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ANALYSIS OF THE THERAPIST'S VERBAL BEHAVIOR DURING COGNITIVE RESTRUCTURING DEBATES. A CASE STUDY

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ANALYSIS OF THE THERAPIST'S VERBAL BEHAVIOR DURING COGNITIVE RESTRUCTURING DEBATES. A CASE STUDY

Abstract

This paper reports a case study in which we analyze the application of the debate technique in cognitive restructuring so as to obtain a deeper understanding of the relevant behavioral processes. We examined the recordings of a clinical case of low mood disorder and selected five debates that dealt with the same problem. Following their transcription, we analyzed the client-therapist verbal interaction. Results show changes in the verbalizations of both parties as the treatment progresses. We propose a new explanation of these changes, constituting a step forward in the theoretical explanation of the debate technique within the cognitive-behavioral approach.

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Introduction

Cognitive techniques have been classified in numerous ways in the cognitive-behavioral approach. One of the most widely used classification is that of Mahoney and Arnkoff (1978) who distinguished between three types of techniques: cognitive restructuring, training in coping skills, and problem solving. In this paper we focus on the first type, known collectively as *cognitive restructuring techniques*. These techniques are intended to identify and modify the client's maladaptive cognitions, highlighting the negative impact they have on behavior and emotions. They constitute a key element in Cognitive Therapy (Beck, Rush, Shaw & Emery, 1979) and Rational Emotive Therapy (Ellis, 1962; Ellis & Grieger, 1977). Other authors have proposed variations of cognitive restructuring that do not make substantially different contributions, such as systematic rational restructuring (Goldfried & Goldfried, 1986). These variations all form part of a broad group of techniques that have one fundamental point in common: the use of debate. Debating sometimes has been referred to as *cognitive restructuring*, a term which actually encompasses this whole group of cognitive techniques.

Beck defined Cognitive Therapy as an active, directive and structured procedure of limited duration that is used to deal with different psychiatric disturbances by changing cognitive schemas and errors (arbitrary inference, selective abstraction, overgeneralization, magnification and minimization, personalization, and absolutist and dichotomous thinking). To achieve this goal a wide range of both behavioral and cognitive techniques can be used, depending on Beck's proposed classification. To examine and test the reality of automatic thoughts, a commonly used procedure is to submit to Socratic questioning the empirical evidence that could sustain such thoughts. A variety of strategies have been proposed for this Socratic dialogue or thought-debating method: reattribution, looking for alternative interpretations and solutions, questioning the evidence, using the three-column technique, and

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so on. The client's inappropriate assumptions are modified throughout, using the same procedures as for modifying automatic thoughts.

The central notions in Ellis's Rational Emotive Therapy are that thoughts affect human emotion as well as behavior and that irrational beliefs are mainly responsible for a wide range of disorders. There are basically four types of irrational beliefs ("dire necessity", "feeling awful", "cannot stand something", "self-condemnation"). The therapeutic process is defined as an experience of cognitive-emotional retraining, to which end Rational Emotive Therapy commonly uses a wide range of techniques classified as cognitive, emotive, or behavioral. Here the debating of irrational beliefs is the basic technique to be used (although there may be others). It involves the logico-empirical method of questioning beliefs, critically examining them, debating propositions in a scientific fashion, evaluating and disputing irrational beliefs, and distinguishing between logical and illogical thinking as well as between semantic definition and re-definition.

Beck's and Ellis's important theoretical and clinical contributions are undeniable. However, by contrast with other behavior modification techniques based on a long experimental tradition, in this case little experimental research has been conducted on the underlying learning processes. Whereas we can explain Systematic Desensitization (Wolpe, 1958) in terms of counter-conditioning and reciprocal inhibition, for example, the same cannot be said for the debate technique. Furthermore, existing explanations of the debate technique often have been based on constructs with little operational meaning ("logical error," "dysfunctional schema") and on circular explanations (Pérez-Álvarez, 1996; Salzinger, 1992). As Haaga and Davison (1993) pointed out, the very notion of an irrational belief seems tautological: Rational Emotive Therapy defines a belief as "irrational" because it results in disturbances while the latter are said to be present because of the irrational belief. An additional problem for this type of intervention is the absence of systematic guidelines for

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implementation. Different texts on CR give general advice on the debate technique, but one can assume that therapists will use different procedures to change their clients' beliefs, as there are no systematic guidelines tailored to each case.

