A Transtheoretical Approach to Case Formulation

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In answer to the need for a comprehensive, systematic, yet flexible case formulation method, the present article describes the Causal Analysis and Synthesis of Events (CASE) system, a transtheoretical case formulation method. This method of functional case formulation is useful in terms of explicating the problem and identifying potential areas for intervention when dealing with clinical problems of both an intrapersonal and interpersonal nature. Further, this formulation method may improve communication between the therapist and the client during case conceptualization and facilitate dialogue between therapists of different theoretical orientations. This paper describes the case formulation method and includes an example incorporating this case formulation technique for a young man with social phobia.

Case formulation is the link that ties together the clinical assessment and intervention phases of therapy and, as such, is an integral part of the therapy process (Goldfried & Davison, 1976, 1994; Nezu, Nezu, Friedman, & Haynes, 1997; Nezu, Nezu, & Lombardo, 2004; Persons, 1989). As described by Goldfried and Davison (1976, 1994), case formulation serves the important purpose of identifying those variables that should be the focus of the intervention, as they are believed to be maintaining the clinical problem. For instance, if a client’s problematic behaviors (e.g., withdrawal from a significant other) are a function of an emotional response (e.g., anger), then a behavioral analysis that links these two variables can inform the therapist about a relevant target for intervention. Moreover, if the emotional response is based on a distorted perception, then this distorted cognition might similarly become the focus of the therapy.

The classic behavioral model of case formulation focused solely on the role of the external stimulus (S), and its resultant response (R); S → R (Goldfried & Davison, 1976). Early on, the role of response consequences (i.e., reinforcement, punishment) was recognized, and the model was thus altered to account for the stimulus (S), which led to the response (R), and ultimately to the ensuing consequences (C); S → R → C. Soon afterwards, the increasingly cognition-based zeitgeist of the 1970s suggested a role for cognition and other organismic variables (e.g., emotion) in human behavior. To keep pace with these new developments in the field, Goldfried and Davison (1976) suggested the inclusion of these organismic variables (O) in cognitive-behavioral case formulation; S → O → R → C. However, with further clinical and research advances in the field, it has become clear that the category of variables that could be construed as “organismic” is too heterogeneous, leading to the creation of more detailed models (i.e., Goldfried, 1995).

The model of case formulation to be described in this paper grew out of a coding system that was developed for conducting comparative therapy process research, examining the similarities and differences between cognitive-behavior therapy and interpersonally oriented psychodynamic therapy (Goldfried, Newman, & Hayes, 1989). The Coding System for Therapeutic Focus (CSTF) was developed as a transtheoretical metric that could identify and compare the focus of therapeutic interventions within these two orientations, such as to what degree the focus was on thoughts, emotions, links between thoughts and emotions, and other interrelationships among aspects of clients’ functioning that were highlighted in the intervention.

Goldfried, Castonguay, Hayes, Drozd, and Shapiro (1997), who used the CSTF to code the therapeutic focus of cognitive-behavioral and psychodynamic-interpersonal therapists, were able to differentiate these orientations based on the in-session focus. For instance, it was found that psychodynamic therapists were more likely to focus on emotions than were cognitive therapists. Another study by Goldfried, Raue, and Castonguay (1998) compared master cognitive-behavioral and psychodynamic-interpersonal therapists’ tapes from significant sessions occurring within naturalistic therapy settings. The results indicated that, unlike sessions that were manual-driven, the therapeutic focus was generally similar across these two orientations, with interrater reliabilities (measured using ICC) averaging 0.89. This finding emphasizes similarities between
therapists of different orientations in terms of factors seen by them as being important within the session. Despite the seemingly large disparity in theory and underlying principles across orientations, this suggests the possibility of using a transtheoretical coding system to investigate the therapeutic focus.

The use of this common metric for investigating the therapeutic focus across theoretical orientations has the advantage of facilitating communication among researchers of different orientations. To facilitate such communication, a common language for case formulation—based on the CSTF—can allow clinicians to translate and clarify jargon-based conceptualizations specific to certain theories. As has been suggested by one of us (Goldfried, 1995), the vastly different ways therapists describe therapeutic phenomenon linguistically disconnects them from clearly understanding their colleagues from other orientations. Indeed, in discussing the communication problems of individuals using different paradigms, Kuhn noted that (1970) those “... who held incommensurate viewpoints [can] be thought of as members of different language communities and that their communication problems [can] be analyzed as problems of translation” (p. 175).

