

2004

Sometimes, Practice Makes Imperfect: Overcoming the Automaticity of Challenging Behavior by Linking Intervention to Thoughts, Feelings, and Action

Robert A. Gable
Old Dominion University

Richard Van Acker

Follow this and additional works at: https://digitalcommons.odu.edu/cdse_pubs

 Part of the [Educational Assessment, Evaluation, and Research Commons](#), [Educational Psychology Commons](#), and the [Special Education and Teaching Commons](#)

Repository Citation

Gable, Robert A. and Van Acker, Richard, "Sometimes, Practice Makes Imperfect: Overcoming the Automaticity of Challenging Behavior by Linking Intervention to Thoughts, Feelings, and Action" (2004). *Communication Disorders & Special Education Faculty Publications*. 38.

https://digitalcommons.odu.edu/cdse_pubs/38

Original Publication Citation

Gable, R. A., & Van Acker, R. (2004). Sometimes, practice makes imperfect: Overcoming the automaticity of challenging behavior by linking intervention to thoughts, feelings, and actions. *Education & Treatment of Children (ETC)*, 27(4), 476-489.

Sometimes, Practice Makes Imperfect: Overcoming the Automaticity of Challenging Behavior by Linking Intervention to Thoughts, Feelings, and Actions

Robert A. Gable
Old Dominion University
Richard Van Acker
University of Illinois at Chicago

Abstract

In schools throughout the country, education personnel express concern over the aggressive and antisocial behavior of children and youth. The frequency and severity of these acts compel us to find more effective strategies for decreasing and eliminating these behaviors. In this article, we argue for a broader explanation of the nature and treatment of aggressive behavior, especially when it rises to what is essentially an automotive response level. We contend that both assessment and intervention must account for internal and external influences on behavior and that treatment should encompass cognitive, affective, and behavioral dimensions of the problem. Finally, we discuss the advantages and limitations of a multifaceted approach to dealing with antisocial and aggressive behavior of children and youth.



Even a cursory review of the literature of psychology and education reveals that affect and cognition are integral to much of what has been written about human behavior. Both of these traits are the subject of a substantial amount of discussion on both normal and abnormal behavior. That same body of literature suggests that there is disagreement among professionals when it comes to the role of cognition (thoughts), affect (feelings), and actions (behavior). Disagreement centers largely on the usefulness of addressing internal versus external dimensions of behavior. However, the 1997 Individuals with Disabilities Education Act and the introduction of functional behavioral assessment/ positive behavior supports have sparked renewed interest in affect and cognition (e.g., Nichols, 2001). Today, both

Please address all correspondence to: Robert A. Gable, Ph.D., Professor of Special Education, Child Study Center, Old Dominion University, Norfolk VA 23529; rgable@odu.edu.

researchers and practitioners are looking closely at these traits to find a more complete explanation of challenging behavior.

In what follows, we look briefly at the early literature on affect and cognition to better understand the challenging behavior children and youth. We suggest that across time student behavior problems can become well established—sometimes rising to what essentially is an automatic response level. We suggest that both external and internal events influence behavior, acknowledge the role of direct observation, but also stress that student interviews can reveal important information on non-observable aspects of behavior. Finally, we discuss a combination of overlapping cognitive, affective, and behavioral treatment approaches to address serious and persistent behavior problems of students with emotional/behavioral disorders (E/BD).

Affect and Cognition in the Study of Student Behavior

The majority of children's behavior is learned, is shaped by past-to-present events, and is influenced by the context(s) in which the behavior occurs (Gable et al., in press). Both private (internal) and public (external) events can exert influence over behavior. Some authorities assert that our beliefs stem from those events and that they not only affect how we perceive, but also how we respond to various situations. Not surprisingly, researchers have long been intrigued with internal states and the role they play in shaping behavior. For example, the pioneering research of Watson and Rayner (1920) dealt with various aspects of conditioned emotional responses such as fears and phobias. Miller and Dollard (1941) studied the social conditions under which behavior is learned, while Bandura and Walters (1963) investigated the role of modeling and reinforcement on learning and behavior. At the same time, Ellis (1962) looked at the relationship between environmental events, thoughts, and emotional/behavioral consequences. Ellis sought to make the case those attitudes, thoughts, and expectations influence our interpretation of events and that it is our interpretation—as much as the event itself that affects behavior. In examining the sources of abnormal behavior, Ellis focused on irrational beliefs and treatment that emphasized the cognitive restructuring of belief systems.

