ISSN 1982-3541
Belo Horizonte-MG, Brazil
2007, Vol. IX, nº 2, 73-90

Brazilian Journal of Behavioral and Cognitive Therapy

Verbal behavior in clinical context: behavior analysis methodological contributions[1]

Denis Roberto Zamignani[2]
Universidade de São Paulo
Núcleo Paradigma
Universidade São Judas Tadeu
Sonia Beatriz Meyer[3]
Universidade de São Paulo

Abstract
This article discusses methodological aspects involved in psychotherapy research, especially the so called process research, that identifies the change processes occurring in the client-therapist's interaction from a behavior analytic point of view. Brazilian behavior-analytic studies of session analysis illustrate the discussed matters. Issues concerning the categorization of behaviors in clinical interaction, such as the nature of events that compose a group of categories, criteria for reliability and validity of a categorization system, delimitation of the occurrence and registration unit in social interactions and the appropriated measures are discussed. Lastly, different strategies are presented for categorized data systematization, as well as some of the limitations and advantages of each.

Key words: Clinical research, Research methodology, Behavioral Categorization, Clinical behavior analysis.

The study of the therapeutic interaction aims at investigating the interpersonal variables that are responsible for the change in therapy. Researchers from different theoretical approaches and knowledge areas have developed methodological strategies to characterize this interaction, by means of direct observation of audio and/or video recorded sessions and characterization of behavior observed. Such researches, whose main feature is the interaction (verbal and non-verbal) between therapist and client, are called process researches (Russel & Trull, 1986; Greenberg & Pinsof, 1986) and aim at identifying the changing processes that occur during the interaction between client and therapist.

The study of these changing processes, according to Kazdin and Nock (2003), constitute an important investment to improve the clinical practice and the care towards the client, aiming at maximizing the effects of the treatment and assuring that critical aspects of it are generalized to the clinical practice (p. 1117).

The objective of this article is to discuss, through the point of view of the behavior analysis, some of the particularities involved in the knowledge building in the context of the therapist-client interaction within the therapeutic session. We defend the proposal that studying the changing process, and not just the results, is quite consistent with the model of knowledge construction of this approach, since the interaction between the individual and the environment and the learning processes are their object of study.

1 This work is part of the doctorate thesis of the first author, under the second author's orientation, in the Graduate course in Clinical Psychology of São Paulo University. This work is partially sponsored by FAPESP (process 04/05840-8).
2 E-mail: denis@nucleoparadigma.com.br. CAPES Scholarship doctorate in the period of March 2004 to February 2005.
3 Professor of the Psychology Institute of the University of São Paulo. E-mail: sbmeyer@usp.br

Translation by Carolina Souza de Sampaio. E-mail: caroldesampaio@hotmail.com

The study of behavior in the clinical context

A singularity with which we deal when studying what occurs within the psychotherapy is that we are analyzing the behavior of a minimum of two individuals - therapist and client - interacting. Therefore it is a process of mutual influence (Meyer & Vermes, 2001), in which the behavior of both are analyzed as social behaviors (Skinner, 1953/1993).

For this we must take into consideration the variables (social stimuli – in this case, actions from the other individual) that control the behavior of each one of the members of the interaction (Skinner, 1953/19993). The identification of regularities in these interactions constitute the aim of the data's systematization[4].

In the study of the therapist-client interaction, one of the possibilities of identifying regularities is the systematization of the observation data in to *classes* of behavior of the therapist and of the client, and the criteria of systematization would be described in terms of *categories* of behavior. From then on analyses of the relationship between these categories would be conducted, in a way to identify possible effects of different behavioral classes of a member of the pair upon the other (Russel & Trull, 1986; Wampold, 1986).

Many categorization systems developed especifically for the analysis of the interaction therapist-client can be found in the Brazilian literature (e.g.: Baptistussi, 2001; Brandão, 2003; Britto, Oliveira & Sousa, 2003; Donadone, 2004; Garcia, 2001; Margotto, 1998; Martins, 1999; Moreira, 2001; Novaki, 2003; Oliveira, 2002; Tourinho, Garcia, & Souza, 2003; Vermes, 2000; Yano, 2003; Zamignani & Andery, 2005) and international (e.g.: Bischoff & Tracey, 1995; Chamberlaim et al., n.d.; Chamberlain, Patterson, Reid, Kanavagh & Forgatch, 1984; Hill, 1978; Hill, Corbett, Kanitz, Rios, Lightsey & Gomez, 1992). The differences found among them are due especially to the nature of the matter investigated and to the different theoretical assumptions that guide each one of the studies.