Like other cognitive techniques, debating has been used and continues to be widely used by clinicians. Numerous publications document the empirical effectiveness of cognitive techniques for a wide range of psychological problems (Chambless, Baker, et al., 1998; Chambless & Ollendick, 2001; Chambless, Sanderson, et al., 1996; DeRubeis & Crits-Christoph, 1998; Jiménez-Murcia et al., 2007). However, process research in cognitive techniques can be characterized by a paucity of studies and by theoretical disarray. Some research comes from theoretical approaches that are not behavioral and/or employ methodologies different from the one we are proposing. For example, some studies have analyzed the components in treatment packages (Hofmann, Schulz, Meuret, Moscovitch & Suvak, M., 2006; Smits, Powers, Cho & Telch, 2004; Zettle & Hayes, 1987) or compared the processes involved in therapies of different orientations by using instruments built for this effect, such as the *Psychotherapy Process Q-Set* or the *Comprehensive Psychotherapy Intervention Rating Scale* (Ablon & Jones, 1999; Trijsburg & Perry, 2004). Other studies have analyzed the content of client-therapist verbalizations (Stiles & Shapiro, 1995) or analyzed cognitive techniques, emphasizing therapeutic work within each session as well as the therapeutic relation (Kanter, Schildcrout & Kohlenberg, 2005). Some have even developed instruments such as the *Cognitive Therapy Scale* (Young & Beck, 1980) and the *Collaborative Study Psychotherapy Rating Scale* (Hollon et al., 1988) to measure the competence of therapists and their ability to adapt to the components specified in the application of cognitive therapy or other forms of psychotherapy. The scarcity of process studies is particularly noticeable in this debate, leaving numerous questions unanswered: Do all therapists actually do the same thing? Where does the success of this technique lie? What

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is it that really works when the technique is applied? Is there anything qualitatively and/or quantitatively different regarding the processes effective in different techniques?

The present paper does not aim at answering all of these questions. Given the preliminary status of this line of research, our aim is rather to further our understanding of the processes that underlie the debate technique and thereby promote changes in the client's verbalizations. We start from a theoretical behavioral approach, according to which changes in "irrational beliefs" or "cognitive schemas" are understood as changes in the person's verbalizations, from less adaptive to more adaptive ones. We could go further and postulate, following Poppen (1989) and Martin and Pear (2007), that restructuring is a procedure for modifying erroneous, self-imposed rules. Poppen (1989) argued that debating is a verbal procedure which features shaping and reinforcement processes through which the therapist manages to change the verbal rule(s) that he or she has identified in the patient. Punishment processes also occur, because patients have to explain why they maintain erroneous beliefs and the ensuing challenges from the therapist's side may function as punishing events. Meanwhile the therapist teaches the patient to make discriminations and individual statements about the events that happen, instead of simplistic, all-or-none formulations. That is, patients are provided with new rules in order to achieve sharper analyses of existing contingencies instead of the over-generalizations that constituted their previous verbal rules. Without entering the controversies that surround the concept of rule-governed behavior (e.g., Schlinger, 1990) and without considering this term as an explanation, rather than a description, of behavior, we assume that this perspective could be well-suited to analyzing the debate technique. Restructuring is closely tied to a person's language and, accordingly, to the classical and operant conditioning processes involved in learning and development (e.g., Skinner, 1957; Staats, 1967). Could the same conditioning processes lie at the core of psychological change through Socratic questioning, or are other processes involved? To

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answer this question, we draw on previous proposals that address the clinical changes underlying the therapeutic process, such as the pioneering work of Murray (1956) and Truax (1966), the unpublished works of Willard Day's team at Reno University in the 1960s *(Reno Methodology)*, as well as the approach of Hamilton (1988), Rosenfarb (1992), and Follette, Naugle and Callaghan (1996), who conceive of therapeutic change as the shaping of new behaviors through contingencies that obtain in the therapeutic relation. We also take note of the contributions from the contextual approach in clinical behavior analysis, which has developed therapeutic approaches such as Functional Analytic Psychotherapy (Kohlenberg & Tsai, 1991), Acceptance and Commitment Therapy (Hayes, Strosahl & Wilson, 1999), and Dialectical Behavior Therapy (Linehan, 1993), all of which emphasize that language during the clinical session has the status of clinically relevant behavior, both as an instance of the clinical problem and as an opportunity for therapy (Pérez-Álvarez, 1996).

Previous work by our research group has involved the study of processes that underlie the debate technique. We have explored general models for explaining this technique, based on the systematic observation of several clinical sessions with different clients and therapists (Froján, Calero, & Montaño, 2007), using the *Observer XT* software instrument. Starting from this work, we intend to go one step further with the detailed study of all the debates bearing on a single topic that arose during the treatment of a clinical case. To this end, the sequences of interaction between the therapist and client will be analyzed one by one, with special emphasis on the therapist's verbal behavior throughout the course of the treatment and on the client's verbalizations/cognitions that the therapist sets as targets for change, studying the possible modifications that occur in the application of the technique along sessions. In this case study, we felt that literal transcriptions of the debates were more suitable than using the

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software, both with respect to the analysis of the therapist-client interaction and with respect to the study of specific verbalizations/cognitions[1] that arose in therapy.

