & Robbins, 1987; Renick & Harter, 1989; Silverman & Zigmund, 1983; Strang, Smith, & Rogers, 1978).

Most investigators have focused on general self-concept, anticipating that the difficulties and related failures of special education students would negatively affect their

overall sense of personal self-concept. Implicit in this formulation is the assumption that success is valued by such students and that, therefore, their perceptions of their overall competence are critical determinants of their self-concept (Renick & Harter, 1989). However, these expectations have not, for the most part, been put to systematic, empirical tests. That is, investigators have not directly examined the processes through which special education students' judgments about their overall worth are formed. Certain special education students may be able to maintain relatively high self-concept because they have more favorable evaluations in domains rated as important, can discount the importance of areas in which they have weaknesses, or both. As other investigators have observed, if special education students can dissociate their sense of self-concept from certain arenas and focus on other arenas, then self-concept should not suffer (Tollefson, 1982). Moreover, in most research designs, investigators have compared the self-concepts of special education students with those of normally achieving students, inferring generalizations about each group, as a whole. Little attention has been paid to individual differences within special populations.

Harter and Renick (1988) investigated the relationship between global self-concept and the domain-specific self-concepts for children with learning disabilities. They found a strong relationship between children's perceptions of global self-concept, their perceived physical appearance, and their perceived general intellectual ability. Other investigators have found different relationships between global self-concept and the domain-specific self-concepts. These differences can be explained only partly as a function of the population studied. For example, in two separate studies of gifted students, scholastic competence and social acceptance demonstrated the strongest relationships to global self-concept in one study (Byrne & Schneider, 1988).

Given the heterogeneity among students identified as disabled, it has been important to examine the differences in specific classifications of disability. Specifically, some research findings indicate that

individuals with physical disabilities tend to have lower self-concepts than their able-bodied counterparts (Gordon, 1965; Kapp-Simon, 1986; Lawrence & Winschel, 1973; Tam, 1991; Tam & Watkins, 1995). There may be several explanations for those findings. Physical disability often acts as a negative stimulus and leads to social discrimination. According to the perceptions of the general population, being physically disabled often means being stigmatized and placed in a disadvantaged social position. Culture-specific misattributions of the causes and effects of disabilities may exaggerate these unfavorable aspects, and the individuals with disabilities are predisposed to feel inferior to able-bodied persons (Tam, 1998).

In Tam's (1995b) study, the participants with physical disabilities generally rated physical abilities as more salient than participants without disabilities did. Moreover, the participants with disabilities regarded meeting family responsibilities as one of the most prominent areas in their lives. However, the presence of unavoidable physical disabilities and less favorable employment status (Tam, 1988, 1995b) is likely to be a serious blow to the pride of those with physical disabilities and would probably strongly influence their overall self-concept.

Students with physical disabilities often experience constant disability-related environmental and social stresses (DeLoach, 1981) that may bar them from a satisfactory integration into the community. This constant lack of positive experience and lack of respect from others may lead to lower self-concept (Fists, 1972). Self-concept discrepancy is likely to be associated with painful emotional experiences, particularly when family scrutiny, social comparisons, and impersonal evaluations keep the discrepancy chronically in sight (Higgins, Klein, & Strauman, 1985).

Conclusion

The review of research presented above indicates that there has been little research about the self-concepts of individuals with physical disabilities, although self-concept is a very important construct for understanding the psychology of that minority population. Recently,

researchers have explored disability-related attitudes, beliefs and behaviors. Those studies also have focused on the effects of sociocultural factors on health beliefs and attitudes toward people with a disability (Berry, 1994; Cook et al, 1994; Pande, 1994; Pande & Dalai, 1994). However, these studies are still preliminary, and their focus has been mainly on social beliefs and attitudes toward disability rather than on exploring the self-concepts of people with physical disabilities and the implications for self-determination.

Practical Implications

As mentioned above, the factors that influence the formation of self-concept are multiple and interrelated, to such an extent that exhaustive description and differentiation is practically impossible. Educational conditions, such as teaching style, are important because they have a bearing on peer relations. Family factors also have an influence on students' reactions and attitudes, which also condition interaction with others. Thus, helping improve self-concept is as varied as the influencing factors.