**The Causal Analysis and Synthesis of Events System**

Although the purpose of the CSTF was designed to address the research question, “What did therapists focus on in their interventions?” it became apparent that the coding system had clinical implications, allowing therapists to address the question, “What can I focus on in my sessions?” Thus, the transtheoretical system used for studying the therapeutic focus in a research context was modified for clinical case formulation purposes.

The Causal Analysis and Synthesis of Events (CASE) system identifies different aspects of a client’s functioning across situations into their component parts, recognizing commonly occurring patterns and synthesizing them into problem areas. This system organizes relevant client variables so they are functionally linked. The selection of treatment goals can then focus therapy on relevant problem areas and the variables maintaining them, so that specific interventions can be targeted toward these maintaining variables.

**Aspects of Client Functioning**

The accompanying figures illustrate each of the components of the CASE system. In this section, we will briefly describe each aspect of the client’s functioning that can be used for the formulation. First, we will discuss the components of intrapersonal functioning and provide brief examples of each (Fig. 1). Then, we will describe the importance of linking these components of functioning to provide an appropriate case formulation. We will also briefly discuss how this method can be used in an interpersonal context as well. To make the explanation of the CASE system’s components less abstract, we will illustrate them with the running example of a student (Selma) who is about to take a test.

**Situation.** To begin with, the situation described in the conceptualization is an external, environmental event that elicits some type of reaction in the client. The reaction can be in terms of any of the other aspects of the formulation (i.e., thought, emotion). In our example, the external situation for Selma is the announcement of an upcoming exam.

**Thought.** There are a number of different cognitions that can fall under the heading of “thoughts,” and during assessment the clinician should pay special attention to the specific category of thought the client exhibits.

**Expectations.** Expectations reflect personal predictions or assumptions about the future. Expectations may be about the self (e.g., “I expect that I’ll fail this test”) but can also be about other situations or people (e.g., “This test will be hard”; “Other people will do better than me”).

**Self-evaluation.** Self-evaluation is the process of rating oneself, and may or may not be a realistic reflection of the client’s true abilities and skills. Self-evaluation is a subjective process, and it can be either
positive or negative. In our example, Selma’s self-evaluation may be that she is not intelligent enough to pass the test.

Self-observation. Self-observation is the ability to step back and observe one’s functioning in a relatively objective manner. Many clients may not engage in self-observation during the assessment phase and instead only begin to objectively evaluate their behaviors as a result of therapeutic intervention. However, some clients do have the potential to spontaneously and objectively observe themselves, even during assessment. In our example, if Selma is able to engage in self-observation, she may realize that she knows the material that will be on the test but that she is nervous about it because of past difficulties in taking tests.

Other thoughts. Other thoughts may include issues related to perception or the assignment of responsibility for an event. Commonly, this category may include attributions about an event or the labeling of a situation. An attribution Selma may make about the test is that it will be difficult for her because she believes that the teacher wants to give the students a hard time.

Intention. The client’s intention regarding a behavior may be just as important to assess as the behavior itself. It is what the individual wants or needs in the particular situation. An intention differs from an expectation by virtue of being a more active and motivating desire. Importantly, the client may or may not be fully aware of his or her intentions, but it can still be included in formulation. Selma’s intention regarding this test, for example, is that she wants to do well.

Emotion. There are two aspects of emotion to be assessed. Subjective emotion includes what a client may “feel” internally (i.e., anger, fear, surprise). To get a clear idea of the client’s emotional reactions during assessment, ambiguous emotion words such as “upset” should be probed further (i.e., does “upset” mean “angry,” “sad,” or something else?). In our example, Selma may be feeling anxious about having to take this test.

On the other hand, a physical or physiological emotional response occurs when emotion is tied into bodily functioning rather than subjective mood. For instance, this may include muscle tension, an increase in pulse rate, or sweating palms. More generally, physiological affect can be translated as a physical feeling of tension or unease. Selma may feel her heart racing—a physical indication of her anxiety—when she thinks about the exam.

Action. Action may be conceptualized as any behavior in which the client engages. Actions are observable, and inaction or avoidance may also be conceptualized as an “action.” Selma’s response to the upcoming test is her action, which may involve procrastinating, rather than studying for the test.