In the existing works about the subject, problems involved in the elaboration, definition and employment of the categories for the classification of the behavior deserve to be taken into consideration. Some of these problems will be discussed below:

Criteria for the systematization of events related to behavioral categories

The categorization of events comes from some type of organization of the universe studied and this organization depends on the function that will be exerted by the system of categories. Some systems of categorization are proposed for the training or judging of therapists' performance in a determined therapy approach (examples of systems used for this purpose are presented by Callaghan, 2006; Hill & O'Brien, 1999; Ireno, 2007; Sturmey, 1996). In this case, its function is prescriptive, in other words, the presentation of the categories suggests a set of standards that should be followed by the therapist for the development of his/her clinical work. Such categorization proposal is guided especially by the theoretical-methodological model of intervention adopted by the author, more than by a certain set of observed data.

On the other hand, systems that have as an objective the categorization of the therapeutic interaction for research, present an essentially descriptive characteristic. As a consequence, the criteria for this categorization, differently to what occurs in a prescriptive system, are guided more by the data observed. However, such descriptive characteristic should be considered with safeguard because even if the researcher is exempted from the purpose of guiding and prescribing a determined set of practices, their organization of the phenomenon observed is bound to reveal some type of interpretation a priori,

4 Skinner's Verbal Behavior (1957) is an example of the systematization of regularities found in a specific type of social behavior: the verbal behavior. It is worth remembering that this work was written by Skinner as an exercise of interpretation, therefore not being drawn on a systematic study.

when selecting relevant events for the comprehension of the phenomenon that composes this universe. The selection of some behavioral classes as opposed to others to be highlighted, reveals a way to comprehend the process that necessarily passes by the theoretical-methodological position adopted by the researcher.

Great part of the clinical studies carried out until then about the therapeutic interaction had categorized the vocal verbal behavior of the participants from the text analysis of the transcriptions of the sessions recorded in audio or video.

For this categorization, the actions pointed out by the clinical literature as typical of a therapeutic verbal interaction (called in some studies interpersonal variables) are taken into consideration, such as "description of events", "orientation", "inference", "approval", etc. (e.g. Almásy, 2004; Barbosa, 2001; Chamberlaim et al., n.d.; Chamberlain et al., 1984; Donadone, 2004; Garcia, 2001; Hill, 1978; Hill et al., 1992; Kovac, 2001; Maciel, 2004; Margotto, 1998; Martins, 1999; Meyer & Donadone, 2002; Moreira, 2001; Oliveira, 2002; Silva, 2001; Vermes, 2000; Yano, 2003; Zamignani & Andery, 2005).

Parting from the categorization around these events, the authors have analyzed important processes of the clinical interaction, such as the therapist's decision making (Margotto, 1998), the consequences supplied by the therapist to the client's actions (Almásy, 2004; Silva, 2001) orientation and counseling given by the therapist (Donadone, 2004; Meyer & Donadone, 2002; Zamignani & Andery, 2005), the management of feelings and emotions (Almásy, 2004; Brandão, 2003; Vermes, 2000) and of different clinical complaints during the session (Barbosa, 2001; Yano, 2003; Zamignani & Andery, 2005), among many others.

In some of the works, the analysis of these events also demanded the classification of the episodes studied parting from criteria of *content*, or *theme*. It is the case of the researches developed by Baptistussi 2001) and Garcia (2001), who studied the therapist's behaviors related to the non-punitive audience and avoidance blocking, respectively, and their possible effects on the client's responses. These researchers used the increase or decrease in the variety of themes brought by the client to the conversation as an indicator of possible answers of adherence or avoidance. In the work of Zamignani and Andery (2005), in turn, the intention was to characterize the analytical-behavioral therapeutic process when attending clients with diagnosis of Obssessive-Compulsive Disorder. In this study, the subdivision of the interpersonal categories of the therapist and client concerning their theme being related or not to the client's complaint allowed the viewing of processes such as the differential reinforcement of verbalization or the intervention by means of contingency analysis and counseling, conducted by the therapists participating. In the study of Yano (2003), in turn, the categorization around the events considered relevant by the therapist-researcher (some of these events related to themes), in cases of panic disorder, allowed the evaluation of results from the therapeutic process by the researcher. It is worth highlighting that in the works cited before, the thematic categories were defined afterwards, from the data observed previously. This choice probably comes from the great variety of possible themes that can be approached in a therapy. Although a previous categorization of the session's themes is possible, it should consider a wide variety of possibilities of client interaction, with very specific criteria of inclusion and exclusion to avoid undesirable overlapping, which would compromise its management. Beyond this, it is possible that for a certain client only one theme can be explored deeply and related to other subjects and aspects of his/her life, which would probably demand from the researcher a subdivision of aspects related to this theme. A system of previously defined thematic categories, which could approach the diversity of possible themes, could be too wide, producing excessive data dispersion. It

