Differentiating Behavioral & Traditional Case Formulations for Children with Severe Behavioral & Emotional Problems

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Abstract

In this paper, a behavioral case formu lation is contrasted with traditional mental health formulations about children presenting severe behavior problems. It appears to be the conventional wisdom of today that sending children with severe problem behaviors to "counseling" or "therapy" is the best method for changing these behaviors. This belief predominates despite a lack of empirical evidence demonstrating that s evere behavior problems of children are not effectively treated with such an approach. Behaviorists treat these children by altering the maintaining contingencies in the current environment. However, once the structure of the altered environment is no longer present, treatment effects often fail to generalize and the child returns to pre-treatment levels. The traditional mental health model is used to explain why this occurs. A behavioral case formulation approach is presented. It is contrasted with traditional mental health formulations about children presenting severe behavior problems. A real life case example illustrates the utility of a behavioral case formulation and its direct relationship to treatment.

Keywords: traditional case formulation, behavioral case formulation, functional behavior-analytic approach, maintaining contingency

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Introduction

Children with severe presenting behavior and emotional problems usually are involved with many human service agencies, including mental health. Traditional mental health professionals cite the need for a case formulation and differential diagnosis before a treatment plan can be designed and implemented. Traditional case formulations for children who pose severe behavioral problems view such problems as a reflection of vague, underlying abstract concepts, such as: personality traits, psychopathology, lack of attachment, etc.

Take the hypothetical case of a nine-year-old boy living with his mother and father. He is diagnosed with oppositional defiant disorder and has been expelled from school twice since the beginning of this year. He is reported to have an uncontrollable level of anger, and often gets into arguments and sometimes physical altercations with his peers over seemingly inconsequential issues. He therefore has few friends, and if he does befriend someone, they don't stay friends very long. He receives intensive individual psychotherapy twice a week. His therapist reports he has been unmotivated to discuss any issues relating to his relationship with his mother and father, using play therapy as the vehicle for developing a trusting relationship with this child.

To diagnose this child with oppositional defiant disorder (see DSM-IV-R manual) is sufficient for many mental health professionals. When asked why this child is aggressive, their response would be, "It is a symptom of his underlying disorder, that being oppositional defiant disorder. He acts aggressively because he has this disorder." The traditional view is that people exhibit symptoms because they have a disorder and that if they have this disorder, they cannot help it. Following this logic, it would be assumed that whenever this child engages in oppositional and aggressive behavior, it is his oppositional defiant disorder that makes him act that way. One should expect that he will engage in this behavior from time to time. Such an approach further presumes that oppositional and aggressive behavior will occur irrespective of context and consequences. The role of the existing environmental response to such behavior is trivialized (Cipani & Schock, 2007). The environmental response to such behavior is made unimportant at best, and exacerbating the emotional condition, at worst.

In contrast, a behavioral case conceptualization would consider the environmental context of the behavior a major factor. Instead of saying that this child engages in aggressive behavior toward peers because he has anger issues, a behavioral analysis of such incidents might possibly ascribe such to the purpose or function the overt behavior serves in that child's environment . What is a more plausible explanation for this hypothetical child's oppositional and aggressive behavior during these circumstances? That he does this because he is disordered? Or does the explanation lie in an understanding of how such a behavior impacts his environment? An understanding of why the behavior occurs is better served through an analysis of the behavior's ability to produce desired events or terminate undesirable events.

Therefore, a behavioral case conceptualization would examine the observable events in the social environment (Bailey & Pyles, 1989; Cipani, 1994; Cipani, 1995; Iwata, 1987; LaVigna, Willis & Donnellan, 1989; Lennox & Miltenberger, 1989; Rolider & Axelrod, 2000; Schock, Clay, & Cipani, 1998). In the above hypothetical case, one would examine what happens in the social environment when the child becomes argumentative with peers and on occasion aggresses against them. What is the antecedent context for aggressive behavior? Are the child and his peers fighting on the playground over a toy or activity? If they are, is aggression successful in procuring the toy from the peer? Are verbal arguments regarding the possession of the toy precursor behaviors to aggression? How effective are arguments in the short and long-term at resolving the toy dilemma? This examination of temporally ordered environmental events can reveal the purpose of these behaviors in this context.