More recently, Bandura (1986) posited that an individual's behavior and the context in which it occurs have a reciprocal effect on each other and that behavior can influence cognition and vice versa. Bandura further argued that treatment should target both cognition and behavior, along with important variables within the physical environment. Finally, Gardner and Sovner (1994) expanded the scope of this discussion by stressing the effect of biomedical factors on behavior (e.g., neurological, sensory, or chemical conditions). A common feature of the work of these authorities is the legitimacy they attach to affect, cognition, and behavior, as well as the setting(s) in which behavior occurs. Viewed together, this body of literature may shed new light on ways to treat the antisocial and aggressive

behavior of children and youth with emotional/behavioral disorders (E/BD).

The Challenge of Behavior Problems in Schools

Nationwide, education officials, parents, and the public-at-large express concern over antisocial and aggressive behavior in schools. While available evidence indicates a leveling-off in the number of violent incidents, the prevailing sentiment is that these problems are common occurrences (Van Acker, 2003). Furthermore, recent legislation, including the No Child Left Behind Act and the Individuals with Disabilities Education Act, has put tremendous pressure on school personnel to increase student academic performance. For these reasons, the temptation exists to point an accusatory finger at "out-of-control" students and to insist that they have no business being in public school. However, we believe there is a more rational and effective course of action in response to students challenging behavior.

Ellis (1962) maintained that attitudes, beliefs, and expectations color the interpretation of events that affect behavior. Research conducted by Bandura and his colleagues underscored the significance of the interplay between internal events and external events (Bandura, 1986). Similarly, Nichols (2001) argued that thoughts and feelings serve as antecedents to appropriate and inappropriate behavior. In applying that thinking to problem behavior in schools, classroom antecedents that include irrelevant instruction, repeated teacher nags/put downs, or frustration over a complicated assignment can cause students to act out to escape from an aversive situation (e.g., Shores, Gunter, Denny, & Jack, 1993). Furthermore, cognitive distortions/ misperceptions regarding the difficulty of a task may trigger a negative response (e.g., Cole, Davenport, Bambara, & Ager, 1997; DePaepe, Shores, Jack, & Denny, 1996; Dunlap et al., 1993). Several recent studies suggest that student misperceptions may be responsible for a disparate number of inappropriate/unacceptable responses—ranging from poor problem-solving behavior to physical aggression. For example, Leaf, Kuperschmidt, and Power (2003) found that some girls employ relational aggression (e.g., socially ostracize others, spread false rumors about others) and, in turn, interpret others' negative behavior as intentional. These same youngsters place far less trust in peers than do girls who do not typically engage in relational aggression. Likewise, aggressive boys often mistakenly attribute hostile intent to the socially benign initiations of their peers (Lochman & Dodge, 1998). Fortunately, a number of school personnel recognize that student perceptions influence overt behavioral responses. Logic dictates that students themselves represent a potentially useful source of information regarding the motivation behind their behavior—especially when the student's reality does not match the adults' interpretation of events. Simply put, knowledge of both internal and external aspects of behavior can increase our ability to deal successfully with future events.

Our ability to anticipate the future occurrence of a behavior depends on a database that is relatively stable across time (Derby et al., 1992). However, in many instances, the reason(s) why a student acts out or is aggressive is not readily apparent; behavior usually is the product of a complex and subtle chain of events across time. Absent a clearly identifiable pattern of behavior, along with knowledge of its environmental context(s), school personnel face a real dilemma. Federal legislation stipulates that under certain conditions, school-based teams must pinpoint the source(s) of the behavior and develop a treatment plan aligned with the motivation behind it. Problems arise when school personnel attempt to identify thoughts or feelings that either trigger or reinforce an observable behavior. Fortunately, some students do exhibit early warning signs associated with subsequent behavior problem, signs that are manifest in ways that we can quantify (i.e., emotional, behavioral, and/or physiological qualities) (Gardner & Sovner, 1994). Unfortunately, some information that is essential to intervention planning cannot be obtained through direct observation.

Overlap of external and internal influences on behavior. Because of their learning history, many students who exhibit antisocial or aggressive behavior constantly are on guard against provocative acts and are predisposed to respond negatively to benevolent actions of others (Lochman & Dodge, 1998). The situation is exacerbated by the fact these students are prone to over-generalize or "jump to conclusions" regarding the intentionality of the behavior of others—a phenomenon known as hostile attribution biases (Feindler, 1991). Within this framework authorities support looking carefully at internal forces that may affect external behavior (Nichols, 2001). An assessment of internal influences on student behavior may be especially useful in identifying the function(s) of low frequency/high intensity or other "hard to catch" behavior (e.g., stealing, violent acts, weapons in school). One way to learn about events that, from the student's perspective, serve as antecedents of antisocial behavior, is to interview the student (Flannery et al., 1995; Nichols, 2001).