Method

Sample

We observed and coded five fragments of conversation taken from our recordings of four different clinical sessions with the same client. The fragments lasted a total of 37 minutes 21 seconds, their average length being 7 minutes 28 seconds. The longest fragment lasted 13 minutes 31 seconds, while the shortest lasted 1 minute 9 seconds.

The therapist who took part in the study was a behavioral psychologist with 20 years of clinical experience. She worked at a private psychological clinic, *Instituto Terapeútico de Madrid*. The client was a 29-year-old woman attending counseling for a problem of low mood. Among other techniques, cognitive restructuring was applied in several areas where the client indicated problems, although this study solely selected the verbalizations that were related to her low self-esteem in the workplace. While the speech of both client and therapist could be heard in the recordings, only the therapist was visible. The client always had her back to the camera to protect confidentiality as far as possible. Table 1 specifies the sessions from which the fragments were taken and their length.

PLEASE, TABLE 1 APROXIMATELY HERE

Variables

Two variables were analyzed in this study, the verbal interaction between therapist and client, and the client's verbalizations/cognitions that were established as targets for debate. Concerning the verbal interaction between therapist and client, the verbal behavior of the therapist was categorized in seven functions (see Table 2), based on basic behavioral operations (Catania, 1992) adjusted to the clinical setting. This system of categories was

[1] The terms "verbalization" and "cognition" are understood to be equivalent throughout this paper because, from a behavioral approach, the only way to gain access to a person's cognitions is through self-report, in other words, through his or her verbalizations.

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developed earlier by our research group and has been used in previous studies (Froján, Calero, & Montaño, 2007; Froján, Montaño, & Calero, 2007). Three independent observers took part in the development of the coding system, observing several sessions and discussing disagreements over the basic categories. The definitions of the proposed functions were gradually modified and a set of agreements was worked out to help the observers decide how to categorize verbalizations (Froján, Calero, Montaño, & Garzón, 2006). The inter-judge reliability of this coding system was evaluated by calculating Cohen's Kappa index with the *Observer XT 7.0* program (Grieco, Loijens, Zimmerman & Spink, 2007), using a one-second tolerance window ($k_{O1\text{-}O2} = 0.72$, $p < .001$; $k_{O1\text{-}O3} = 0.74$, $p < .001$; $k_{O2\text{-}O3} = 0.68$, $p < .001$). According to Bakeman, Quera, McArthur, and Robinson (1997), these Kappa values indicate a high level of observer precision for an 8-category system where the variability among category probabilities is high.

The system of categories was adjusted slightly for its use in the debate technique. Specifically, the *informative* and *motivational* functions (by which we meant the verbalizations of the psychologist aimed at informing or motivating the client) were considered as preparation for the debate. Aside from this, the "others" category was not used.

PLEASE, TABLE 2 APROXIMATELY HERE

Apart from the R (response) function, the functions of the client's verbal behavior were not analyzed in this study, because we considered the therapist at any moment as the member of the dyad in charge of the interaction. Thus, in the three-term sequence S (stimulus) - R (response) - C (consequence), the terms S and C always referred to the therapist's verbalizations, whereas the term R referred to the client's verbalizations preceded and followed by the therapist's behaviors. In summary, our study focused on changes in the therapist's client-directed verbalizations as the debate evolved, leaving a detailed analysis of the contents of the client's verbalizations for future studies.

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Concerning the client's verbalizations/cognitions that were established as targets for debate, we focused at any moment on the client's verbalizations that the psychologist challenged (analyzing primarily the contents of the therapist's verbalizations) and on the type of strategy followed by the therapist to achieve restructuring (e.g., what type of questions did she ask? did she provide information? etc.).

Procedure

The first step was to contact the clinic and obtain people's approval. Both client and therapist gave their formal consent for the sessions to be recorded and used for research purposes. This procedure fully complied with the requirements of the Research Ethics Committee of our university (*Universidad Autónoma de Madrid*). The sessions were then recorded on closed circuit, with the camera partly hidden so as to interfere with therapy as little as possible. Subsequently one of the authors, a psychologist specializing in behavior therapy, observed the 16 sessions and identified 14 fragments of the recorded sessions which, based on a study guide written by our research group, were considered to involve the debate technique (Froján, Calero, & Montaño, 2006). They were all taken from sessions that came after the functional analyses had been explained to the client. To avoid possible errors, the correct identification of the debate technique was then confirmed with the case therapist who observed all of the selected fragments. The 14 fragments were studied, analyzing the topics under discussion and identifying basically three of them: the client's obligation to take care of a relative, her ex-partner's indifference towards her, and her low self-esteem in the workplace. From these three topics, the last one was selected for analysis because it was the object of most debating throughout therapy. The five debate fragments that involved this topic were selected and literal transcriptions were made[2].