The above description of Selma having to take an exam has been used to elucidate the different aspects of functioning involved in the CASE system. In order to conduct a case formulation the clinician needs to link these in a functional way. This is discussed in more detail in the section below.

Linking Components of the CASE System

In linking components of the CASE system functionally, the formulation may not proceed sequentially. Thus, each situation need not be immediately followed by a thought, and each action need not be immediately preceded by some type of emotion; the links should be made after careful consideration of the factors of the individual case. Another important point is that not all components of functioning need to be used in each formulation, and components can be used more than once if needed (e.g., in any given instance, the emotion may involve both anxiety and anger). In other words, the clinician needs to have a good sense of the antecedents and consequences of a client’s actions; the CASE system allows for some structure to the clinician’s interpretation while still allowing flexibility to characterize the specific case at hand.

As a way of narrowing the focus of the case formulation, the therapist begins formulation based on the client’s presenting problems. Here, Selma may have come to therapy concerned about test anxiety. The therapist may have asked the client to describe a prototypical example having to do with the identified problem, such as the “difficult test” described here. As the client describes the specific event or issue, the therapist implicitly uses the CASE system as a blueprint to obtain information about the ways in which the individual components of functioning relate to each other (e.g., how the client’s expectations are related to her emotions).

If the therapist questions the prototypicality of the specific event, then he or she may wish to probe for another event or series of events in the same class. For example, the therapist may question whether Selma has any degree of anxiety before taking tests she does not identify as “difficult,” whether the academic subject she is tested on affects her level of anxiety, and whether high levels of anxiety are elicited in Selma only during testing situations,
or whether this reaction generalizes to any evaluative situation (i.e., a job interview, meeting a significant other’s parents). In obtaining this information, the therapist can abstract from these specific situations to provide a more generalized formulation of the client’s difficulty with the identified problem (which may be revised as the therapist gains more information about the issue). The CASE formulation as well as the therapist’s knowledge of the client, the client’s goals, and the client’s capacity, can then be used to identify appropriate points of intervention and tailor a treatment plan for the client.

It should be kept in mind that the overarching goal is to be able to both analyze and synthesize client-reported events. Specifically, the therapist must be able to analyze the client’s reported events in a way that the components of intrapersonal functioning described here (situation, thought, etc.) are meaningfully used. Additionally, the therapist can focus on finding patterns in the client’s functioning across various situations and synthesize the underlying determinants of these patterns into a more comprehensive functional analysis of the client’s behavior. In other words, the CASE system can and should be used to make a causal analysis and synthesis of events.

**Using the CASE System to Conceptualize Interpersonal Issues**

The example above, using Selma, describes an intrapersonal issue (preparing for a difficult upcoming test). However, many problems stem from interpersonal transactions, in which case a client’s intrapersonal processes can be linked within the individual, but also to processes associated with the functioning of the other person. For a formulation involving another person, the client’s reaction may stem from or result in another person’s behavior during the interaction. Thus another’s action may be antecedent or consequent to a client’s own thoughts, intentions, emotions, and/or actions. Fig. 2 shows a blank case formulation guide for interpersonal case formulations.

To continue our example with Selma, let us suppose that the anxiety she felt when anticipating the test continued when she was actually in the testing situation. Since Selma was unable to appropriately cope with this stress, she got up and left the room abruptly without handing in her test. Here, a separate interpersonal case formulation may be used. Selma’s action could be the precipitant to her teacher’s reactions. For instance, her teacher may have thoughts about Selma’s behavior, perhaps attributing it to her being oppositional, which could cause her teacher to feel angry. Notably, including the details of another person’s unobservable functioning in this type of case formulation is likely to be based on speculation on the part of the therapist and/or client. However, this type of speculation is common in individual therapy, and the therapist must rely on his or her clinical experience, general knowledge of human behavior, and knowledge of the client, to make hypotheses about all the determinants of another person’s behavior.

As mentioned previously, this formulation method can be used to outline the antecedents and consequences of specific behaviors, but can also illustrate similarities in functioning across discrete situations, leading to a greater understanding of the client’s patterns within a class of situations. The CASE system is particularly helpful in case formulation as it allows the detection of both patterns and inconsistencies in behavior. Further, it provides a concrete, visual presentation of the client’s current functioning by specifying situational or interpersonal antecedents and then exploring the client’s cognitive, intentional, emotional, and behavioral responses. The use of this case formulation system is best illustrated in the clinical case—disguised for confidentiality—that follows.