Use of interviews to identify internal influences on behavior. A modest amount of empirical research suggests that functional interviews are a useful tool to pinpointing possible source(s) of student behavior problems. Among the more popular procedures is an interview format developed by O'Neill, Horner, Albin, Story, Sprague, and Norton

(1997). Chandler and Dahlquist (2002), Gable, Quinn, Rutherford, Howell, Hoffman, and Butler (in press), Vaughn, Hales, Bush, and Fox (1998)—among others, have produced interview protocols as well. Whereas adults serve as the primary source of information when conducting these interviews, several researchers have developed protocols that are applicable to students. Kern, Dunlap, Clarke, and Childs (1994) devised the Student-Assisted Functional Interview Form, while Reed, Thomas, Sprague, and Horner (1997) are responsible for the Student-Centered Functional

Interview Form. The underlying assumption of both instruments is that overt student behavior is mediated by overlapping affective and cognitive events.

The content and structure of student interviews differ somewhat, but the intent is essentially the same, to focus on the target behavior(s), discover what triggers and reinforces it, and the conditions under which the behavior occurs (e.g., Nichols, 2001; Smith, 2002). In conducting a student interview, Nichols (2001) advocates first posing questions about the behavior, then shifting to a student's feelings about the behavior, and finally, concentrating on the thoughts behind the feelings that triggered the response. Although there are too few studies to draw any definitive conclusions, the student-focused interview has potential to yield useful information as part of the functional behavioral assessment process. According to Reed et al. (1997), while students report slightly more challenging behavior than adults, they are able to accurately identify the problem, its antecedents (fast triggers), as well as the consequences that likely maintain the behavior. Conversely, they are less capable of distinguishing setting events (slow triggers). Reed and her colleagues reported that overall agreement between student responses and those elicited from adults was 85%.

Limitations of student interviews. Despite the positive aspects of student interviews, their usefulness is mitigated somewhat by uncertainty regarding their psychometric properties, the inherent subjectivity of the question/answer process, exactitude of interpretation and recording of student responses, and the fact that some students give inconsistent responses (e.g., Fox & Gable, in press; Kern et al., 1994). Indeed, there have been few studies on the reliability of student responses across time or their usefulness in identifying motive(s) behind low incidence behavior (Fox & Gable, in press). A student's chronological age, ability to recall facts, expressive language skills, and/or willingness to divulge essential information can affect the worth of self-reports. Likewise, there is reason to doubt the ability of persons conducting the interview to unerringly capture the most salient features of student responses (e.g., Kauffman, 2001). One way to compensate for these deficiencies is to look for corroborating evidence by means of an archival review of the records. It is also useful to conduct interviews with classmates, teachers, and/or parents and, obviously whenever possible, to collect data through direct observation. In the brief vignette that follows, we highlight the often-complex nature of challenging behavior and the fact that its function(s) may not always be directly observable.

The class was engaged in a group-individual cooperative learning activity. As the various team members worked on their respective assignments, Juan rose from his seat and slowly walked across the room. As Juan drew near, Larry stood up and hit him with a right hand punch, sending Juan to the floor.

Our initial reaction might be to assume that Larry is a violent kid who must be punished for his aggression (i.e., suspension or expulsion). While not condoning Larry's behavior, a more incisive evaluation may produce a

more complete explanation. For example, as his classmate walked toward him: 1) Larry may have drawn on past experience with similar encounters and misread Juan's intent (cognition misperception); 2) Larry may not have known another way to respond (skill deficit); or, 3) Larry may have known how to respond more appropriately, but could not because of strong, conflicting emotions (self-control performance deficit). Further compounding an already complicated situation, many youngsters believe that aggression is a legitimate problem-solving strategy (e.g., Feindler, 1991; Van Acker, 2003).

Aggressive behavior is a well-established norm among some peer groups. Most students will initiate behavior that strikes a balance between the amount of effort it requires and the probability of its reinforcement. The behavior that has the greatest probability of achieving what the student wants becomes the most dependable and, in turn, most likely response (e.g., Gresham, 1991). In the previous vignette, regardless of the reason(s), since Juan backed away from Larry, the effect likely is the same, an increased probability of future aggression.

Knowledge alone does not change behavior. It is common practice for teachers to discuss with a student(s) a classroom transgression, with the expectation that together they can find a manageable solution. We know that many students with E/BD are very capable of putting into words the crux of the problem. "I know I blow it ... I should have controlled myself. I know I could have just walked away; but, he got in my face". However, knowledge alone does not change behavior (Van Acker, 2003). Research and experience amply demonstrate that students make questionable decisions in spite of a cognitive understanding of the situation (Steinberg, Dahl, Keating, Kupfer, Masten, & Pine, in press).

Flannery, O'Neill, and Horner (1995) posit that one reason students respond in a particular way is the predictability of the behavioral consequences. For many students, across time, acts of aggression involve less and less thought and come more and more easily—until they are automatic (Van Acker, 2003). If we are going to eliminate antisocial behavior there must be a compelling reason for the student to engage in an alternative behavior before it will take on the mantle of acceptability. That replacement behavior must be the response equivalent (serve the same function) and be at least as predictable and constant in producing the same reinforcement, outcome, or both (Fox & Gable, in press). In most cases, it will take a substantial amount of time and effort for students to unlearn long established patterns of antisocial or aggressive behavior (Van Acker, 2003).