In a behavioral case conceptualization, all operant behavior is viewed as serving an environmental function. The functions of operant behavior are either to access something or terminate/avoid something (not withstanding genetic influences for some behaviors). While other psychological explanations invoke hypothesized traits as a result of developmental conflicts, an environmental functional viewpoint examines the role of the social and physical context. It deals with events that are observable and measurable to an audience.

For example [1], we may find out that a child, Oskar often engages in aggressive behavior towards his mother when he comes home from school. The exact chain of events involved in this scenario are very important in formulating a behavioral case conceptualization, in contrast to a traditional approach. Let us say that the contexts for aggression are along the following lines. Oskar's mother wants him to stay in the house for awhile and either do his homework or finish cleaning up his room. Oskar, of course, wants to go outside and play with his friends. He sometimes will complain and whine. His mother will respond to such complaining with the following retort: "You need to finish your homework. How do you expect to pass third grade? Once you are done with your homework, then you can go outside." This parental response to his behavior incurs more arguing from him, with renewed arguments from his mother for each of his assertions. When Oskar sees that his arguing with his mother is not helping his cause (i.e., getting to go outside) he tries another tactic. He states, "I'm going to leave and you can't stop me." When he begins to exit the house, she grabs him. At this point, he yells at her, calls her names, and hits her. After a struggle, Oskar pulls away and heads out the door. The mother, tired of fighting with her son, lets him go, complaining that he is just like his father.

With the above information, what is a more plausible explanation for this child's behavior during these circumstances? That he does this because he is disordered? Or does the explanation lie in an understanding of how such an aggressive behavior impacts his environment? Does arguing with his mother result in him going outside? Or does he get to go outside when he becomes assertive (walking to the door) and combative (when he hits his mother as she tries to get him to stay inside)? What is the best

[1] This example of Oskar is adapted with permission from Cipani & Schock (2007); Behavioral assessment, diagnosis, and treatment: A complete system for education and mental health settings. Springer Publishing Page 3

explanation for his aggressive behavior in the afternoon? He does it because it "works" for him when he wants to go outside, whereas other behaviors such as complaining are often less effective. Given this powerful effect that aggression has on his environment, what will change Oskar's behavior?

Perhaps the greatest danger of a traditional case conceptualization is the insistence that consequences not be presented when problem behavior occurs. Traditional theoretical formulations often posit such acts of the environment as disastrous for the child's well being. In contrast, proponents of such approaches promote emotional support at the time of the transgression as best practice. Again, data demonstrating that providing "emotional support" contingent upon aggressive behavior as an effective strategy in reducing the level of such behavior are in short supply. In contrast, a study that examined the effect of comments of a pleading nature, contingent upon self abuse, found disastrous effects for "contingent pleading" (Cipani, Brendlinger, Usher, & McDowell, 1990). During the pleading condition, the result of such an intervention exacerbated the target behavior, quite in contrast to the relative to the effects accruing to one of two experimental conditions deploying behavioral contingencies.

It appears to be the conventional wisdom of today that sending children or clients with severe problem behaviors to "counseling" or "therapy" is the best method for changing these behaviors. This belief predominates despite a lack of empirical evidence demonstrating that severe behavior problems of clients or children are effectively treated with such an approach. But let's look at the nature of the "counseling" or "therapy" interventions and what we now know about client behavior. Perhaps we can determine why such approaches may be so ineffective for many children and clients with problem behaviors.

