

# EMOTION AND COGNITION



"It is as Dr. Stanley Greenspan (1997) suggests in his book, *The Growth of the Mind*, our educational system's failure to educate the masses of children who are cognitively capable of learning is due to reliance on a model that ignores the emotional nature of learning and the critical role emotions play in the making of mind."



"Clinical studies of infants and children conducted by neurologists, pediatricians, and psychiatrists have revealed that cognition (i.e., reason) and emotion (i.e., feelings) begin to interact from birth and continue for a lifetime. Emotions were found to be an integral and inseparable part of the learning process (Damasio, 1994; Konner, 1991). After two decades of clinical research and experience in infant and child development Greenspan (1997) concluded that 'emotions, not cognitive stimulation, serve as the mind's primary architect" (p. 1) and "babies' emotional exchanges with their caregivers, rather than their ability to fit pegs into holes or find beads under cups, should become the primary measuring rod of developmental and intellectual competence'" (p. 68).







"Unit I, located in the brain stem, is responsible for regulating tone or waking. The most important part of the first functional unit is the reticular activating system (RAS), a small structure located near the top of the brain stem. The RAS serves as a trap door or gatekeeper, allowing stimuli to enter the brain and be relayed through the limbic system to the appropriate cortical areas. This interaction helps with attention, thinking, balance, and coordinated movement. As children grow, they learn to send messages from the cortex to focus their attention. In this way, the RAS plays an integral role in directing consciousness and attention. On the other hand, without the reticular formation's alerting signals, the brain grows sleepy and disengages." (pp. 70-71)



In short, the RAS is what helps you pay attention or not, letting stimuli in or not. It seems to be governed by interest, personal meaning, and attention-grabbing emotion.

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# Literacy, Emotions, and the Brain

#### An invited contribution

## **Gerald Coles**

*Note:* This posting is adapted from material in the author's *Reading Lessons: The Debate over Literacy.* New York: Hill & Wang, 1998. After reading these comments, please visit the discussion forum to view readers' responses.

A recent International Reading Association survey asked leaders in the profession, "What's hot?" and "What's not?" in literacy research and practice (Cassidy & Wenrich, 1998/1999). The majority of the 27 topics identified as receiving "current and positive attention" emphasized cognitive, instructional, and programmatic matters, including phonemic awareness, phonics, constructivism ("the active construction of knowledge when engaged in meaningful tasks"), spelling, balanced reading instruction, direct instruction, skills instruction, volunteer tutoring, Reading Recovery, and standards for language arts.

These are certainly important topics all, but imagine them combined as the chief characteristics of literacy education. The result would be tepid classrooms in which, through the use of varying mixtures of skills, strategies, and materials, students were taught to read using one mental process or another.

"Passion is an art form" sang the musical group The Horseflies, but judging from the survey, passion as part of the art of pedagogy is not a hot topic. That is, the topics named do not reflect sizable professional concern with whether literacy learning itself is flat or hot -- whether emotions are linked with cognition, whether there is a passion and excitement about learning, emotionally charged stories are read and discussed, writing is means for expressing deep feelings, and children passionately aspire to apply their literacy in the world around them. Nor does the "hot list" indicate a concern with the kind of emotional make-up literacy education helps create. What do students feel strongly about? What do they abhor, love, desire? Do they have passions? If so, what are they? Are they becoming literate but aliterate -- that is, are they becoming readers with no desire to read?

A single emotion-related entry among the hot topics was "motivation," which concerns emotional states such as stimulation, intrinsic motivation, enjoyment, and enthusiasm and how they interact with and affect cognitive strategies and learning outcomes. However, the appearance of motivation was tempered by the transfer of reader engagement, whole language, and process writing -- approaches concerned with children's emotional engagement in literacy education -- from the "What's hot" list of 1997 to the "What's not" column in 1998.