However, there are four strategies that teachers should consider when trying to improve students' self-concept. First, it is important to praise a student's accomplishments or successes by addressing the role that the student played in producing positive outcomes. Feedback is most effective when it addresses the role that the student played in producing positive outcomes. For example, rather than simply saying "It's great that you got a good grade on your paper," bring up the student's actions and abilities by saying "You worked so hard on the paper, and you really deserve the good grade that you got".

Second, it is important to praise a student's effort and improvement in skills. Students who focus on improving their skills gain self-concept through growth. In contrast, students who only focus on achievements base their self-concept solely on their successes and failures. Thus, it is important to praise efforts and improvement in skills in addition to the praise directed towards their accomplishments.

Third, it is important to refrain from negative comments or

feedback. Praise and positive reinforcement are more effective in changing behavior and sustaining positive behavior. It is essential to describe and praise what the student should do, rather than what they should not do.

Fourth and final, it is important to work with students to improve skills in which he or she feels deficient. Specifically, it is important to first work with students to identify and discuss elements of tasks that show room for improvement. Then, it is important to provide the guidance, support and resources needed to accomplish the improvement. Strategies include helping students practice skills, giving them tips, or suggesting relevant workshops or programs to enhance skills.

References

- [1]. Ainsworth, M. (1973). The development of infant-mother attachment. In B. Caldwell & Ricciuto (eds). *Review of Child development research* (Vol. 3. pp. 1-94). Chicago: University of Chicago Press.
- [2]. Ainsworth, M. (1974). Infant-mother attachment and social development. Socialization as a product of reciprocal responsiveness to signals. In M. Richards (Eds). *The Integration of the child into the social world* (pp. 99-135). Cambridge, UK: Cambridge University Press.
- [3]. Bannister, D., & Agnew, J. (1977). The child's construing of self. In J. Cole (ed). *Nebraska Symposium on Motivation* (Vol. 26. pp. 99-125). Lincoln: University of Nebraska Press.
- [4]. Baumeister, R.F. (1987). How the self became a problem: A psychological adjustment to multiple sclerosis. *Social Science and Medicine*, 45(3) 411-418.
- [5]. Baumeister, R.F. (1993). Understanding the inner nature of low self-esteem: Uncertain, fragile, protective, and conflicted. In R.F. Baumeister (ed). *Self-esteem: The puzzle of low self-regard* (pp. 201-218). New York, Plenum.
- [6]. Bleiberg, E. (1984). Narcissistic disorders in children. *Bulletin of Menninger Clinic*, 48, 501-517.
- [7]. Berry, J. W. (1994). Disability attitudes, beliefs and behaviors: Overview of an international project in community based rehabilitation. Paper presented at the *XII International Congress on Cross-Cultural Psychology*,

Pamplona, Spain.