Student social status and aggressive behavior. There is a growing body of literature suggesting that many students who engage in aggressive behavior enjoy greater popularity than their non-aggressive counterparts (Prinstein & Cillessen, 2003; Rodkin, Farmer, Pearl, & Van Acker, 1999). That is especially true in schools and communities in which violence is a

common occurrence. Assuming that aggressive behavior leads to increased popularity, a student is unlikely to abandon that behavior simply because an administrator or teacher insists that they do so. Given the influence peers exert over one another's behavior, attempts to eliminate aggression may need to include efforts to prop up the student's popularity among peers. In all, a complex mix of factors influences student behavior, the successful treatment of which is predicated on an understanding of both external and internal events.

Neurological Precursors to Antisocial or Aggressive Behavior

When students engage repeatedly in bouts of antisocial or aggressive behavior, these responses can become more or less automatic (Huesmann & Reynolds, 2001; Van Acker, 2003). Some experts affirm that these behaviors are regulated by events that occur within neural pathways of the brain. Over time and with repeated activation, it requires succeeding less energy and conscious thought to trigger an aggressive response (Magnusson, 1997). Experts assert that the problem is exacerbated by the fact that many children who exhibit antisocial or aggressive behavior have a history of traumatic events (e.g., punitive parental discipline, severe poverty, repeated academic failure, violence in the community) (e.g., Cullinan, 2002; Kauffman, 2001; Keiley, Kraatz, Dodge, Bates, & Petit, 2001). According to Nichols, these events can alter brain functioning in ways that adversely affect behavior (Personnel communication, November 2002). The supposition is that the cumulative effects of these contextual events can influence cognitive processing which, in turn, affects overt behavior. These traumatic events may lower the threshold for a student to engage in a negative response (Steinberg et al., in press). If a child engages often enough in a behavior—appropriate or inappropriate, the constant transmission of neurons strengthens that behavior; whereas, responses that occur at low rates may suffer from atrophy and eventually be extinguished.

While our knowledge is far from complete, there is evidence that the brain triggers the release of various chemicals that can affect behavior. For example, serious joggers often experience a "runners high," associated with the release of endorphins into the bloodstream. Music can have a similar effect on the listener (Zatorre, 1984). Likewise, strong emotional arousal, as when a student engages in bouts of aggression, can trigger the release of chemicals (neurotransmitters) that send nerve impulses to the body (Kettl, 2001). At the extreme, students can become addicted to the endogenous endorphins that are released by the brain. That is, some children with severe impairments engage in self-injurious behavior (SIB) (e.g., head banging), triggering a highly addictive chemical reaction, which increases the probability that SIB behavior will reoccur (Cataldo & Harris, 1982). As with less noxious antisocial or aggressive acts, the net result may be "errors in learning" (Lewis, Heflin, & DiGangi, 1991) that produce a pattern of antisocial or aggressive behavior that is extremely difficult to purge from

a students' repertoire. Obviously, school personnel can exercise little control over student brain chemistry; however, we feel that a better understanding of the complex nature of problem behavior may contribute to a more effective intervention.

Intervention Based on Cognitive, Affective, and Behavioral Aspects of Behavior

One way to conceptualize behavior intervention is as a competition between two opposing responses—one old and the other new. In large measure, success hinges on our ability to persuade the student what he/she has much to gain by engaging in the new behavior. For students with E/BD, behavior problems may require the bundling of interventions—across cognitive, affective, and behavioral domains, along with manipulation of the environment (e.g., Bandura, 1986; Kendell, 1993). Antisocial and aggressive behavior that has risen to an automatic response level may call for more complex and intrusive intervention than less challenging behavior (Van Acker, 2003). Lastly, the importance we attach to specific aspects of intervention may prove critical—especially when there is tension between arousal and control. In these cases, intervention priorities should be predicated on the fact that a student's emotions likely will prevail, as "affect trumps cognition" (Steinberg et al., in press). In succeeding sections, we discuss cognitive, affective, and behavioral aspects of a comprehensive intervention plan.