Despite the results of this survey, we know that many classrooms are "hot," and there are many educators and researchers whose formulations of learning and learning outcomes include attention to learners' emotions. Nevertheless, the survey indicates that the emotional side of literacy learning is not paramount in research and practice. This inattention is not simply neglect. Many educators believe that children's emotional states should remain at most a secondary issue and that more attention to emotions would yield to neo-romantic educational notions, a soft, touchy-feely pedagogy weak on academics but strong on feeling good. Instead, say these educators, solid, basic learning should come first; if children learn, they will feel good, enjoy learning, be enthusiastic, and desire to learn more.

This essay proposes that, contrary to the topics now receiving most attention and to the no-nonsense view that separates academics from feelings, reading educators, who want to craft an education that can successfully serve all children, must make the role of emotions a primary concern. Reaching a full understanding of thinking and

learning requires attention to the "continuous and interwoven fugue" (<u>Lewis, Sullivan, & Michalson, 1984</u>) of cognition and emotions. Indeed, not making emotions a primary concern leads to a misunderstanding of children's thinking and neglects countless influences that contribute to literacy outcomes.

The essay is divided into the following sections:

- The Study of Cognition and Emotions in Psychology and Education
- Studies on Emotions in Learning
- Critique of a Concern for Emotions
- The Neural Connections between Emotions and Cognition
- Emotions as Outcomes of Literacy Learning
- Conclusion
- References

#### The Study of Cognition and Emotions in Psychology and Education

In the early part of this century, Soviet psychologist <u>Lev Vygotsky</u> observed that the study of psychology had been damaged by the separation of the intellectual from the motivational and emotional (or "affective") aspects of thinking. The terms *emotions* and *affect* refer to states such as happiness, shame, fear, disgust, annoyance, sadness, anger, equanimity, anxiety, depression, surprise, and love. Thinking, said Vygotsky, was transformed into an "autonomous stream" separated "from the full vitality of life, from the motives, interests, and inclinations of the thinking individual." By not identifying how emotions contribute to thinking, our ability to provide causal explanations of thinking was impaired. <u>Vygotsky (1987)</u> also emphasized the need to take into account the contexts in which this unity is created: "Every idea contains some remnant of the individual's affective relationship to that aspect of reality which it represents" (p. 50).

Until recently, psychological research on emotions was sporadic. <u>Behaviorism</u>, which dominated psychology for many years, shunned "internal states"; <u>cognitive psychology</u>, its replacement, put new -- but insufficient -- emphasis on internal states (<u>Davidson & Cacioppo, 1992</u>, p. 21). As neurobiologist <u>Joseph LeDoux (1996)</u> remarked:

Cognitive science emerged recently, around the middle of this century, and is often described as the "new science of the mind." However, in fact, cognitive science is really a science of only a part of the mind, the part having to do with thinking, reasoning, and intellect. It leaves emotions out. And minds without emotions are not really minds at all. They are souls on ice -- cold, lifeless creatures devoid of any desires, fear, sorrow, pains, and pleasures (p. 25).

Differing from this orientation is clinical psychology, in which emotions -- including depression, anxiety, mania, panic, psychosis, anger, aggression -- are stock-in-trade. In this respect, clinical and research psychology have had opposite emphases: aberrant emotions for one, and behavior or cognition with little concern for emotions for the other.

The field of education has had a similar division. "Emotionally disturbed" is a long-standing description and classification in "special" education for millions of children said to have aberrant emotions that cause unruly, disruptive classroom behavior and impair learning. Attention deficit hyperactivity disorder (ADHD) has in recent years become a major special education category described as encompassing severe cognitive and emotional problems of inattention, hyperactivity, and impulsivity that interfere with learning (American Psychiatric Association, 1994, pp. 78-85). In contrast, in "regular" schooling, "nonaberrant" emotions receive little professional attention. What James Beane (1990) wrote in this regard about schooling in general has application to reading education:

Schools continue to operate on the theory that "cognitive" and "academic" are synonymous and both are apart from [emotions]. While goal statements may include concern for such concepts as self-esteem, social relations, and cultural awareness, the fact remains that curriculum plans are nearly always based on the learning of skills and content within various disciplines of knowledge (pp. 42, 138).