Can anyone (through counseling/therapy) convince Oskar that his behavior with his mother is not in his best interest? What is in Oskar's best short term interest? It is getting to go outside. What behavior is most effective at producing such? Simply ignoring his mother's requests to stay inside and walking out of the house is effective. If such behavior is blocked, aggression at some level produces a removal of such attempts to thwart movement toward the door. Can any adult, irrespective of how many degrees and/or credentials s/he possesses, talk to Oskar once or twice a week and convince him to simply comply with his mother's request to stay inside and do his homework? The problem is not just with the child! It is also with the way the child's environment responds to his/her behavior.

Behaviorists know that what works is to alter the maintaining contingency. In a functional behavioral treatment, the function of the presenting problem needs to be disabled, while an alternate function (that is more acceptable) needs to be enabled (Cipani & Schock, 2007). To determine how such consequences should be altered, a behavioral case formulation, relying heavily on ascertaining the social and environmental function of the presenting problems is needed. The example below illustrates a behavioral case formulation.

Case Description

Steve[2] was the type of child who could strike fear, anger and resentment in the hearts of teachers and principals alike. He was nine years old, attending an elementary school in a rural area of California. He spent half his day in third grade and the other half in a resource room. He displayed extreme behavioral difficulties at school, including refusal to do work and aggression toward teachers, principals and other children. He was expelled from school as a result of a physical assault on his third grade teacher and the principal. Steve was on Prozac as a medical treatment of his behavioral problems and was also attending counseling sessions with a therapist. Steve had several Axis I diagnoses, including major depression and post-traumatic stress disorder (PTSD). Steve's externalizing problems and hypothesized

[2] Names have been changed to protect child confidentiality and teacher privacy

depression were seen as manifestations of the trauma he must be suffering from the suspected abuse. Unfortunately, no effective interventions resulted from such diagnoses, including traditional psychological and psychiatric interventions.

Steve and his family had been involved with Child Protective Services (CPS) as a result of family turmoil. Steve was also rebellious in the home. As a result of a number of incidents involving neglect, physical abuse and altering his medications (his father had given him some of his own Prozac), he was detained by CPS. He was placed in a foster home but quickly proved to be a nightmare for this family. After a short stay the foster mother called CPS during one of his outbursts. While the foster mother was on the phone with the emergency on-call person, Steve began to rant and scream profanities. When he threatened to "kill the family," the police were called and he was moved to a psychiatric hospital.

It soon became apparent that Steve would not comply with any regimen. At the psychiatric hospital his behavior became increasingly more difficult to deal with. He often argued and fought with staff and the other patients, and was placed in isolation on many occasions. The attending physician felt that there was no other alternative.

He was de-admitted from the hospital as a result of their evaluation of his progress- there was none. The staff felt they could not handle him, so CPS was forced to take him back. With no other place to go, they returned him back to the care of his father and mother. This news eventually reached the school district, and the phrase, "He's back," must have reverberated through the minds of the teachers and administrators of the school.

It is an understatement to say that Steve was not welcomed back to his school. His aggression to the teacher and other students in the class made his return a safety issue. The principal was adamant that he would not return unless he had two psychiatric technicians by his side, supplied by the County. It was at this point that he was afforded one hour a day of home instruction with his resource specialist teacher.

I became involved through CPS. Their request of me was to develop a plan for Steve and his family to better adapt to each other and remove the neglectful and abusive conditions. The school had not requested outside help at this point (nor would they ever), other than body guards (i.e., psychiatric technicians) for the protection of everyone from Steve. The County had balked at having two technicians assigned to one child. Thus, the educational plan was for Steve to have home instruction. Steve's resource specialist teacher was accompanied by one psychiatric technician each day she went to Steve's home.

While I was busy conducting the assessment in the home environment, Steve's home instruction was not proceeding well. Every day the teacher and the psychiatric technician (psych tech) would show up at the house. The teacher would take the assignment for the one hour period out as well as the homework and present the material to Steve. Steve would then refuse to do such work. The teacher would wait a period of time. If Steve did not engage in the assignment, she would leave early, usually within the first ten to 20 minutes of arriving. Mental health administrators were concerned that Steve's lack of progress with his home instruction program did not bode well for his eventual return to the elementary school. I was directed to invest my time and energy immediately into solving this problem first.