### The Case

#### Identifying Data

Nelson is a 27-year-old Caucasian male who has recently entered medical school. He had earned a bachelor’s degree in biology and then returned to the workforce and worked as a research assistant in an oncology laboratory. For the past 9 months, Nelson has lived with his girlfriend of 2 years, Lisa who is a dental hygienist.
Nelson speaks to his father, Kirk (a retired mechanic), and his mother, Luann (a homemaker), relatively often, and reports having a very close relationship with both his parents and with his younger brothers, Ralph and Martin, both high school students.

**Presenting Problem**

Nelson self-referred for treatment, reporting a history of anxiety and depression that have become particularly exacerbated since he began college 10 years ago. He currently takes Zoloft but is concerned that his problems will become more pronounced and difficult to deal with in the medical school setting, which could adversely affect his progress in school.

Specifically, Nelson reports having always been very uncomfortable in public evaluative situations, such as when he is asked to answer a question in class, has a question for the professor, and even in social situations where he imagines others are evaluating his friendliness, hospitality, intelligence, and other qualities. He worries that people “realize” that he does not know what he is talking about, and he experiences bodily tension when he is anxious.

When he is in such a situation, he pays particularly close attention to signs of possible negative evaluation (i.e., negatively interpreting a brief silence that a professor has before answering a question Nelson asks). In these situations, Nelson has trouble concentrating for the rest of the class period because he finds himself ruminating and reanalyzing the possible negative implications of others’ verbal and nonverbal signals during interactions they have with him.

Nelson also finds that he often feels “blah”—withdrawal and anhedonia associated with the tension he feels during performance evaluation situations. Although he does not report feeling sadness or crying often, Nelson sometimes has trouble sleeping because he finds himself reanalyzing and trying to interpret past interactions with others.

Assessment measures include a Beck Depression Inventory (BDI-II) score of 37 (of 63), which indicates a high level of depressive symptomatology, and a Beck Anxiety Scale (BAI) score of 13 (of 63), reflecting mild levels of subjective and physiological tension. In addition, Nelson completed the Symptom Checklist-90-R (SCL-90-R) on which his scores were elevated (above a T-score of 63) on all nine clinical subscales, as well as the Global Severity Index, Positive Symptom Total, and Positive Symptom Distress Index subscales when compared to nonpatient adult male norms.

Based on the criteria required to make a formal clinical diagnosis using the *Diagnostic and Statistical Manual (DSM-IV-TR; American Psychiatric Association, 2000)*, Nelson meets criteria for a diagnosis of social phobia, generalized type. Although Nelson reports depression-related symptomatology based on his BDI-II score, he does not meet formal criteria for any depressive disorder. Specifically, Nelson meets only four of the diagnostic criteria for major depression. Nelson also does not meet formal criteria for dysthymia as he reports his depressive symptoms remitting for periods of 3 to 5 months (although his anxiety, according to his self-report, continues).

**Relevant History**

Nelson reports that he was always a shy child. He lived the first few years of his life in Cincinnati, Ohio, surrounded by his immediate and extended family. He reports having a close and positive relationship with his parents and with his younger twin brothers, Ralph and Martin, who are 8 years his junior. During his youth, his father, Kirk, who was an auto mechanic at the time, was very involved in Nelson’s life, and would coach his sports teams and take him to sporting events. His mother, Luann, was also very involved in Nelson’s life. He reports that she would spend time with him after school helping him with his homework, and was always supportive of his goals and ambitions. When he lived in Cincinnati, most of Nelson’s extended family lived in the vicinity. He remembers his parents having many guests and relatives over to the house, and remembering getting along with his aunts, uncles, and cousins. However, he does report feeling “shy” at first when these relatives would come over, even when he was quite young.

When Nelson was about 10 years old, his brothers Ralph and Martin were born. Despite the age difference, Nelson was very close to and protective of them. When speaking about his brothers, he gives examples of how he taught them to tie their shoelaces and how he would take them to the park when they were younger.