Although there have been efforts among reading professionals to address the unity of cognition and emotions, the field as a whole has unfortunately tended to disregard it. Whole language attempted to reverse this neglect, but in recent years the narrow terms imposed by the dominant literacy debate have reinforced both a conceptual and practical division. Irene Athey's (1985) observation of more than a decade ago seems even truer today: While diagrams depicting models of the reading process include "boxes" identifying affective factors, beyond this kind of acknowledgment they "receive little additional elaboration or explication" (p. 527).

Rather than pursuing an understanding of literacy based on the assumption that cognition and learning are always intertwined with, and never independent of, emotions, conceptions have almost exclusively been formulated in terms of "cognition" -- that is, literacy as a process of images, concepts, and mental operations. Absent has been a distinction between models of "cognition" and the actual functioning of cognition: although models can isolate cognition as a means for understanding facets of thinking, in "real life," cognition is never an isolated mental process.

There is irony in the criticism that reading educators have given too little attention to children's emotions when one considers the inveterate efforts of many to control those emotions. The history of schooling reveals that indifference to promoting certain emotional states was not a matter of oversight but part of a conscious conviction that teaching children to forego happiness for achievement was best for their learning and character. Following his survey of contemporary schools, educator <u>John Goodlad</u> remarked, "Our impression is that classes generally tend not to be strongly positive or strongly negative places. Enthusiasm and joy and anger are kept under control" (1984, p. 124). In this formulation, classrooms are not emotionless; rather, a stolid emotional state becomes an indispensable part of classroom management.

The issue, then, is not whether emotions should be part of learning to read -- they are always part of it. Instead, reading educators need to give thorough and explicit attention to that fugue of cognition and emotions in the process of literacy development.

#### **Studies on Emotions in Learning**

Some connections between learning and emotions have been well documented: for example, poor learning can produce negative emotions; negative emotions can impair learning; and positive emotions can contribute to learning achievement and vice versa. Induced negative emotions have been shown to hamper performance on cognitive tasks, whereas positive emotions have an opposite effect (<u>Izard, 1984</u>). Similarly, one study found that inducing a sad mood in very young children increased the time it took them to learn to respond to a task, and also increased their number of errors; converse results were achieved by inducing happiness (<u>Masters, Barden, & Ford, 1979</u>).

Studies of the effect of emotions on language, memory, and story learning point to comparable effects. Fifth graders recalled more adjectives when they were in a positive rather than sad mood (Nasby & Yando, 1982). A positive mood enhanced children's memory of televised story narratives and information about story characters (Potts et al., 1986). Numerous studies have demonstrated a connection between anxiety and academic performance: the more anxious a person is, the poorer his or her academic performance (Seipp, 1991).

The influence of emotions is the same for nonverbal learning. Preschool children in a positive mood mastered a shape discrimination task more quickly and with fewer errors than did children in an induced negative mood.

Youngsters identified as at risk for school failure were found to complete math problems significantly more accurately under induced positive-mood conditions (<u>Tanis & Bryan, 1991</u>).

Students' perceptions of a teacher's emotions are also important. Weiner and Graham (1984) asked children of varying ages to consider a scenario in which a student failed a test and the teacher either became angry, felt pity, was surprised, or felt guilty. For each teacher response, students were asked to reply to the question, "Why did the teacher think that the student failed?" Answers confirmed the researchers' expectations: "Each affect was associated with a particular causal attribution." According to most children, a teacher's expression of anger or surprise implied that the student had "not tried sufficiently hard." If the teacher felt guilt, the students inferred that this meant the teacher was to blame for the student's failure. Inferences interpreted as expressions of student deficiency were made by children as young as five years old. By nine, inferences of the student's lack of ability were even stronger.