- [8]. **Berzonsky, M. (2004)**. Identity processing style, self-construction and personal epistemic assumptions: A social-cognitive perspective. *European Journal of Developmental Psychology*, 1(4) 303-315.
- [9]. **Blatt, S. J. (1995)**. Representational structures in psychopathology. In D. Cicchetti & S. Toth (eds), *Rochester Symposium on Developmental Psychopathology: Emotion, cognition, and representation* (Vol. 6, pp. 1-34). Rochester, Ny: University of Rochester Press.
- [10]. **Bowlby, J. (1980)**. *Attachment and loss: Vol. 3. Loss, sadness and depression*. New York: Basic Books.
- [11]. **Bretherton, I. (1991)**. Pouring new wine into old bottles. The social self as internal working model. In M. R. Gunnar & L.A. Stoufe (Eds). *Self processes and development: The Minnesota Symposia on Child Development* (Vol. 23, pp. 1-41). Hillsdale, NJ: Erlbaum.
- [12]. **Bretherton, I. (1992)**. The origins of attachment theory: John Bowlby and Mary Ainsworth, *Developmental Psychology*, 28, 759-775.
- [13]. **Byrne, B.M. & Schneider, B.H. (1988)**. Perceived competence scale for children. Testing for factorial validity and invariance across age and ability. *Applied Measurement in Education*, 1, 171-187.
- [14]. **Cambra, C., & N. Silvestre (2003)**. Students with special needs in the inclusive classroom: social integration and self-concept. *European Journal of Special Needs Education* Vol. 18, No2 pp 197-208.
- [15]. **Case, R. (1985)**. *Intellectual development: Birth to adulthood*. New York: Academic Press.
- [16]. **Case R. (1992)**. *The mind's staircase*. Hillsdale, NJ: Erlbaum.
- [17]. **Cassiday, J. (1990)**. Theoretical and methodological consideration in the study of attachment and the self in young children. In M. T. Greenberg, D. Cicchetti, & E. M. Cummings (Eds). *Attachment in the preschool years: Theory, research and intervention* (pp. 87-120). Chicago: University of Chicago Press.
- [18]. **Cicchetti, D. (1990)**. The organization and coherence of socioemotional, cognitive, and representational development. Illustration through a developmental psychopathology perspective on down syndrome and child maltreatment. In R. Thompson(Ed). *Nebraska Symposium on Motivation. Sociemotional development* (Vol. 36, pp. 266-375). Loncoln, University of Nebrasks Press.
- [19]. **Cicchetti, D. (1991)**. Fractures in the crystal: Developmental psychopathology and the emergence of self. *Developmental Review*, 11, 271-287.
- [20]. **Cicchetti, D., & Beeghly, M. (1990)**. Perspectives on the study of the self in atypical populations. In D. Cicchetti & M. Beeghly (Eds). *The self in transition: Infancy in childhood* (pp 1-15). Chicago: University of Chicago Press.
- [21]. **Coleman, J. M. (1983)**. Handicapped labels and instructional segregation: Influences on children's self-concepts versus the perceptions of others. *Learning Disability Quarterly*, 6, 3-11.
- [22]. **Coleman, J.M. (1985)**. Achievement level, social class, and the self-concepts of mildly handicapped children. *Journal of Learning Disabilities*, 18, 260-30.
- [23]. **Cook, P., Pande, N., Berry, J. W. Samuel, M. Maclachlan, M., & Lie, G.T. (1994)**. Culture, health and disability. Paper presented at the *XII International Conference of Cross-Cultural Psychology*, Pamplona, Spain.
- [24]. **Costanzo, P.R. (1991)**. Morals, mothers and memories: The social context of developing social cognition. In R.Cohen & R. Siegler (Eds.) *Context and development* (pp. 91-132). Hillsdale, NJ: Erlbaum.
- [25]. **DeLoach, C. (1981)**. *Adjustment to severe disability: Metamorphosis*. New York: Mcgraw-Hill.
- [26]. **Epstein, S. (1973)**. The self-concept revisited or a theory of a theory. *American Psychologist*, 28, 405-416.
- [27]. **Epstein, S. (1981)**. The unity principle versus the reality and pleasure principles, or the tale of the scorpion and the frog. In M.D. Lynch, A.A. Norem-Hebeisen, & K. Gergen (Eds.), *Self concept: Advances in theory and research* (pp. 82-110). Cambridge, MA: Ballinger.
- [28]. **Epstein, S. (1991)**. Cognition-experimental self