Promoting cognitive skill development. Students who fail to respond positively to conventional behavior change strategies must be taught directly and systematically a substitute response for behavior previously reinforced. If a student is to behave in ways that peers and adults find acceptable, the replacement behavior must not only serve the students needs, but also be elicited and reinforced more frequently and powerfully than the original behavior (Gable et al., in press). At a more fundamental level, students must be taught to rethink the problem/solution. To promote these cognitive skills, Nichols (2001) identified several overlapping strategies that can be systematically taught to students. They include: (a) alternative thinking—the ability to think spontaneously of more than one solution to a problem; (b) means-ends thinking—the ability to recognize it takes a planful approach and multiple steps to get to the desired goal; and, (c) consequential thinking—the ability to predict what will happen when one acts, and to do so quickly enough to change that plan if the consequences likely will be negative. Similarly, Sapp and Farrell (1994) recommend students be taught ways to subject their thoughts to critical self-analysis ("What proofs do I actually have that I can't do it?").

Previously, we discussed the problem that Larry's aggression posed to his classroom teacher. In response to that aggression, one option would be to give Larry an acceptable rationale to change his thinking in ways that lead to responses that produce more positive outcomes. Feindler and Ecton

(1986) suggest we tell students that reconstructing flawed thinking is analogous to working on a house that needs repairs. While the house may be structurally sound, a little work will make it substantially more livable. In attempting to overhaul a student's cognitive distortions or misperceptions, school personnel might teach the student to recognize: (a) the presence of tension, (b) what triggered the tension (i.e., internal and external factors), (c) negative or self-defeating thoughts associated with the tension, (d) ways to confront or dispute negative thoughts, and (e) ways to substitute a positive thought for the original negative thought (Feindler & Ecton, 1986). Students are taught to identify predictable everyday stressors and to respond more appropriately to them.

Promoting affective skill development. In addressing challenging behavior, school personnel may need to moderate a student's affect. Formal instruction might include: (a) ways to self-identify internal "early warning" signs (e.g., trembling or sweaty palms, flushed feeling, increased heart rate), (b) stress inoculation exercises (deep or relaxation breathing), and (c) concrete strategies to cope with predictable social/ environmental situations that trigger aggression such as: breaking eye-contact or walking away from a volatile situation (e.g., Graubard, Rosenburg, & Miller, 1974; Meichenbaum, 1977). Initial and subsequent instruction should focus on the topography of the behavior (how it looks and sounds) as well as its accompanying affective components (e.g., facial expression or verbal tone). A student may learn the appropriate behavior but fail to give a credible performance because of a flat affect and/or expression (F. Wood, Personal communication, November, 1998).

Promoting student self-control. Along with issues that relate to affect and cognition, the majority of students who engage in antisocial behavior have social skill and self-control deficits that adversely influence academic instruction and interpersonal relationships. In incorporating multiple, overlapping interventions, instruction on self-control might include: (a) teaching the student to recognize a potentially difficult situation (i.e., read internal stress and/or external pressure); (b) teaching the student "placeholder" behaviors (ways to stall or buy time to think about an appropriate response); (c) teaching one or more responses; and, (d) teaching the student to maintain the behavior through self-assessment, self-reinforcement, and self-monitoring by means of inner speech, including self-prompts and self-praise (Gable, Hendrickson, & Van Acker, 2002). Use of self-management procedures designed to reinforce behavior that is incompatible but functionally equivalent to the target behavior may increase significantly the probability of a successful outcome (Kern, Ringdahl, Hilt, & Sterling-Turner, 2001). According to Bandura (1997), the closer in temporal proximity (short-term rather than long-range goals) and the more appropriate the difficulty level (moderately challenging but attainable), the more probable positive behavior changes will occur.

Promoting anger management skills. Another common component of self-control involves anger management to curb the escalation of negative

thoughts and feelings, thereby controlling overt behavior that otherwise may precipitate a confrontation. As with self-control, anger management relies heavily on modeling and role-play exercises. Various authors suggest including "perspective taking" or "social role taking" exercises to enlarge a students' capability to put themselves in another persons' place (Feindler, Marriot, & Iwata, 1984; Nichols, 2001). Characteristics that appear to distinguish successful anger management programs include: (a) twelve or more treatment sessions (and subsequent booster sessions at regular intervals); (b) framing instruction so that it is aligned with student needs and realities; and, (c) use of parallel interventions (e.g., anger replacement training) (Skiba & McKelvey, 2000).

Manipulating the environment to promote behavior change. As we suggested earlier, some intervention plans will involve making strategic changes in the social context(s) and structure of the setting(s) in which the student manifested the original behavior (Bandura, 1986). Any stimuli that evoke an inappropriate/unacceptable response should be eliminated and replaced with stimuli that occasion an appropriate/acceptable response. Since that is not always practical, it may be necessary to teach the student how to respond to naturally occurring events, such as peer put-downs. The choice of intervention strategies depends on student strengths and weaknesses in relationship to the nature of the problem and its environmental context(s). However, by virtue of the choices they make, such as relationships, entertainment, and risk-taking behavior, students play a major role in shaping their environment (Steinberg et al., in press). Accordingly, treatment probably should include strategies that support establishment of an environment that facilitates positive, age-appropriate behavior.