Traditional hypothetical case formulation

Children learn through early experiences of attachment to their primary caregivers how to handle physiological arousal, i.e. soothe themselves when they are upset, express their feelings verbally rather than acting upon them and tolerate uncomfortable emotions (Putman, 1991). Thus, one traditional case conceptualization about child problems might suggest that children who have experienced abuse and neglect in early childhood undergo a series of events that eventually result in their exhibiting severe

behavior problems. Abused and neglected children do not have the opportunity to attach to caregivers who help them to modulate their emotional arousal, with soothing behaviors such as feeding, rocking and stroking. As a result, they often experience behavioral disregulation and learn unhealthy behavior patterns in an attempt to deal with their distress (i.e. gaze aversion, self-sucking and dissociation) (Graner & Olness, 1981). These early behavior patterns manifest themselves later in life in the several ways. One way is exhibiting aggression towards themselves (depression, eating disorders, substance abuse) and others (poor impulse control) (Cicchetti & White, 1990; van der Kolk, Roth, & Pelcovitz, 1994). Another manifestation of this is "numbing out" and failing to tolerate those feelings (dissociation) (Herman, 1992; van der Kolk, Lindemann, & Fisler, 1994; van der Kolk, Roth, & Pelcovitz, 1994), which often takes the form of "hyperactivity", "spacing out" and "crazy lying" (Puttman, 1991). A third way this is manifested is expressing those feelings through bodily dysfunction (somatosizing) (Herman, 1992; van der Kolk, Lindemann, & Fisler, 1994).

In Steve's case, it appears that early abuse and neglect have impaired his attachment to his primary caregivers (i.e. his mother and father). Steve's lack of attachment has resulted in an inability to deal with painful emotions causing him to react with explosive aggression when he experiences feelings of inadequacy (when he cannot succeed academically or is reprimanded or corrected by a teacher) or anger (when he does not get his way).

As long as Steve is given work that is not too difficult (so he does not feel inadequate) and he is with someone he likes and who he perceives likes him (someone who provides unconditional positive regard), he will function well (the behavior plan that has been formulated). However, when this structure is removed (he is given work that is too difficult) or he perceives that someone is unfair or does not like him (someone puts a demand on him that he doesn't like or thinks is unfair), he will be unable to deal with the negative emotions that will be elicited. Whereas the behaviorists' interpretation of these events will be that the behavior change that has occurred has not been maintained because the behavior plan has "failed to generalize," the traditionalist model would view this as a "lack of internalization of a positive working model." Thus, treatment of children such as Steve must include:

1) A cognitive component in which he verbalizes the trauma experience to promote understanding and healing and to correct cognitive distortions learned from the experience (Pennebaker & Susman, 1984)
2) An emotional component in which attachment to a nurturing, supportive adult can provide a corrective emotional experience (Luthar & Zigler, 1991)
3) A behavioral component in which he can learn appropriate ways of experiencing, toleration and expressing emotions.

Only then can Steve be expected to lead a life in which he can succeed without the existence of an external structure that provides consistent environmental contingencies.

Behavioral Case Conceptualization

Why was Steve so averse to doing his school work? The resource teacher said that he could be difficult in her class, but this was minor in comparison to what Steve would do when he was in the regular class. He was by all descriptions out of control when he was attending the third grade class. This obviously begs several questions: Why did Steve have such difficulty with school assignments when he was attending school? Is it simply enough to conclude that he has PTSD and/or major depression and that causes him to be oppositional during seat work assignments? A second related question; Why is the resource teacher now having such difficulty with him on home instruction?