- theory: Implications for developmental psychology. In M.R. Gunnar & L.A. Sroufe (Eds.), *Self processes and development: The Minnesota Symposia on Child Development* (Vol 23, pp. 111-137). Hillsdale, NJ: Erlbaum.
- [29]. Fischer, K.W. (1980), A theory of cognitive development: The control and construction of hierarchies of skills. *Psychological Review*, 87, 477-531.
- [30]. Fests, W.H. (1972). *The self-concept and behavior : Overview and supplement*. Los Angeles: Western Psychological Services.
- [31]. Fivush, R. (1987). Scripts and categories: Interrelationships in development. In U. Neisser (Ed.) *Concepts and conceptual development: Ecological and intellectual factors in categorization*, Cambridge, UK: Cambridge University Press.
- [32]. Gordon, E. W. (1965). Characteristics of socially disadvantaged children. *Review of Educational Research*, 35, 377-388.
- [33]. Graziano, W. G., & Waschull, S.B. (1995). Social development and self-monitoring. In N Eisenberg (Ed.), *Social development: Review of personality and social psychology* (Vol.15, pp. 233-260). London: Sage.
- [34]. Greenwald, A.G. (1980). The totalitarian ego: Fabrication and revision of personal history. *American Psychologist*, 7, 603-618.
- [35]. Guardo, C.J., & Bohan, mJ.B. (1971)0. Development of a sense of self-identity in children. *Child Development*, 42, 1909-1921.
- [36]. Hadley, A.E., E. Hair, & K. Moore, (2008). Assessing what kids think about themselves: A guide to adolescent self-concept for out-of-school time program practitioners. *Child Trends*, August.
- [37]. Harter, S. (1983b). The perceived competence scale for children. *Child Development*, 53, 87-97.
- [38]. Harter, S. (1997). The personal self in social context: Barriers to authenticity. In R. D. Ashmore & L. Jussim (Eds.), *Self and identity: Fundamental issues* (pp. 81-105). New York: Oxford University Press.
- [39]. Harter, S. (1983b). The perceived competence scale for children. *Child Development*, 53, 87-97.
- [40]. Harter, S. (1999). *The construction of the self: A developmental perspective*. New York: Guilford Press.
- [41]. Harter, S., & Renick, M. J. (1988). *Manual for the Self-Perception Profile for Learning Disabled Students*. Denver: University of Denver.
- [42]. Higgins, E. T. (1991). Development of self-regulatory and self-evaluative processes: Costs, benefits, and tradeoffs, In M.R. Gunnar & L.A. Sroufe (Eds.), *Self processes and development. The Minnesota Symposia on Child Development* (Vol. 23, pp. 125-166), Hillsdale, NJ: Erlbaum.
- [43]. Higgins, E. T., Klien, R., & Strauman, T. (1985). Self-concept discrepancy theory: A Psychological model for distinguishing among different aspects of depression and anxiety. *Social Cognition*, 3, 51-76.
- [44]. Kapp-Simon, K. (1986) Self-concept and the retarded: Research and issues. *Exceptional Children*, 39, 310-319.
- [45]. Kernberg, O. F. (1975). *Borderline conditions and pathological narcissism*. New York: Aronson.
- [46]. Kihlstrom, J.F. (1993). What does self look like? In T.K Srull & R.S. Wyer, Jr. (Eds.), *The mental representation of trait and autobiographical knowledge about the self: Advances in social cognition* (Vol. 5, pp. 79-90). Hillsdale, NJ: Erlbaum.
- [47]. Kistner, J., Haskett, M., White, K., & Robbins, F. (1987). Perceived competence and self-worth of LD and normally achieving students. *Learning Disabilities Quarterly*, 10, 37-44.
- [48]. Kohut, H. (1977). *The restoration of the self*. New York: International Universities Press.
- [49]. Lawrence, E., & Winschel, J. (1973). Self-concept and the retarded: Research and issues. *Exceptional Children*, 39, 310-319.
- [50]. Markus, H. (1980). The self in thought and memory. In D.M. Weggner & R.R. Vallacher (Eds). *The self in social psychology* (pp 42-69). New York: Oxford University Press.
- [51]. Markus, H., & Wurf, E. (1987). The dynamis self-concept: A social psychological perspective. In M.R. Rosenweig & L.W. Porter (eds). *Annual Review of*

Psychology, 38, 299-337.

[52]. MCQuire, W. (1981). The spontaneous self-concept as affected by personal distinctiveness. In A.A. Norem-Hebeisen & M. Lynch (Eds). *Self-concept* (pp 211-239). Cambridge, MA: Ballinger.

[53]. Montemayor, R., & Eisen, E.I. (1977). The development of self-conceptions from childhood to adolescence. *Developmental Psychology*, 13, 314-319.

[54]. Mullener, N., & Laird, J.D. (1971). Some developmental changes in the organization of self-evaluations. *Developmental Psychology*, 5, 233-236.

[55]. Nelson, K. (1986). *Event Knowledge: Structure and function in development*. Hillsdale, NJ: Erlbaum.

[56]. Nelson, K. (1993). Events, narratives, memory, What develops? In CA Nelson (Ed), *Memory and affect: Minnesota Symposia on Child Psychology* (Vol, 26, pp. 124). Hillsdale, NJ: Erlbaum.

[57]. Pande, N. (1994). Attitudes and beliefs about physical disability: A cross-cultural study. Paper presented at the *XII International Congress of Cross-Cultural Psychology*. Pamplona, Spain.