[2] Due to space limitations, only a small part of the transcriptions have been included as examples in the text and tables. However, we will gladly provide the full transcriptions to any reader who requests them.

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In the second stage of this study, two of the authors, both highly trained in using the proposed system for categorizing the therapist's verbal behavior, coded the five debate fragments and discussed the differences found until agreement was reached. The results were then analyzed in detail, paying special attention to the changes occurring in the fragments of debate as the restructuring and treatment of the topic progressed. Specifically, the transcriptions were analyzed on three levels: firstly, the analysis concentrated on the three-term sequences, S-R-C; secondly, the client's verbalizations/cognitions acted upon by the therapist were analyzed along with the strategies used by the therapist to challenge them; thirdly, the analysis focused on the moments in which the therapist changed the target of debate (that is, the client's target verbalization) or the debating strategy. The frequency of the different functions of the therapist's verbal behavior was calculated for each debate.

Results

We will now present the three levels of analysis outlined in the previous section, explaining and illustrating the four types of therapist-client interaction sequences which were found in the debate segments. We also include a brief summary of the target verbalizations that were dealt with through the five debate segments and the strategies used to this effect, and we analyze the sequences present in the therapist-client interaction when the target verbalization or debating strategy changed. Aside from this, we present a summary table with the frequency of each of the functions of the therapist's verbal behavior in each segment.

PLEASE, TABLE 3 APROXIMATELY HERE

The S-R-C sequences found in the client-therapist interaction during the debates basically fell into four types. In the first type, the therapist emitted a verbalization that evoked a response from the client. For instance, the therapist asked for information or made a statement, and the client replied with a relevant comment, the latter not being followed by any specific consequence apart from another question on the same topic. As show in Table 3, an

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example of this type of sequence occurred in Debate 4 (Example 1), when the psychologist asked the client if she thought that someone who was above the rest was "exceptional" (discriminative function); after the client's response, the therapist did not emit any reinforcing or punishing function but simply asked another question ("Are you above the rest?", discriminative function). The second type of sequence differed from the previous one in that the therapist added a verbalization that reinforced what the client just said. For example, in Debate 5 (Table 3, Example 4), the psychologist encouraged the client to repeat a statement to herself and explained that this was appropriate, to which the client answered "Yes" and the psychologist emitted a reinforcing verbalization, "Good". In the third type of sequence, instead of reinforcing what the client said, the therapist emitted a verbalization with a punishing function. Thus, in Example 6 (Table 3, Debate 2), in response to one of the client's maladaptive responses the psychologist emitted a verbalization with a punishing function, namely, "You don't know much about life". A fourth type of sequence involved any of the previous sequence types, preceded by a preparatory verbalization of the psychologist with an informative or motivational function, or with a instructional function. For example, before asking something to her client, the psychologist supplied relevant information. This is illustrated in the information that precedes the discriminative function in a segment of Debate 4 (Table 3, Example 7): "One can't use the word "exceptional" for everybody because then the word would be meaningless", after which the normal sequence continues: discriminative function, response of the client, and another discriminative function. Table 3 includes these and other examples of each type of sequence taken from different segments of the debates.

These four types of sequences followed one another to produce the dialogue between therapist and client during the application of the debate technique. Through all five segments, instances can be clearly distinguished in which all of the therapeutic objectives focused on the client's claims of being worthless in the work place. The verbalizations set by the therapist as

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targets for debate, along with the strategies used to this end, are presented schematically in Table 4.

PLEASE, TABLE 4 APROXIMATELY HERE

As the table shows, the debating process started with the therapist announcing the final target verbalization, namely, "*I am a successful woman*"; the strategy in this case was to give the client information on her accomplishments. The psychologist repeated the same objective in Debate 5 (see Table 4), again with the same strategy. Meanwhile, in segments 2, 3 and 4 the therapist gradually brought up more complex objectives (verbalizations) to debate: "My behavior, in general, is valuable" (Debate 2), "My behavior at work is valuable" (Debate 2), "At work I rank at the top" (Debate 3), "My behavior at work is valuable" (Debate 4), "I am above average in my work" (Debate 4), "I am exceptional in my work" (Debate 4). As the summary in Table 4 shows, the debating strategies used by the psychologist in these intermediate segments consisted mainly of questioning the client about the empirical validity of her target verbalizations. That is, the therapist asked the client about possible proofs of her worth in the workplace, of her being better than her colleagues, and so on. In some of these cases (see the debating strategies used in segments 3 and 4), the psychologist used information that the client gathered from her assignments outside the sessions, such as asking her colleagues and supervisor about how she performed at work. In one case (Debate 2), the psychologist resorted to the strategy of providing extensive information about the learning of particular behaviors, which was useful to carry on the debate. Finally, in Debate 4 we can discern another type of strategy, consisting of questions to evaluate the client's grasp of words such as "exceptional" or "special" that she was using throughout the debate. In this case, the therapist asked questions such as "Do you know what the word 'exceptional' means?" and, in case of doubt, gave explanations to the client so as to make her realize that the word could apply to her behavior. Table 5 presents a more extensive analysis of the different parts of a