Lack of confidence is often joined with feelings of being incapable of learning. These impulses are common in students who have not learned to read, so that, if left to draw solely upon their own motivation, they are unable to sustain a commitment to learning. For these students, a transformation of emotions and self-perception is necessary for literacy achievement. In *Manchild in the Promised Land*, <u>Claude Brown (1965)</u> tells of his own experience and feelings as an unsuccessful student:

I knew I didn't want to go to school, because I would have been too dumb and way behind everybody. I hadn't been to school in so long; and when I was really in school, I played hooky all the time and didn't learn anything. I couldn't be going to anybody's school as dumb as I was (p. 174).

Such insecurities and feelings of mental deficiency increase when literacy failure continues into adulthood. For example, a volunteer tutor in the Cuban Literacy Campaign of 1961, speaking with <u>Jonathan Kozol (1978)</u>, recalled her instruction of a 35-year-old Nenno and his continued struggle with illiteracy and feelings of inferiority:

He said to me, "I am not intelligent. I will give you a prize if you can teach me to read." During the months in which we worked together, it was as if he had to wrestle with his inner self, in order to turn himself into another human being (p. 36).

<u>Vygotsky (1978, pp. 85-86)</u> used the term *zone of proximal development* to differentiate between a person's "actual developmental level as determined by independent problem solving and his or her level of potential development as determined through problem solving [with guidance]." This difference is the "zone." In a student's transformations, the zone of proximal development has usually referred to changes made in cognitive and academic achievement, but the term has a potential additional meaning for emotional development in literacy learning attainable through guidance and support. Fear of failure may be changed to feelings of self-confidence; motivation may change from low to high; intellectual insecurity may become confidence in one's intelligence. These transformations can occur through a teacher's "scaffolding" and guidance in the formation of new emotional states a learner can achieve and sustain by him- or herself.

#### **Critique of a Concern for Emotions**

One attack on whole language and other "touchy-feely, privacy-invading mush" accompanied by a call for an emphasis on phonics -- "a method of reading instruction that had 70 years of experimental research behind it and which was successful in producing a literate population" -- concluded, "The bottom line is that today, education is not about literacy. It is not about proficiency at anything.... It's about mental health, stupid!" (Eakman, 1993, p. 40). In a chapter entitled "Bad Ideas Whose Time Has Come," Chester Finn (1991), who served in the U.S. Department of Education during the Reagan administration, snickered at the National Education Association's statement that schools "must structure esteem-building into the curriculum." He complained that he could rarely "pick up an education journal without encountering several articles" on self-esteem. Professional meetings were

no better: "Rooms full of people...[at] any of the zillion professional conferences each year" solemnly discuss "how best to foster self-esteem in children" (p. 215).

Finn maintains that empirical evidence indicates the correlation between self-esteem and academic achievement is low or negative. Moreover, even where a positive correlation exists, he says, one cannot identify a causal link: does heightened self-esteem come from academic achievement or vice versa? Possibly, he speculates, the two "vary together" or are derived from other influences, "such as innate ability, social class, and prior accomplishment" (1991, p. 216). Regardless, Finn believes that growth of emotions such as self-confidence and self-esteem will come through academic accomplishment. Teachers should concentrate on teaching academic content and abilities; students' good feelings will follow when they learn what they are supposed to learn.

This denunciation misses the mark because Finn misconstrues the connection between self-esteem, other emotional states, and learning. Certainly children's good feelings about themselves will not on their own cause successful learning. Moreover, the history of education shows that some children learn the prescribed curriculum even if they are passive, indifferent, withdrawn, hostile, angry, insecure, or blindly obedient. Some also do considerably learning in the face of low self-esteem and an array of other insecurities. But the connection and solution is not, as Finn proposes, a one-two step of cognitive accomplishment followed by emotional gain; nor do the two "vary together" because of "innate ability." Research reveals the matter is quite different, suggesting that cognition, emotions, and learning do not "co-vary" but interact.