Maintaining appropriate student behavior. Most authorities would agree that the ultimate goal of intervention is to produce enduring changes that improve the student's quality of life. There are several reasons why school personnel should engage classmates in efforts to maintain positive outcomes of intervention. First, casting peers in the role of therapeutic change agent is an empirically documented effective strategy for promoting and strengthening appropriate responses (Gable, Arllen, & Hendrickson, 1994). Once classmates are taught to prompt and reinforce acceptable behavior and to ignore unacceptable behavior, their presence becomes a signal (discriminating stimulus) for the student to respond in a particular way (Gable et al., 1994; Graubard et al., 1974). Second, the probability that a student will engage in the replacement behavior increases if it is under the same stimulus control as the original behavior (e.g., peer attention or approval). Third, peer presence is more contiguous and continuous than that of adults and verbal exchanges regarding one another's behavior is endemic to normal social interactions (Gable, Arllen, & Hendrickson, 1994). Finally, studies conducted with students with emotional/behavioral disorders show that students prefer peer-mediated to adult-implemented behavioral supports (Gable et al., 1994).

In sum, to the extent that we are able to teach students with emotional/

behavioral disorders what to expect in various situations—in terms of external and internal events, and how to respond to them, they will be able to exercise more control over their lives. With each of the preceding strategies—once taught, school personnel should determine the extent to which a student relies on the behavior and be prepared to reintroduce a scaled down version of the original instruction (Gable, Hendrickson, & Van Acker, 2002).

Conclusion

Across the country, education officials are searching for ways to respond to antisocial and aggressive acts that pose a threat to the safety of both students and adults. Some administrators continue to rely on punitive consequences, such as suspension or expulsion (Baer, 1998), while others recognize that harsh disciplinary measures fail to address the root cause and may actually exacerbate the problem (Meyer, 1990). These school officials are exploring alternative strategies to eliminate behavior problems, while assuring all students a safe and effective learning environment. Many of these strategies focus on cognitive, affective, and behavioral dimensions of student behavior (e.g., conflict resolution, refusal skills, and peer mediation).

We concede that some researchers and school officials express reservations about focusing on student affect and cognition. Part of that concern relates to traditional views on student discipline. Other concern stems from recognition of the complex relationship among thoughts, feelings, and behavior and the amount of speculation that is associated with attempts to interpret private events. There is some justification for the latter concern, particularly the risks associated with focusing on non-verifiable influences on behavior (e.g., Kauffman, 2001). However, one might argue that the same principles hold for private events—such as thoughts and feelings, as hold for public events. As Skinner (1953) pointed out, there is little reason to believe that what transpires inside the student has special properties simply because it is not observable. We suspect the real challenge is finding valid and reliable measures of both internal and external behavior and translating that information into viable intervention options.

The integration of the treatment of affective and cognitive correlates of overt student behavior is still in its formative stages. Numerous issues have yet to be resolved. For example, issues surrounding the technical adequacy of available measurement tools raise serious questions. Another challenge is the fact that we know little about the relationship between culture and language and affect and cognition or how to incorporate that knowledge into the intervention process. In addition, we have scant evidence regarding the various scaffoldings we must build to support positive behavior change across time. However, we do know some of what constitutes effective intervention.

As with academics, decisions about behavior intervention should be

made on a pupil-specific basis—one size does not fit all (Ruhl & Berlinghoff, 1992). Those decisions should be based on objective data collected by various means (records review, student interviews, and direct observation) and from multiple sources (teachers, peers, and the student). It is important to maintain equilibrium between functional data and their equitable interpretation. Furthermore, given the incorrigible nature of antisocial and aggressive behavior of students with E/BD, school personnel will need to rely on multiple, overlapping, and longitudinal interventions that simultaneously focus on eliminating target behavior and replacing it with an equivalent response(s). Lastly, regardless of the nature of the intervention effort, it must reflect expectations that are consonant with the students' classroom reality and beyond.