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debate (Debate 3), including all the relevant types of S-R-C sequences and some examples of dialogues. This table also shows examples of the strategy of evaluating the empirical evidence for or against a verbalization. Here the therapist supplies information about the appraisal of workers in a company ("Each person is different, but with respect to criteria of efficiency and performance, or appraisal, people do not end up all equal. Some rank higher than others. That's the way it is."). The therapist then asks the client whether she thinks she is part of the people who are considered good at their job ("So, face it, are you one of those who are good or one of those who are bad at what they do?", discriminative function). When feeling that the client does not reply adequately, the therapist repeats the question.

PLEASE, TABLE 5 APROXIMATELY HERE

From our analysis of moments of change in the targeted verbalizations or debate strategies, we identify three different ways in which the therapist directs the changes: the objective is not met, the therapist punishes (or does not reinforce) the client's verbal behavior, and a change is made; the therapist's partial or final objective is met, reinforcement may be delivered, and a change is made to confirm what has been achieved or move on with the therapy; the client changes her topic of conversation and the therapist engages in the debate for a while, digressing from the strategy she was following. The most frequent type of change was the first, which occurred 13 times (see Example 1 in Table 6), followed by the second, which occurred 6 times (see Example 2 in Table 6). The least frequent was the third type, which occurred only once in the five segments of debate (see Example 3 in Table 6).

PLEASE, TABLE 6 APROXIMATELY HERE

Table 7 shows the frequency of occurrence of the different functions of the therapist's verbal behavior in the debate technique of this case study. The table presents the absolute frequencies and percentages of the different functions in relation to the therapist's total number of interventions in each segment of debate.

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Discussion

Before discussing our results, we would like to relate them to a question that has been debated extensively in the associated literature, which is whether behavioral components are actually responsible for the success of what is known as cognitive therapy (or for the success of the cognitive part of cognitive-behavioral therapy). This is what authors such as Dimidjian et al. (2006) and Pérez-Álvarez (2007) argue. They find that comparing both interventions separately reveals the superiority of the purely behavioral approaches. Like these authors, we believe that more work is needed to shed light on this question. Highlighting the importance of behavioral components, however, does not imply forgetting the cognitive/verbal aspects. Indeed, our proposal focuses on this second part. Clearly, the fundamental role played by "behavioral activities" in cognitive-behavioral therapy should not be overlooked. It is equally important, however, to bear in mind what has traditionally been referred to as "the cognitive part" of this therapy, namely, the activity of debating, which may be better explained in behavioral terms. The latter point is essential, because the therapist's achieving a better understanding of what he or she is applying, of why changes occur and of what produces changes in the client's verbalizations as the debate progresses, could undoubtedly improve clinical effectiveness. Thus, from our analysis of the series of verbalizations that the therapist was establishing along the debates, and from our study of when the debating strategies or therapeutic objectives changed, as well as focusing on the S-R-C sequences we identified, we may conclude in this case that the change of verbalizations throughout the treatment, or *cognitive restructuring*, corresponds to a shaping procedure in which the client changes from less to more adaptive verbalizations. This explanation is consistent with Poppen's (1989) proposal. Shaping can be defined as the development of new behavior through the reinforcement and extinction of successive approximations to a final, target behavior and the

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extinction of those same approximations as the final behavior is configured. Three aspects can be distinguished in this procedure: 1) Specifying the target behavior clearly; 2) Choosing an initial behavior; 3) Choosing the steps to be followed and moving forward at an appropriate pace. These three aspects can be found in the debates analyzed here. It is worth mentioning that a change in verbalization throughout the debate technique means the achievement of the desired therapeutic goal because, as we pointed out earlier, the aim of cognitive restructuring techniques is precisely to identify and modify the client's maladaptive cognitions, highlighting their harmful impact on behavior and emotions.

As explained in the Results section and indicated in Table 4, in this case study the therapist indicated from the outset, in Debate 1, the verbalization that was the final objective of restructuring (Step 1 of the hypothesized shaping process), "*I am a successful woman"*, an objective eventually reached in the last debate (see Table 4). Between these two moments, the verbalizations that the therapist set as targets for debate moved steadily toward the final objective. For example, as Table 4 shows, Debate 2 started with *"My behavior at work is valuable"* (step 2 of the hypothesized shaping process) and Debate 3 focused on *"At work I rank at the top"*, until getting to *"I am above average in my work"* and *"I am exceptional in my work"* in Debate 4. In some of the debates, before moving on to a more advanced verbalization, the therapist checked that the achievements of the previous session(s) remained intact. For example, in Debate 4 the therapist started with questions aimed at evaluating the empirical evidence behind the verbalization "*My behavior at work is valuable"*, something already done in Debate 2 (see the Debating Strategy column in Table 4). In these cases, the debate tended to be much quicker and the questions shorter and more to the point. As explained in the previous section and as illustrated in Table 6, on some occasions the therapist failed to achieve the programmed objective and accordingly did not reinforce the client's behavior. Instead she punished the behavior and changed her strategy, sometimes going back