Surely children and adults must learn to strike a balance between doing tasks that generate immediate good feelings and those that must be done even if they do not. Any undertaking, whether fixing a car or writing a book, involves amounts of arduous work not instantly fulfilling and festive. Recognizing this does not mean that learning should not be as emotionally positive as it can be, or, more to the point, that educators should concentrate on learning and be indifferent to children's emotional well-being. It is empirically incorrect and pedagogically callous to argue that children's feelings about themselves when they are engaged in learning to read and write should not be a primary concern of reading educators.

#### The Neural Connections between Emotions and Cognition

We have been looking at the learning a person does as a whole individual, or, as it often is called, at the "behavioral" level. And even here there is evidence of a connection between emotion and cognition. But a fuller understanding of the relationships between emotion and cognition, and the influence of these relationships on learning, requires a look at the neural level as well -- that is, at the neural networks that integrate emotions and cognition.

Based on neurological findings, strong arguments have been made against the conventional separation of cognition and emotions. Neurologist <u>Antonio Damasio (1994)</u> rejects this distinction by arguing that there are no "higher" and "lower" brain centers:

[T]he apparatus of rationality, traditionally presumed to be neocortical, does not seem to work without that of biological regulation, traditionally presumed to be subcortical. Rationality results from the combined activity of the neocortex and the older brain core. In short, there appears to be a collection of systems in the human brain consistently dedicated to the goal-oriented thinking process we call reasoning, and to the response selection we call decision making, with a special emphasis on the personal and social domain. This same collection of systems is also involved in emotion and feeling, and is partly dedicated to processing body signals (p. xiii).

Damasio maintains that neural substrates for cognitive responses associated with those for emotions are acquired connections that emerge from the unique experience of an individual. With the repetition of subsequent experiences, the emotional responses -- often nonconscious, automatic, and involuntary -- are activated in various

parts of the brain. However, it is actually a full-body activation of the endocrine systems, the heart, blood pressure, and other regulators that affect cognition and emotion. In other words, it is not the brain but the totality of the person that is the unified whole of thinking.

Damasio's arguments lend further support in favor of teachers seeing thinking and emotions as integrative and interactive processes, and of addressing multiple goals of cognition and emotion in every facet of learning. All learning activity must be pursued, modified, or eliminated according to the many influences that shape thinking. Damasio's interpretation helps explain some of the neural underpinnings of a student's transformations, progress, or failures.

Another leading investigator in this field is <u>Joseph E. LeDoux</u>, who has identified brain pathways that carry sensory signals to sites of emotion and of cognition. More specifically, he has found that the thalamus, an area that relays sensory information, conveys sensory stimuli to the <u>amygdala</u> (a site of basic emotional memory) and to the cortex, where cognition occurs. From the cortex the stimuli go on to the hippocampus, a site involved in memory and linked to the amygdala. This means there is more than one route to emotional learning, and an emotional response can precede a cognitive perception and response:

Placing a basic emotional memory process in the amygdalic pathway yields obvious benefits. The amygdala is a critical site of learning because of its central location between input and output stations. Each route that leads to the amygdala -- sensory thalamus, sensory cortex, and hippocampus -- delivers unique information to the organ.... The thalamus activates the amygdala at about the same time as it activates the cortex. The arrangement may enable emotional responses to begin in the amygdala before we completely recognize what it is we are reacting to or what we are feeling (LeDoux, 1994, pp. 55-56).

Because the neural "emotional system can act independently of the neocortex, some emotional reactions and emotional memories can be formed without any conscious, cognitive participation at all" (LeDoux, quoted in Goleman, 1995, p. 18).

As <u>LeDoux (1994)</u> explains, we form emotional memories from emotional events, and the emotional memory can be elicited through an event similar to the initial event. Emotional memory is not "declarative" memory -- that is memory of explicit, consciously accessible information. Rather, it most likely operates independently of our conscious awareness. Nonetheless, and most important, "emotional and declarative memories are stored and retrieved in parallel, and their activities are joined seamlessly in our conscious experience." Thus, emotions "exert a powerful influence on declarative memory and other thought processes." The amygdala "plays an essential part in modulating the storage and strength of memories" (p. 5).