When he was in middle school, Nelson’s family moved to Oklahoma. He reports having felt quite lonely when he moved, because he had to leave his family and friends behind in Ohio and attend a new school. He made one close friend, Lenny, when he moved to Oklahoma, who was a middle school classmate. Through this friend, Nelson was introduced to a number of other potential friends and acquaintances. However, he began to have a pervasive feeling throughout his high school years that people were friendly with him and included him in activities only because of his ties with Lenny, and that he was incapable of making and keeping those friends on his own.

However, Nelson also describes making friends and feeling included in extracurricular activities, which he enjoyed a great deal. At times, he says he made many acquaintances in school, although he felt he had some trouble making close friends.

Nelson had decided to attend college in California. He reports having his first strong feelings of anxiety at this time. At the end of class one day, he struck up a conversation with an acquaintance who was describing
his plans for that night. Nelson realized he had not made any plans himself, and called his roommates, friends, and acquaintances to make plans. As he continued making these calls, he realized that most people already had plans, which caused him a great deal of anxiety. His throat started to tighten, he felt pressure in his chest, and had trouble breathing. Although he experienced discomfort, the situation did not qualify as a panic attack, and he reports his symptoms lasted for the rest of the night. He attributed this anxiety to feeling lonely and left out.

After this incident, he left school and returned home to Oklahoma to be with his family. He took a semester off and began to see a psychiatrist, who prescribed Zoloft. The next semester, he began school closer to home—in Louisiana. Unfortunately, due to financial difficulties, he had to leave this school and complete his schooling in Oklahoma.

He reports being unsure of a career path and consequently decided to work in a research laboratory, which he has done for 4 years. He recently decided to enter medical school, and took the MCAT with help from his girlfriend, Lisa, whom he met through mutual friends. He was accepted to medical school in the Northeast and decided to move in with Lisa.

He is currently in his first year of medical school and living with Lisa. He describes his relationship with her as very positive; he enjoys spending time with her and feels as though she understands him. However, he reports having trouble communicating his feelings to her, especially when he is feeling anxious, angry, or depressed. When Nelson is upset, he states he would like Lisa to know, and recognizes that she is quite perceptive of his mood states. However, he usually explicitly and repeatedly denies that anything is wrong, reporting that he does this because he fears she will “not say the right thing” and he will feel even worse. Sometimes he eventually explains his feelings to her, but other times he feels sheepish because he believes the issue is too small to talk to her about, so he does not explain his worries to her.

Nelson’s relationship with his family is still very close. He speaks to his parents and his brothers at least every week, states that his parents are very supportive of him, and feels that they just want him to be happy. He says that his parents still offer him financial assistance, but he has had trouble accepting this since college because it makes him feel dependent on them.

**Preliminary Case Formulation**

This case is particularly suited to the case formulation technique described here. To begin our formulation, we are interested in exploring the antecedents and consequences of his feelings of depression and anxiety, and will therefore examine in detail some of the intrapersonal and interpersonal factors related to the presenting problems. Fig. 3 graphically represents the case formulation. In order to clarify the admittedly complex visual formulation presented in Fig. 3, we have also included a textual description as a guide, where the numbers associated with each link in the text correspond to the numbered arrows on the figure.
1. Another’s action leads to Nelson’s self-evaluation. It seems that Nelson’s feelings of anxiety stem initially from performance-related events in academic (i.e., having to answer a question or take a test), and social (including work-related) areas. These instances are typically precipitated by the actions of others (i.e., a professor asks the class a question). In these performance situations, Nelson’s self-evaluation is, “I am not as competent (smart, interesting) as others.”

2. Nelson’s self-evaluation leads to his expectation. His negative self-evaluation leads to the expectation that he will fail at the task at hand.

3. 3a, 3b. Nelson’s expectation leads to feelings of subjective and physiological anxiety. In turn, this expectation leads to fear, anxiety, and muscle tension, reflecting both subjective and physiological emotional arousal.

4. Nelson’s anxiety leads to a self-observation. It seems that for Nelson, his feelings of subjective and physiological anxiety lead to the self-observation that his fear response is an overreaction (“This is all in my head, there is nothing to fear”). As noted earlier, self-observation is not a common spontaneous response that an individual has before therapeutic intervention, which makes Nelson’s case somewhat unique in this respect.

5. Nelson’s self-observation leads to his intention. Because Nelson has some insight into the possibility that his high level of anxiety may not be an appropriate response for this situation, his intention is to respond to the professor’s question.