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to a previous step that had not been sufficiently consolidated; alternatively, she kept working on the same step but with a different strategy. In contrast, when the proposed objective was reached, the therapist moved on to the next step if the objective seemed relatively secure, or she kept working on the same step until the verbalization was sufficiently consolidated. (Either strategy exemplifies Aspect 3 of the hypothesized shaping process.)

If we focus on a more molecular level of analysis, the S-R-C sequences in the therapist-client interaction, it also seems that we can talk of shaping: the client's behaviors that came closer to treatment objectives were reinforced, while those that moved away from the verbalizations set as targets by the therapist were either non-reinforced or punished. Thus, throughout the case (see Table 7) a higher frequency of punishment occurred in two debates (2 and 4) in which the client emitted verbalizations opposed to the therapeutic goals, whereas reinforcement was much more frequent when the client emitted verbalizations that agreed with these goals (something that happened with greater frequency in the last debates, when the client's verbalizations were closer to the final behavioral objective). The informative function appeared in varying proportions across the different segments and, as already indicated, we believe that it performed a preparatory role for shaping. The information always alternated with moments when, instead of plainly stating the target verbalizations, the therapist aimed at making the client verbalize them. On many occasions, the therapist provided information when she considered that the client was not sufficiently informed to go on with the debate; accordingly, in order to progress the therapist went back to explain aspects of the client's behavior or of the behavior of others. When the information load was high, the therapist always checked that the client was following her explanations by asking questions to this effect. In the clinical case reported here, the motivational function, which we also consider a preparation for shaping, occurred at a zero frequency. This was probably due to the small number of debates analyzed, because the motivational function did occur in our

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previous research based on a larger sample (Froján, Calero, & Montaño, 2007). As to the instructional function, it always occurred at the end of the debates, along with information about the usefulness of the proposed task, apparently in order to consolidate the changes produced during the therapy; alternatively, the therapist proposed tasks that allowed moving into the next debate, as in Debate 2 (see Table 4). In agreement with previous results by our research group (Froján, Calero, & Montaño, 2007), the evocative function did not appear in any debate, which may indicate that it is not a characteristic function of debates in cognitive restructuring.

Although our theoretical explanation of what happens during *restructuring* differs from that presented by Beck and Ellis, the debate technique was implemented here in ways quite similar to the examples that both authors include in their manuals, with one important difference. In our case study, the final, target verbalization was presented from the outset, and the client was regularly informed of the therapeutic goal to be achieved at any moment. This is clearly unlike what both Beck (1979) and Ellis (1977) proposed: the challenges to the client's suppositions should be presented in the form of questions and suggestions of possible alternatives instead of making declarative statements or affirmations. Might the present option be more convenient in therapeutic terms? In theory it might, if we hypothesize that restructuring is a shaping process. The empirical effectiveness of this option could be evaluated though a comparative study of the two ways of performing cognitive restructuring, establishing different indicators of effectiveness and using a larger sample of debate segments. This type of comparative study seems both interesting and feasible because in previous data analyzes conducted by our research group, which involved different cases and therapists with varying levels of clinical experience, the final target verbalizations were not always presented clearly at the outset (see, for example, Froján, Calero, & Montaño, 2007).

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Other improvements planned in our future research involve a more extensive use of the *Observer XT* instrument for the detailed analysis of the sequences of interaction between therapist and client that would in turn facilitate sequential analyses allowing us to make a statistical study of the sequences that occur. An analysis of the content of the client's verbalizations is also required, which in turn implies the defining of sub-categories for the functions of the psychologist's verbal behavior, promoting a more detailed study of their dyadic interaction.

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Table 1. Sample

Fragment	*Session*	*Duration of fragment (mm:ss)*
1	5	01:17
2	5	12:45
3	6	08:39
4	7	13:31
5	9	01:09

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Table 2. Therapist´s verbal behavior category system

Function	Definition
Discriminative	Verbalization that occasions a client's behavior (verbal or non verbal) usually followed by reinforcement or punishment.
Evocative	Verbalization by the therapist that elicits an observable emotional response or a verbalization referring to its appearance in an indirect way by the client.
Reinforcement	Verbalizations that show agreement with, acceptance of and/or admiration for the behavior shown by the client.
Punishment	Verbalizations that indicate disagreement with, disapproval of and/or rejection of the behavior shown by the client.
Instructional	Guidelines offered by the therapist to promote a given behavior in the client outside the clinical context.
Motivational	Verbalization by the therapist that highlights the benefits derived from a given behavior shown by the client or the costs of maintaining a dysfunctional behavior.
Informative	Verbalization by the therapist that transmits his or her theoretical and/or clinical knowledge to the client.
"Others"	Any verbalization that could not be included in any of the above categories.