The implications of these findings for "memory" problems and for education are clear -- that is, we begin to see how, at the neural level, an emotional response can enhance or impair cognition and learning. For example, input from the thalamus to the amygdala, based on prior positive or negative experiences, may impede or foster declarative memory, the kind of memory required for retrieving and consciously using information for decoding and comprehending.

Emotions also affect working memory, the active memory used for a current task (<u>LeDoux, 1996</u>). For example, negative emotions (conveyed from the amygdala and parts of the <u>limbic system</u>) can impair the activity of the prefrontal cortex, an area of the brain involved in working memory. "That is why when we are emotionally upset we say we 'just can't think straight' -- and why continual emotional distress can create deficits in a child's intellectual abilities, crippling the capacity to learn" (<u>Goleman, 1995</u>, p. 27). Of course, it follows that positive emotion can facilitate working memory.

These neural relationships are important for understanding the contribution made by emotions in the formation of responses to situations. LeDoux's work suggests that neural pathways are set so that a situation may evoke an

emotional response that may be helpful, or that a rapid negative emotional response can precede cortical cognition and impair learning, memory, and thinking.

## **Emotions as Outcomes of Literacy Learning**

Emotions are not only intertwined in learning to read, they are also consequences of that learning. As students learn, that learning helps construct what they think and feel about themselves and the world. Therefore, educators need to address such questions as "What should students feel strongly about, what should they love and hate, with what should they empathize?" Beane (1990) remarked that "education must be affective and cannot be otherwise. Affect enters the curriculum in any experience that influences (or attempts to influence) how young people see themselves, the world around them, and their place in that world" (p. 19). A central way in which emotions enter the curriculum with potentially enduring consequences is through the stories that are read.

For a considerable portion of the history of reading education in the United States, educators were quite explicit about the thinking and feeling they wanted to engender. The *New England Primer*, a textbook from the colonial period, aimed at changing children from unregenerate "young vipers" into God-fearing Christians by teaching them to read with catechisms, the Lord's Prayer, and the Ten Commandments (<u>Smith, 1965</u>, p. 20). Content in reading textbooks in the 19th century was more moral than strictly religious, but it continued to be directed toward character formation. Noah Webster's *American Spelling Book*, which sold over 24 million copies between 1790 and the mid-1800s, included the following story:

An old man finds a "rude" boy stealing his apples and asks him to come down from the tree. When the young "sauce-box" persistently refuses, the man is forced to pelt him with stones. Moral: "If good words and gentle means will not reclaim the wicked, they must be dealt with in a more severe manner."

With the rise of industrialism and the accompanying economic and political turmoil, schools were used to instill proper socialization, morals, emotions, and habits in poor and working-class children. By teaching them respect for the law, the church, and the republic, children would become "more docile, more tractable" and, would grow to be adults "less given to social discord, disruption and disobedience" (Nasaw, 1979, p. 40). Indeed, in the words of one author of a reading text, "The great end of education, that of forming the younger and tender minds to virtue and usefulness, is promoted by no branch of science more effectually than by learning to read" (Smith, 1965, p. 40). For mid-19th-century school reformers, "the cultivation and the transmission of cognitive skills and intellectual abilities as ends in themselves had far less importance...than the problems [of moral development]" (Katz, 1987, pp. 22-23).

In the middle of this century, we experienced the delightful lives of George and Mary and Dick and Jane. In today's reading textbooks, "ethnic and socioeconomic diversity has appeared, and Mother is out of her aprons and Father has taken off his dress shirt and tie." Nonetheless, as a review of these textbooks concludes, despite efforts by publishers to make the stories more interesting and relevant, they remain, on the whole, lackluster (Goodman, Shannon, Freeman, & Murphy, 1988, p. 59). Many teachers have attempted to counter this blandness by adding children's books to instruction, with whole language teachers relying entirely on them. Children's books, however, are not themselves without problematic moral, emotional meanings.