References

- Baer, G.G. (1998). School discipline in the United States: Prevention, correction, and long-term social development. *School Psychology Review, 27*, 14-32.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A., & Walters, R.H. (1963). *Social learning and imitation*. NY: Holt, Rinehart, & Winston.
- Cataldo, M.F., & Harris, J. (1982). The biological basis for self-injury in the mentally retarded. *Analysis and Intervention in Developmental Disabilities, 2*, 21-39.
- Chandler, L.K., & Dahlquist, C.M. (2002). *Functional assessment: Strategies to prevent and remediate challenging behavior in school settings*. Upper Saddle River, N.J.: Merrill-Prentice Hall.
- Cole, C.L., Davenport, T.A., Bambara, L.M., & Ager, C.L. (1997). Effects of choice and task performance on the work performance of students with behavior problems. *Behavioral Disorders, 22*, 65-74.
- Cullinan, D. (2002). *Students with emotional and behavioral disorders*. Upper Saddle River, N.J.: Merrill-Prentice Hall.
- DePaepe, P., Shores, R., Jack, S.L., & Denny, K. (1996). Effects of task difficulty on the disruptive and on-task behavior of students with severe behavior disorders. *Behavioral Disorders, 21*, 216-225.
- Derby, K.M., Wacker, D., Sasso, G., Steege, M., Northrup, J., Cigrand, K., & Asmus, J. (1992). Brief functional assessment techniques to evaluate aberrant behaviors in an outpatient clinic: A summary of 79 cases. *Journal of Applied Behavior Analysis, 25*, 713-721.
- Dunlap, G., Kern, L., dePercael, M., Clarke, S., Wilson, D., Childs, K.E., White, R., & Falk, G.D. (1993). Functional analysis of classroom responding for students with emotional and behavioral disorders. *Behavioral Disorders, 18*, 275-293.
- Ellis, A. (1962). *Reason and emotion in psychotherapy*. NY: Lyle Stuart.
- Feindler, E.L., & Ecton, R.B. (1986). *Adolescent anger management: Cognitive-behavioral techniques*. NY: Pergamon Press.
- Feindler, E., Marriot, S., & Iwata, M. (1984). Group anger control for junior high delinquents. *Cognitive Therapy & Research, 8*, 299-311.
- Flannery, K.B., O'Neill, R.E., & Horner, R.H. (1995). Including predictability in functional assessment and individual program development. *Education and Treatment of Children, 18*, 499-509.
- Fox, J.J., & Gable, R.A. (in press). Functional behavioral assessment in schools. In R. B. Rutherford, Jr., M. M. Quinn, & S. Mathur (Eds.). *Handbook of research in behavioral disorders*.

- Gable, R.A., Quinn, M.M., Rutherford, R.B., Jr., Howell, K., Hoffman, C., & Butler, C.J. (in press). *Conducting functional behavioral assessment and developing positive intervention plans*. CO: Sopris-West.
- Gable, R.A., Hendrickson, J.M., & Van Acker, R. (2002). Maintaining the integrity of positive behavior change stemming from functional behavioral assessment in schools. *Education and Treatment of Children, 24*, 248-260.
- Gable, R.A., Arlen, N., & Hendrickson, J.M. (1994). Use of students with emotional/ behavior disorders as behavior change agents. *Education and Treatment of Children, 17*, 267-276.
- Gardner, W.I., & Sovner, R. (1994). *Self-injurious behavior: Diagnosis and treatment*. Willow Street, PA: VIDA.
- Gresham, F. (1991). What ever happened to functional analysis in behavioral consultation? *Journal of Educational and Psychological Consultation, 2*, 387-392.
- Gruabard, P., Rosenberg, H., & Miller, M.N. (1974). Student applications of behavior modification to teachers and environments or ecological approaches to social deviancy. In R. Ulrich, T. Stachik, and J. Mabry (Eds.). *Control of human behavior* (pp. 421-432). Glenview, IL: Scott Foresman.
- Hawkins, D.L., Pepler, D.J., & Craig, W.M. (2001). Naturalistic observations of peer interventions in bullying. *Social Development, 10*, 512-527.
- Huesmann, L.R., & Reynolds, M.A. (2001). Cognitive processes and the development of aggression. In A. Bohart & D. Stipeck (Eds.). *Constructive and destructive behavior: Implications for family, school, and society*. Washington, D.C.: American Psychological Association.
- Kauffman, J.M. (2001). *Characteristics of emotional and behavioral disorders of children and youth*. (7th Ed.) Upper Saddle River, NJ: Merrill Prentice Hall.
- Kendall, P.C. (1993). Cognitive behavioral therapies with youth: Guiding theory, current status, and emerging developments. *Journal of Consulting and Clinical Psychology, 61*, 235-247.
- Kern, L., Ringdahl, J.E., Hilt, A., & Sterling-Turner, H.E. (2001). Linking self-management procedures to functional analysis results. *Behavioral Disorders, 26*, 214-226.
- Kern, L., Dunlap, G., Clarke, S., & Childs, K.E. (1994). Student-assisted functional interview. *Diagnostique, 19*, 29-39.
- Kettl, P. (2001). Biological and social causes of school violence. In M. Shafii & S.L. Shafii (Eds.). *School violence: Assessment, management, and prevention*. (pp. 53-72). Washington, DC: American Psychiatric Publishing.
- Keiley, M., Kraatz, T.R., Dodge, K.A., Bates, J.E., & Petit, G.S. (2001). The timing of child physical maltreatment: A cross-domain growth analysis of the impact on adolescent externalizing and internalizing problems. *Development and Psychopathology, 13*, 891-912.
- Leff, S.S., Kupersmidt, J. B., & Power, T.J. (2003). An initial examination of girl's cognitions of their relationally aggressive peers as a function of their social standing. *Merrill-Palmer Quarterly, 49*, 28-54.
- Lewis, T., Heflin, G., & DeGangi, S.A. (1991). *Teaching students with behavioral disorders: Basic questions and answers*. Reston, VA: Council for Exceptional Children.
- Lochman, J.E., & Dodge, K.A. (1998). Distorted perceptions in dyadic interactions of aggressive and non-aggressive boys. Effects of prior expectations context, and the boy's age. *Development and Psychopathology, 10*, 495-512.
- Magnusson, D. (1997). *A lifespan development of individuals: Behavioral, neurological, and psychosocial perspectives*. Stockholm, Sweden: Stockholm University Press.
- Mayer, G. (1990). Preventing antisocial behavior in schools. *Journal of Applied Behavior Analysis, 28*, 467-478.
- Meichenbaum, (1977). *Cognitive behavior modification*. NY: Plenum.
- Miller, N.E., & Dollard, J. (1941). *Social learning and imitation*. New Haven, CN: Yale University Press.
- Nichols, P. (2001). Role of cognition and affect in a functional behavioral analysis. *Exceptional Children, 66*, 391-402.