As a behavioral psychologist, I was aware that refusal behavior could best be understood by assessing the environmental context in which such problems may emerge. Refusal to engage in academic tasks can often be a behavior that is maintained by negative reinforcement contingencies. A functional diagnosis of such behavior (Cipani & Schock, 2007) might be socially mediated escape from difficult tasks (SME 4.3: relatively difficult tasks, instruction, chores). Given this diagnosis, a plausible hypothesis regarding the antecedent and motivational conditions for his problem behaviors at school would be the presentation of difficult academic material. Students who have academic skills that are several grade levels below the classroom curriculum are at risk for exhibiting various escape (and avoidance) behaviors during classroom instruction. The occurrence of oppositional and defiant behavior in the classroom would be socially mediated by the teacher terminating or withdrawing such tasks contingently. Such mediation could take the form of changing the assignment contingent upon some forms of protest and/or sending him to the principal's office for more severe and inappropriate forms of opposition. Unfortunately, such an analysis was unavailable to me since Steve was not going to school anymore.

Perhaps identifying the current function of refusal behavior in the home instruction context might shed some light on what was at the heart of Steve's problems in third grade. It is not hard to deduce that the teacher leaving upon his refusal to do work certainly does not appear to be a well thought out functional behavioral plan for dealing with such refusal behavior. However, simply hanging around waiting for him to engage in work would probably not be much better. His unwillingness to complete the assignments and tasks may be more than simply a motivation problem. His unwillingness might be a function of the type of assignments he is being given. The intervention would then have to take such an academic skill deficit into account.

It did not take long upon my first visit, observing the home instruction, to clearly identify the source of his refusal behavior. It would have been apparent to even a novice that the assignments were "way above his head." The assignments came from the third grade teacher. I asked the resource teacher why she was giving him this material (since she knew what Steve was capable of), and she responded, "It was sent by the third grade teacher." It was now clear why Steve was refusing to do such work and what the behavioral function of refusal was. It was also clear that Steve's refusal behavior was seen by many others as indicative of his mental health "issues" and therefore was somewhat expected and accepted.

A behavioral case conceptualization of Steve's presenting refusal problem incorporates an analysis of both motivational variables and functional target behavior contingencies. The presence of difficult material sets up an aversive condition that makes behaviors that terminate such an aversive condition more likely (analysis of motivational variables). What is left is what escape behaviors are reinforced by the social environment (contingency analysis). In the present context of home instruction, it was verbal refusal, whereupon the teacher simply waited a period of time and then left.

Behavioral Plan

I met the resource teacher in her classroom trailer the following day to re-design the curriculum for Steve. I indicated that she should ask him to perform only tasks that he was fairly adept with at this point (thus reducing the need to escape from instruction). Having addressed the escape function as in some part due to the difficulty of the materials, I now had to identify a possible powerful reinforcer that would motivate him to complete these easier assignments. Just changing the assignment may not be sufficient, since we now have a history of refusal in the home instruction setting and will need to break this behavioral pattern. The reinforcer that would be contingent upon completion would have to be something that he cannot get from home or friends, since his ability to independently access such an event would negate its utility in a behavioral plan. The answer came when the resource teacher relayed to me that Steve has always liked his first grade teacher, Mrs. Falon. She indicated that he had very few problems when he was in her class two years ago. In fact he would sometimes go and help her out during

school hours or after hours, by helping the first grade students with their reading assignments. Why would he volunteer to be in an academic context? This was reading material he was competent at *(i.e., it gave him a place in the school where he was competent*). As soon as she said this, I knew I found my answer.

I would make Steve's access to help in the first grade class contingent on performing his assignments for the one-hour home instruction period. Each time he completed his assignments, he would be given a star for that day. His assignments for the one hour were written on a task chart, with 3-4 tasks per day. Each time he completed a task, it was checked off by the teacher. He earned a star when he had all the tasks checked off.

When he had accumulated four stars, he was given a pass to go the following day (or shortly thereafter) to school to spend one hour in Mrs. Falon's class. This plan would continue until I felt we could increase the behavioral requirement for Steve to access the reinforcer. Steve would have to follow the rules established by Mrs. Falon, lest he lose (for the remainder of the time period) his privilege to be a class helper.