<u>Herbert Kohl's (1995)</u> analysis of *Babar* provides an example. This "classic" has touched countless children, and Kohl himself writes that he "loved the book, identified with Babar, and found an abiding affectionate place for him in my heart." When Kohl revisited the book as an adult, however, he saw that woven into the fabric of this story about an elephant who is befriended by a "Rich Lady" after his mother is killed by a hunter, are strong portrayals of sexism, racism, classism, and colonialism.

Trying to recall his childhood response to the story, Kohl suggests that he "got the impression that people who served the rich weren't as good as the rich." He goes on to observe that Babar, made powerless by the Rich Lady's

money, "does what he is told, is as passive as a paper doll and as uncomplaining." Eventually Babar returns to his jungle home with all the "accoutrements of civilization and access to the Rich Lady's purse." He finds that there has been "a crisis in the elephant patriarchy"--the old king has died. The other elephants soon choose Babar as their kind, noting admiringly that he has "learned so much living among men." Kohl observes that what he "learned" was how to buy things.

Kohl proposes that the content of *Babar* is sufficiently troublesome to prompt adults to consider whether children should read it:

The use of symbols and possessions to legitimize authority is dangerous and antidemocratic. It suggests to children that blind acceptance of authority is good behavior. The question of whether one encourages a child to accept or question authority is a major one in child rearing. [The book] makes a thoroughly undemocratic way of governance seem natural and unquestioned (p. 2).

Mem Fox, an Australian teacher and children's book writer, noted, "There's no such thing as a politically innocent picture book." An example she offers is her own *Wilfrid Gordon McDonald Partidge*, which, she says, "reinforces the Dan Quayle/George Bush notion that real families have two parents, not one parent, three parents, or four parents, all of which are becoming increasingly common family configurations. The political message is a conservative one." Still, she wryly adds, the book does "hint that the world, as it is, need not be so": she allows a white "masculine, sports-loving cricketer" to cry (1993, p. 656).

The literacy debate must be expanded to include specific questions on what children need to think and feel about, what they emotionally need to acquire or reject as they learn to read and write. A first step in this process is to assess the ideas and feelings available and unavailable in literacy education. Second, the array of ideas that can, in theory, be included in the classroom should be studied. Third should be an assessment of the way in which these ideas and feelings organize thinking. Fourth should be an appraisal of how teachers and students who choose to include alternative ideas and feelings in literacy education might find themselves in conflict with those who serve as the guardians of acceptable ideas and feelings.

#### Conclusion

The survey that introduced this essay is undoubtedly an accurate depiction of what's hot in literacy research and education. The results are also, I believe, a measure of much of what's wrong. We are, unfortunately, moving farther away from a concern with emotions in literacy education. We are focusing on literacy learning as if children's minds were information-processing mechanisms. Minimizing concern for emotions helps literacy education and research evade the fuller issues of how children learn and what needs to be done to ensure that they all do so.

Also evaded is the issue of the meaning of "successful" learning. At the beginning of the decade, two U.S.-wide surveys painted a portrait of 18- to 29-year-olds as a generation that "knows less, cares less, votes less," a generation able to read but that reads less often to get news about public affairs than did previous generations (Oreskes, 1990). Although one should not identify the cause of this aliterate, youthful indifference as reading education, I believe reading education contributes to it by not making "hot" education an essential part of its concerns.

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#### **Transcript of the Discussion Forum**

*Editors' Note:* When this article was posted in *Reading Online* in March 1999, readers were invited to comment on it through a bulletin board feature that was discontinued when the journal was redesigned in July 2000. Following are the comments posted to that bulletin board.

Readers who would like the opportunity to comment on this or other articles in the journal are invited to post messages through <u>ROL Communities</u>.