6. Nelson’s intention leads to an action. In order to translate his intention into a behavior, he attempts to face his fear by answering the question.

7. Nelson’s action leads to the professor’s attribution. On hearing Nelson’s response to the question, the professor may attribute his response as a reflection of Nelson’s desire to participate in class. As indicated earlier, the formulation of another person’s—the professor’s—unobservable functioning (e.g., thoughts) is of necessity speculative in the context of individual therapy.

8. The professor’s attribution leads to an intention. The professor may then come to a decision point; his intention may be either to continue on with the lecture or look for other responses to his question.

9. The professor’s intention leads to an action. At times, a certain amount of ambiguity exists in interpreting the other person’s actions. For instance, the professor may pause after Nelson speaks in order to decide what to do next (i.e., ask for more responses, continue with the lecture, pose another question), but the reasons for his pausing may be open to interpretation by an external observer.

10. Nelson interprets the professor’s action. Nelson attributes the professor’s ambiguous action as being caused by his own inadequacy. For instance, he may think something along the lines of, “What I said was so stupid that he doesn’t even know how to respond to my question!”

11. Nelson’s interpretation leads to a self-evaluation. Nelson goes on to interpret the other person’s ambiguous action as illustrating how his performance does not meet up to his standards, and he relates his labeling of the other person’s response to his own global performance and competence (i.e., “I am an incompetent person”).

12. 12a, 12b Nelson’s self-evaluation leads to subjective and physiological emotional arousal. Nelson has a strong emotional response to his negative self-evaluation. Specifically, he feels anxiety, fear, and sadness, as well as tension throughout his whole body because he feels that he has let himself down.

13. Nelson’s emotional reaction leads to action. At this point, Nelson feels as though his attempt to take a risk and face his fear has made him feel worse about himself, as he feels he is nowhere near the high standards he sets for himself, and because he feels sadness and fear. As a result, he withdraws from the interaction.

A Vicious Cycle

In its present form, Nelson’s problems with his professor (or other individuals) may begin a self-perpetuating cycle or a self-fulfilling prophecy (akin to the concept of cyclical psychodynamics; Wachtel, 1982). Fig. 4 describes further steps in the current formulation, illustrating the continuing negative cycle perpetuated by Nelson’s behaviors.

14. Nelson’s action leads to professor’s attribution. When Nelson withdraws from the interaction, the professor may attribute this to Nelson’s lack of interest in the subject matter or, more personally, disinterest in the professor (i.e., “He’s not participating because he thinks I’m boring”).

15. Professor’s attribution leads to professor’s expectation. Because the professor may interpret Nelson’s silence and withdrawal as a response to the professor’s teaching style or personality (both relatively stable characteristics), he expects that Nelson will be unresponsive if called upon in the future.

16. Professor’s expectation leads to professor’s action. Expecting Nelson to withdraw from future interactions
with the professor, the professor does not call on Nelson.

17. Nelson labels the professor’s action. Nelson notices that the professor is not calling on him any longer. Instead of attributing this to his own lack of participation in the class discussion, Nelson sees this as confirmation that he is inadequate in this situation. [This step parallels Step 10.]

18. Nelson’s label leads to a self-evaluation. Nelson labels his failure in being an “adequate” student as confirmation of his own incompetence, and uses this incident as an example of his own global incompetence. [This step parallels Step 11.]

19. 19a, 19b. Nelson’s self-evaluation leads to subjective and physiological emotional arousal. Because Nelson now feels he has “proof” to support his negative self-evaluation, this exacerbates his feelings of anxiety, fear, sadness, and physical tension. [This step parallels Steps 12a, 12b.]

20. Nelson’s emotional arousal leads to an action. Because Nelson feels he has received evidence that he is incompetent, his anxiety has increased. This leads to further withdrawal. Here, his action is inaction—withdrawal further from the situation, and perpetuating the cycle. [This step parallels Step 13.]

Client’s Strengths

Although the case formulation suggests that Nelson suffers from distress based on his perceptions of interactions with others and of himself, it is clear from the introduction to this case that Nelson also presents with a number of strengths that are likely to improve his outcome. To begin with, he reports that his parents, siblings, and partner are all significant sources of emotional and financial support. Additionally, he is currently able to function well enough, despite his anxiety and depression, to have continued social support, engage in meaningful relationships with others, and to set (and work toward) his professional and academic goals. Further, Nelson is quite motivated by his discomfort and desire for change and improvement. He is also able to engage in self-observation, which is an important step toward determining whether certain internal reactions are rational or not in various situations. Finally, Nelson does not seem to have any gross skill deficits that may elicit negative behaviors from others. Rather, he is a pleasant, humorous, and well-spoken young man.