[58]. Pande, N., Dalai, A. (1994). A study of attitudes and beliefs about physical disability in rural communities. Paper presented at the *XII International Congress of Cross-Cultural Psychology*. Pamplona, Spain.

[59]. Pascual-Leone, J. (1988). Organismic processes for neo-Piagetian theories: A dialectical Piagetian casual account of cognitive development. In A Demetrius (Ed.), *The neo Piagetian theories of cognitive development: Toward Integration* (pp. 25-65). Amsterdam: North Holland: Elsevier.

[60]. Pipp, S. (1990). Sensorimotor and representational internal representation: working models of self, other and relationship: Mechanisms of connection and separation. In D. Cicchetti & M. Beeghly (Eds), *The self in transition: Infancy to childhood* (pp. 243- 264). Chicago: University of Chicago Press.

[61]. Renick, M.J. & Harter, S. (1989). Impact of social comparisons on the developing self-perceptions of learning disabled students. *Journal of Educational*

Psychology, 81, 631 -638.

[62]. Rogoff, B. n(1990). *Apprenticeship in thinking*. New York: Oxford University Press.

[63]. Rosenberg, M. (1979). *Conceiving the self*. Malabar, FL: Krieger.

[64]. Siegler, R.S. (1991). *Children's thinking* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

[65]. Silverman, R.G., & Zigmond, N. (1983). Self-concept in LD adolescents. *Journal of Learning Disabilities*, 16, 478-482.

[66]. Snow, K. (1990). Building memories: The ontogeny of autobiography. In D. Cicchetti & M. Beeghly (eds.), *The self in transition: Infancy to childhood* (pp. 213-242). Chicago: University of Chicago Press.

[67]. Sroufe, L.A. (1990) An organizational perspective on the self. In D. Cicchetti & M. Beeghly (eds.) *The self in transition: Infancy to childhood* (pp.281-308). Chicago: University of Chicago Press.

[68]. Steele, C.M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.) *Advances in experimental social psychology* (Vol. 21, pp. 261-302). San Diego: Academic Press.

[69]. Strang, L., Smith, M.D., & Rogers, C.M. (1978). Social comparison, multiple reference groups, and the self-concepts of academically handicapped children before and after main streaming, *Journal of Educational Psychology*, 29, 171-180.

[70]. Tam, S.F. (1991) Self-concept and correlates of Hong Kong Chinese who have physical disabilities. *Journal of the Hong Kong Association of Occupational Therapists*, 5, 4-16.

[71]. Tam, S.E. (1988). *Self-concept and employment status among physically disabled in Hong Kong* (Unpublished master's thesis). Macau: University of East Asia.

[72]. Tam, S.F. (1995b) *Exploring measuring and enhancing the self-concepts of the Hong Kong Chinese adults with physical disability* (Unpublished doctoral thesis). Hong Kong; University of Hong Kong.

[73]. Tam, S.F. (1998). Comparing the self-concepts of persons with and without physical disabilities. *Journal of Psychology*, 132, 78-87.

[74]. Tam, S.F. & Watkins, D. (1995). Towards a hierarchical model of self-concept for Hong Kong Chinese adults with physical disabilities. *International Journal of Psychology*, 30, 1-17.

[75]. Tollefson, N. (1982). Attribution patterns of learning-disabled adolescents. *Learning Disability Quarterly*, 5, 14-20.

[76]. Vygotsky, L.S. (1978). Mental development of children and the process of learning (M. Lopez Morillas, Trans.). In M. Cole, V. John-Steiner, S. Scribner, & E. Souberman (Eds.), *L.S.Vygotsky: Mind and Society*. Cambridge, MA: Harvard University Press (Original work published 1935).

[77]. Winnicott, D.W. (1965). *The maturational processes and the facilitating environment*. New York: International universities Press.

ABOUT THE AUTHOR

Dr. Rader is an Assistant Professor of Special Education in the Department of Educational Leadership and Special Education with The City College of New York. She teaches graduate level courses in differentiated instruction and literacy instruction for struggling learners. She is also the Program Head for the Special Education Graduate Program. Prior to her roles as Assistant Professor and Program Head, she served as a Consultant with a State Department of Education, a teacher for students with special needs and an Instructional Associate (Assistant Principal) of an Elementary School. Her areas of interests include universal design for learning, assistive technology, inclusion of self-determination and differentiated