- O'Neill, R.E., Horner, R. H., Albin, R. W., Story, K., Sprague, J., & Newton, J.S. (1997). *Functional assessment and program development for problem behavior: A practical handbook*. Pacific Grove, CA: Brookes/Cole.
- O'Neill, R.E., Horner, R. H., Albin, R. W., Story, K., & Sprague, J. (1990). *Functional analysis of problems behavior: A practical assessment handbook*. Sycamore, IL: Sycamore Publishing.
- Prinstein, M.J., & Cillessen, A.N.H. (2003). Forms and functions of adolescent peer aggression associated with high levels of peer status. *Merrill-Palmer Quarterly*, *49*, 33-45.
- Reed, H., Thomas, E., Sprague, J., & Horner, R. (1997). The student guided functional assessment interview: An analysis of student and teacher agreement. *Journal of Behavioral Education*, *7*, 33-45.
- Rodkin, P.C., & Farmer, T.W., & Pearl, R., & Van Acker, R. (1999). Heterogeneity of popular boys: Antisocial and prosocial configurations. *Developmental Psychology*, *36*, 14-24.
- Ruhl, K.L., & Berlinghoff, D.H. (1992). Research on improving behaviorally disordered students' academic performance: A review of the literature. *Behavioral Disorders*, *17*, 178-190.
- Sapp, M., & Farrell, W. (1994). Cognitive-behavioral interventions: Applications for academically at-risk and special education students. *Preventing School Failure*, *38*, 19-24.
- Shores, R., Gunter, P., Denny, K., & Jack, N. (1993). Classroom management strategies: Are they setting events for coercion? *Behavioral Disorders*, *18*, 92-102.
- Skiba, R., & McKelvey, J. (2000). *Anger management: What works in preventing school violence*. Bloomington, IN.: Safe and Responsive Schools Project.
- Skinner, B.F. (1953). *Science and human behavior*. NY: Macmillan.
- Skinner, B.F. (1975). The steep and thorny way to a science of behavior. *American Psychologist*, *30*, 42-49.
- Smith, S.W. (2002). *Applying cognitive-behavioral techniques to social skills instruction*. OSEP Digest E630. Arlington, VA: ERIC Clearinghouse on Disabilities and Gifted Education.
- Steinberg, L., Dahl, R., Keating, D., Kupfer, D.J., Masten, A.S., & Pine, D. (in press). The study of developmental psychopathology in adolescence: Integrating affective neuroscience with the student of context. In D. Cicchetti (Ed.). *Handbook of developmental psychopathology*. New York: John Wiley and Sons.
- Watson, J.B., & Ryner, R. (1920). Conditioned emotional reactions. *Journal of Experimental Psychology*, *3*, 1-14.
- Vaughn, K., Hales, C., Bush, M., & Fox, J.J. (1998). East Tennessee States' "make a difference" project: Using a team-based consultative model to conduct functional behavioral assessments. *Preventing School Failure*, *43*, 24-30.
- Van Acker, R. (2003). The origins of noncompliant, acting-out, and aggressive behavior in children and youth. In L. M. Bullock, R. A. Gable & K. J. Molley (Eds.). *Prevention/intervention for noncompliant, acting-out, and aggressive behavior: Promoting positive student outcomes*. Reston, VA: Council for Children with Behavioral Disorders.
- Zatorre, R.J. (1984). Musical perception and cerebral function: A critical review. *Music Perception*, *2*, 196-221.

Copyright of Education & Treatment of Children is the property of ETC and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.