Results

Within the first three weeks, once some mistakes in implementation were straightened out, Steve was reliably earning his stars and getting to help in the first grade class. There was not one incident when he was in Mrs. Falon's class. His progress was so remarkable (*school personnel had previously felt that he would never respond to any intervention attempts*) that the resource teacher broached the subject with me to bring him back to the trailer for part of the school day. We agreed that he could do this for one hour and that he would be there at a time when other children were not scheduled.

Within a month he was working several hours in the trailer with other children in attendance with no incident (no aggressive behavior toward peers or teacher, no extreme outbursts). The teacher was delighted with his progress and indicated that next year she would transition him into a full day program, with hopes of getting him back into regular education in areas that he was within range of the general curriculum. I asked that we meet before the beginning of the school year to plan his program. I indicated that I was concerned that we would need a behavioral plan for recesses where he previously had gotten into fights with other children. I was elated that we had succeeded in turning this child around and that he was now benefiting from an educational program.

Summary

A behavioral case conceptualization is in striking contrast to traditional mental health case conceptualizations about children presenting severe behavior and emotional problems. Through the behavioral case conceptualization, the behavior analyst attempts to understand and analyze the contextual nature of the presenting behavior problems. If the functions of the presenting problems are determined, then functional treatments can be developed to address the controlling variables and change the environmental responses to such behaviors.

Using the behavioral approach is absolutely essential for getting behaviors under control and providing opportunities for reinforcing appropriate behaviors. It changes the way we think about the causes of behaviors, providing explanations for current behaviors in terms of the antecedents and consequences operating in the contexts in which the behaviors occur. It causes us to look for the causes of problem behaviors, not with "fictitious explanations" of disorders or diseases within the child, but as a functional or adaptive way of coping with the inconsistent, overly punitive or non-responsive environment (such as an abusive or neglectful home). By systematically changing the environment in which the child resides, works and plays (school, home, bus, daycare, playground), we can provide

situations in which problem behaviors no longer serve the functions they once served, but instead become irrelevant, inefficient or unnecessary (reference). The problem with this approach is that it necessitates that the behavior analyst must work to change all the stimulus conditions (significant others, available reinforcers, antecedent stimuli, etc.) in all the child's environments or potential environments. Once the child encounters an environment where the contingencies make the problem behavior necessary, relevant or efficient, based on the function of the behavior, the child and his/her behavior are back to square one.

Behaviorists also avoid the use of vague, underlying, "mentalistic" unobservable and unmeasurable concepts that traditional psychologists use to explain behavior. However, in doing so, behaviorists neglect the possibility that there are other factors that may influence current behavior other than the current environment and that learning about those other factors may provide a valuable contribution to treatment. Behaviorists are aware that different individuals react to the same environment in unique ways. Certain stimuli serve as discriminative stimuli (Sd) for exhibiting very different responses depending on the learning histories of the individuals involved. For example, the presence of a parent for a 4-year-old child that is growing up in a typically happy and healthy home is an Sd for approaching and requesting to be picked up. On the other hand, the 4-year old in an abusive home may view the presence of a parent as an Sd for avoidance and crying. Much developmental literature has been written about these differences and the specific parenting behaviors that are correlated with each of these reactions. Rather than viewing this literature as irrelevant and unimportant because the terminology refers to a concept that the person "has" or is effected by from "within", it may be helpful to view this literature with a critical but open mind to find out more about genetic factors and learning histories.

When we study the developmental literature, it seems to be helpful to group some of the genetic and biological factors (sequence of development due to maturation, for example) as well as common learning histories (such as early childhood abuse and neglect, for example) that may provide some clues as to the features of early childhood learning experiences that are correlated with behavior problems that occur under certain stimulus conditions. In doing so, we may be able to deal more effectively with factors that are biological in nature and alter factors that are due to learning history by creating new learning experiences.

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