Identified Treatment Goals

Based on Nelson’s self-report and the therapist’s observations of his behaviors, and in conjunction with Nelson’s reports of what he would like to achieve in therapy, they agreed on two interrelated treatment goals: to reduce Nelson’s anxiety in social situations (especially with new acquaintances) and in academic situations.

We chose to describe the case formulation in the context of Nelson’s reaction in a specific class-related

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**Figure 4. The Cyclical Nature of Nelson’s Case Formulation.**
situation. However, this specific event was an instance of a more general pattern, and the formulation generalized to Nelson’s experience in his classes throughout the semester.

Because Nelson’s anxiety problems seem to cluster into two domains (social and academic), and in fact have different treatment implications, the therapist’s formulation focuses on each of these areas separately. For the sake of clarity and brevity, this paper focuses solely on the treatment goal of reducing Nelson’s anxiety in the academic domain, but it should be noted that a separate case formulation was also created to interpret his anxiety in the social domain. The formulation related to Nelson’s anxiety in the social domain is structurally different from the formulation presented here and leads to different points of intervention.

Points of Intervention and Progress by Session 15

One of the strengths of this type of case formulation is that it clearly highlights possible points of intervention that can be carried out from within a number of different orientations. Specific intervention methods will vary as a function of orientation. Although the interventions used here are reflective of a cognitive-behavioral orientation, therapists of other orientations may be able to come up with interventions that work within the framework reflected in his or her orientation.

Nonetheless, the intervention points described here can be linked directly to the case formulation presented in Fig. 3. Nelson and the therapist together decided to place the therapeutic focus on three portions of the formulation (outlined below) so as to reduce his symptoms and improve his functioning. For instance, because the conceptualization suggests that Nelson’s depressive mood is caused by maladaptive cognitions (i.e., labeling, self-evaluation) and by his anxiety, we targeted these areas first.

Therapeutic Focus 1. In Nelson’s particular case, it seemed most important to reduce his high symptom level by first focusing on reducing his experience of situational anxiety. For example, it was reasoned that it would be helpful for Nelson to learn to recognize and reduce feelings of physiological and subjective emotion during the situation. This directly targets links 3a, 3b, 12a, and 12b in the case formulation described in Fig. 3. This could be done by using relaxation training techniques. Relaxation training could help decrease Nelson’s anxiety-related feelings of physiological arousal, and at the same time could allow him to feel more control (even if by simply allowing him to feel more control over his body’s reaction to stress). Nelson was introduced to relaxation techniques during Session 5, by undergoing a relaxation induction within the session. He was instructed to attempt relaxation training between sessions and to record his subjective feelings of relaxation (using a 0-to-100 scale to identify his subjective feelings of stress, where the higher end of the scale reflects greater tension). This in-session induction was audio-taped, and Nelson was asked to use the tape to practice relaxation between sessions. His average pre-post self-reported rating decreased from 55 to 23 during Session 6, and 42 to 35 (due to an outlier) during Session 8.

Therapeutic Focus 2. A second focus of the intervention was to decrease the labeling of others’ thoughts (“He’s pausing because my answer was bad”), and to stop linking this to his self-evaluation (“I am incompetent”). This focus follows from links 10 and 11 in Fig. 3. The intention was to help Nelson recognize and reduce some of his automatic, dysfunctional cognitions, particularly his tendencies to “mind-read” and make attributions about others’ intentions from their ambiguous behavior—particularly when these attributions lead to his global, stable, and internal negative view of himself. Cognitive restructuring was used to target such automatic negative processes by using self-observation to identify these negative thoughts and then to challenge and replace them with more adaptive and realistic ways of interpreting the situation. This was begun after Nelson began relaxation training, at Session 6.