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Table 3. Types of S-R-C Sequences Found in The Analysis of Debates

Type of S-R-C Sequence	Examples
DISC - R - (not C)	**Example 1 (Debate 4):** ***-T:*** Is someone who is above the rest "exceptional"? (DISC) - ***CL***: Yes. (R) ***-T:*** So, are you above the rest or not? (DISC) **Example 2 (Debate 2):** ***-T:*** And you don't think you are worthy? (DISC) ***-CL:*** Nothing special. (R) ***-T:*** Nothing special? (DISC)
DISC - R - REINF	**Example 3 (Debate 4):** ***-T***: So, what does "special" mean, something good or bad? (DISC) ***-CL:*** It's good. (R) ***-T:*** OK. (REINF) **Example 4 (Debate 5):** ***-T:*** Say it to yourself. It's perfectly right to do so. (DISC) **-CL:** Yes, yes, this is what I'm doing. (R) ***-T:*** Good. (REINF)
DISC – R - PUN	**Example 5 (Debate 4):** ***-T:*** So, are you above the rest with respect to your work? (DISC) ***-CL:*** I suppose so. (R) ***-T:*** No, don't "suppose," no. (PUN) Yes or no? (DISC) **Example 6 (Debate 2):** ***-T:*** Do you think that any son would do that? (DISC) ***-CL:*** Hmm. (R) ***-T:*** Well you don't know much about life. (PUN)
PREP (Informative, Motivational) or INSTR + DISC - R - REINF/PUN	**Example 7 (Debate 4):** ***-T:*** One can't use the word "exceptional" for everybody because then the word would be meaningless. (PREP INF) Now, tell me, do people value you? (DISC) ***-CL:*** Yes. (R) ***-T:*** Do you think you do your job well? (DISC) **Example 8 (Debate 3):** ***-T:*** So, regardless of whether this comes from some intrinsic power, which I don't think is the case, or from lots of things that come together (PREP INF), do you think they rank you higher or lower than others? Do they give you easy or difficult tasks? Do they send you on overseas assignments? Tell me. (DISC) ***-CL:*** They rank me higher than others. (R) ***-T:*** OK, good, that's all I wanted to hear... (REINF)

Note: T: therapist; CL: client; S: stimulus; R: response (of the client); C: consequence; DISC: discriminative function; REINF: reinforcement; PUN: punishment; PREP: preparation.; INF: informative function; INSTR: instructional function.

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Table 4. Verbalizations/Cognitions Set as Therapeutic Objectives

Debate	Verbalization/Cognition Set as Therapeutic Objective	Debating Strategy
1	*"I am a successful woman"* (final goal of the restructuring process)	Information about what is meant by a successful woman.
2	*"In general, my behavior is valuable."* *"My behavior at work is valuable."*	-Questions intended to evaluate the empirical evidence for the verbalization *"my behavior is valuable."* -Questions intended to evaluate the empirical evidence for the verbalization *"my behavior at work is valuable."* -Information about how certain behaviors are learned. -Homework proposal: asking colleagues about how she is doing in the workplace.
3	*"At work I rank at the top."*	-Questions intended to evaluate the empirical evidence for the verbalization *"At work I rank at the top."* -Questions intended to evaluate the empirical evidence for the verbalization *"At work I rank at the top"*, based on the opinion of her coworkers.
4	*"My behavior at work is valuable."* *"I am above average at work."* *"I am exceptional in my work."*	-Questions intended to evaluate the empirical evidence for the verbalization *"My behavior at work is valuable."* -Questions intended to evaluate the empirical evidence for the verbalization *"I am above average at work."* -Questions intended to evaluate the empirical evidence for the verbalization *"I am exceptional in my work."* -Questions intended to evaluate the empirical evidence for the verbalization *"I am exceptional in my work"* based on the opinion of her supervisor. -Questions intended to evaluate the semantic clarity of the words "exceptional" and "special."
5	*"I am a successful woman"* (final goal of the restructuring process).	Information about what is meant by a successful woman.

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Table 5. Example of Debate Segment (Segment 3): Parts of The Debate, S-R-C Sequences, and Examples of Therapist-Client Interchange

Parts of the Debate	S-R-C Sequences	Therapist-Client Interchange
Evaluation of homework.	DISC - R	***-T:*** Have you read it? (DISC) ***-CL:*** Yes, I have. (R) ***-T:*** Great, well done! (REINF) Well? Does it say nasty things? (DISC) -***CL***: No. (R) ***-T:*** Ah. (DISC) ***-CL:*** No, not nasty, it says nice things. (R)
Questions intended to evaluate the empirical evidence for the verbalization "*At work I rank at the top.*"	DISC - R PREP (INF) + DISC - R DISC - R - PUN	***-T:*** Each person is different, but with respect to criteria of efficiency and performance, or appraisal, people do not end up all equal. Some rank higher than others. That's the way it is. (PREP INF). So, face it, are you one of those who are good or one of those who are bad at what they do? (DISC) ***-CL:*** I don't know. (R) ***-T:*** I'm going to ask you the question again. (DISC) ***-CL:*** It depends on who you're talking about, well, I mean... (R)
Questions intended to evaluate the empirical evidence for the verbalization *"At work I rank at the top*," based on the opinion of colleagues at work.	DISC - R PREP (INF) + DISC -R- REINF	***-T:*** (Reads a letter from the client's coworker.) Do you think all jobs are highly valued? (DISC) ***-CL:*** Yes. (R) ***-T:*** All equally well? (DISC) ***-CL:*** Each in its own way, but yes. (R) ***-T:*** (Reads another fragment.) Don't you think that...? (DISC)
Questions to check that the target verbalization "*At work I rank at the top"* remains intact.	DISC - R DISC - R - REINF PREP (INF) + DISC - R	***-T:*** Fantastic! Great! It's great that you've done it and the result couldn't be better (REINF). So, are you good or bad at what you do? (DISC) ***-CL:*** I'm good. (R) ***-T:*** Are you well considered or not? (DISC) ***-CL:*** Yes. (R) ***-T:*** Are you good at what you do? (DISC) ***-CL:*** Yes. (R) ***-T:*** Do they see you like a person who opens herself to others or not? (DISC) ***-CL:*** Yes. (R) ***-T:*** OK. That's quite an achievement. (REINF)

Note: T: Therapist; CL: client; S: stimulus; R: response (of the client); C: consequence; DISC: discriminative function; REINF: reinforcement; PUN: punishment; PREP: preparation; INF: informative function.

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Table 6. Different Forms of Change Along Debate

Form of Change	Examples
The therapeutic goal is not met, the therapist punishes (or does not reinforce) behavior, and changes her strategy.	**Example 1 (Debate 4):** ***-T:*** Now, tell me, do people value you? (DISC) ***-CL:*** Yes. (R) ***-T:*** Do you think you do your job well? (DISC) ***-CL:*** Yes. (R) ***-T:*** No, that unconvincing "yes" isn't any good (PUN) …….CHANGE……. ***-T:*** Let's start again (DISC)
The therapist's objective is met, reinforcement may be delivered, and a change is made (to confirm what has been achieved or move on with the therapy).	**Example 2 (Debate 4):** ***-T:*** I'll ask you again, is your performance at work above that of your colleagues? Or above average, if you prefer it that way? (DISC) ***-CL:*** In some ways, yes. (R) ***-T:*** Good. (REINF) …….CHANGE TO MOVE ON……. ***-T:*** I am going to repeat the question because I want you to give me a convincing "Yes," look. (DISC)
The client changes her topic of conversation and the therapist engages in the debate for a while, digressing from the strategy she was following.	**Example 3 (Debate 4):** ***-T:*** Let's go back over this again (DISC) ***-CL:*** Yes, but that is, I don't know..., that's there because it's a way of saying that there's a special characteristic (R) …….CHANGE……. ***-T:*** "Special," I like that too. (REINF) Right. Do you think that everybody is special? (DISC) ***-CL:*** Yes, but "special" is neither good nor bad. (R)

Note: T: therapist; CL: client; R: response of the client; DISC: discriminative function; REINF: reinforcement; PUN: punishment.

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Table 7. Absolute and Relative Frequency of Functions of the Therapist's Verbal Behavior in Each Debate

	Debate 1		*Debate 2*		*Debate 3*		*Debate 4*		*Debate 5*	
	Ab. Freq.	%	Ab. Freq.	%	Ab. Freq.	%	Ab. Freq.	%	Ab. Freq.	%
Discriminative F.	1	25%	45	67.16%	35	68.63%	53	55.21%	2	25%
Reinforcement	1	25%	2	2.98%	11	21.57%	23	23.96%	2	25%
Punishment	0	0%	3	4.48%	1	1.96%	9	9.37%	0	0%
Prep: Informative F.	2	50%	16	23.88%	4	7.84%	11	11.46%	3	37.5%
Prep: Motivational F.	0	0%	0	0%	0	0%	0	0%	0	0%
Instructional F.	0	0%	1	1.49%	0	0%	0	0%	1	12.5%
Evocative F.	0	0%	0	0%	0	0%	0	0%	0	0%

Note: F: function; Prep: preparation; Ab. Freq.: absolute frequency.

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