Therapeutic Focus 3. The final focus was on the link between Nelson’s self-evaluation (“I am not as competent as others”) and the expectation this leads to (“I’ll fail at this”), as seen in link 2 of Fig. 3. The intention was to weaken the relationship between Nelson’s expectations and his self-evaluations, decreasing his black-and-white perfectionist thinking and reducing the degree to which he catastrophizes about events. This was done using cognitive restructuring to identify negative, irrational, automatic thoughts and then to learn how to challenge these thoughts and replace them with more adaptive alternatives. This intervention occurred at the same time as Therapeutic Focus 2, as they include overlapping concepts related to cognitive restructuring. By Session 15, his BAI score had decreased from 13 to 3, reflecting a very mild level of anxiety. Additionally, his BDI score had decreased from 38 to 11, indicating a substantial decrease in depressive symptomatology.

It is clear from the case description that the CASE method of formulation directly informed the targeted points of intervention. However, it is ultimately up to the clinician to decide on the specific treatments with which to intervene. We would suggest that the CASE formulation system can work in accordance with empirically supported treatments (ESTs), and allows for formulations that are consistent with empirically based conceptualizations of clinical problems (e.g., expectations and concerns regarding the evaluation of others mediate his level of social anxiety). In the example of Nelson’s case presented here, evidence-based interventions for treating anxiety were used. Based on a meta-analysis of 24 treatment studies (Gould, Buckminster, Pollack, Otto, & Yap, 1997),
cognitive-behavior therapy is an efficacious treatment for social phobia. Additionally, research suggests that cognitive therapy is indicated for most types of depression (Hollon, Thase, & Markowitz, 2002).

The astute reader may wonder about treatment goals for other issues implied in the assessment information (e.g., Nelson’s anxiety in social interactions, his lack of constructive communication with Marge, and his elevations of SCL-90 subscales that are not directly related to depression or anxiety). It is possible that focusing on the three areas outlined here would improve Nelson’s subjective and objective functioning in some of the other areas with which he has presented. One of the great advantages of therapy is its flexibility. In this situation, for instance, the clinician may decide to expand treatment planning to directly intervene in additional areas relevant to Nelson’s functioning if indirect intervention for his anxiety and cognitions do not ameliorate some of these other situations.

Future Directions

The above example illustrates the utility of the CASE formulation method both in terms of assessment and treatment of clinical issues. Although this formulation technique is based on a long history of psychological theory, beginning with the stimulus → response relationship, the presently described formulation method itself is more comprehensive, and is not specific to only a cognitive-behavioral orientation.

Future research on the CASE system should include assessment of reliability (particularly interrater reliability). Demonstrating that various therapists can come to similar conclusions about a specific case when given certain information illustrates this formulation method’s potential for creating a common language for case formulation. Data presented about the reliability of the CSTF, on which the CASE system was based, suggests adequate levels of agreement between raters (intraclass correlations were generally greater than 0.60; Goldfried et al., 1997); an important future direction would be to verify that this extends to the CASE formulation method as well.

One of the strengths of the case formulation method presented in this article is its transtheoretical training applicability. For instance, conceptualization using this framework incorporates emotions, behaviors, cognitions, intentions, and relational aspects of functioning. Eells and colleagues recently conducted an empirical study about case formulation quality as a function of therapist experience (Eells, Lombart, Kendjelic, Turner, & Lucas, 2005). When comparing novice, experienced, and expert therapists, the results suggested that learning a systematic case formulation method showed the largest effect size (r=0.55) when differentiating experienced and expert therapists. Based on these results, we would suggest that learning a systematic case formulation method may be particularly helpful in training therapists, and the CASE method described here is such a theoretically neutral formulation method that it can be used across various theoretical orientations.

Although a more exhaustive illustration of this case formulation method using various theoretical orientations as a starting point is beyond the scope of this paper, we are interested in the types of formulations and direct treatment goals that clinicians from other areas would suggest by using the CASE method. We believe that beginning such a dialogue would be helpful in creating a common language for case formulation. In the spirit of opening up the lines of communication across theoretical orientations, we invite interested clinicians from various backgrounds to use the CASE formulation method within their framework to help link case history, case formulation, and intervention goals, either to provide alternative conceptualizations of the case described here, or to apply this formulation method to their own therapy cases. As suggested by Kuhn (1970), a common language for dialogue across orientations might allow “... some members of each community ... [to] ... begin vicariously to understand how a statement previously opaque could seem an explanation to members of the opposing group” (Kuhn, 1970, p. 203). Using the CASE formulation system might serve to facilitate such communication across therapy orientations.

References


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