seems important then to consider the flexibility in the use of this type of instrument fitting pre-defined categories to the relevant themes of the samples of studied sessions.

Another issue that deserves to be discussed is that in the majority of the studies were developed **vocal verbal** behavior analyses. Although in many researches this strategy has offered important information, issues of practical and theoretical nature that conduct the work of the researchers can frequently demand other types of information. Some researchers pointed out limitations related to this kind of data. Baptistussi (2001), Garcia (2001), Vermes (2000) and Zamignani (2001) reported difficulties in the categorization and identification of the studied phenomenons when the data obtained were exclusively verbal-vocal, which would have limited the extent of their studies. Especially for the study of emotional episodes, the inclusion of other dimensions of the participants' behavior, besides the verbal-vocal (non-vocal verbal responses and motor responses correlated to emotional responses) could favor the analysis and interpretation, since such events have been presented by the literature of the area as measurable representatives of emotional aspects (Beier & Young, 1998; Fiorini, 1995). The consideration of non-vocal behavior of the interaction has also contributed to the study of the manifestation during the sessions of psychiatric symptoms such as anxiety and depression (Geerts, 1997; Waxer, 1978) or the study of indicators related to the constitution of the therapeutic bond (Tickle-Degnen & Rosenthal, 1990). According to Fiorini (1995), to include non-vocal aspects, a categorization system should present a multidimensional aspect.

Reliability and validity of a categorization system

A categories' system developed for research purposes must guarantee the constancy in the measure of phenomenons and processes that it sets out to measure, besides providing adequate and precise measures, which help in the production of relevant conclusions about the phenomenon studied (Ary & Suen, 1989; Richardson, 1999). Such demands require that the researcher pays attention to matters of reliability and validity of data produced by the instrument(s) of observation developed or adopted by him/her.

The matter of reliability refers to the consistence or stability of the observation data obtained by means of an instrument. For this, the instrument must provide similar measures when the same phenomenon is studied by different researchers or by the same researcher in different moments (Ary & Suen, 1989; Richardson, 1999). We can calculate the reliability within a particular session of observation (intra-session reliability), throughout a set of sessions (inter-session reliability) or still for each behavior that composes the total score of the instrument (Ary & Suen, 1989). Such decision will depend upon the purpose of the study. In the cases of reliability studies of categorization systems, when the objective is to identify possible necessities of additional training of observers or improvement of register procedures, each behavior that is part of the categorization system is of interest to the study and therefore, the reliability must be analyzed for each one of them.

One of the main methods for obtaining reliability is the study of agreement between observers that evaluates the extension to which two or more observers agree upon the occurrence or non-occurrence of a behavior (Ary & Suen, 1989). Among the many agreement scores existent, the majority of the Brazilian studies of therapeutic interaction have used the percentage of agreement (division between the number of agreements and the sum of the total of agreements + disagreements x 100). This score however, can inflate the agreement score by means of random occurrences. Ary and Suen (1989) recomend the Kappa coefficient as a more reliable score, since it discards the expected random agreements and can enclose events involving two or more observers.

Even though reliability is important to guarantee the consistence of measures, it is only a pre-condition for the good quality of the data; by itself, it does not show that the data is a good representation of a particular behavior. For this purpose it is necessary to check the data validity (Ary & Suen, 1989). Validity is understood as evidence accumulation that the instrument measures what it is supposed to represent, in a precise and appropriate way (Ary & Suen, 1989; Kazdin, 2002; Richardson, 1999). There are different criteria – content validity, convergence validity, predictive validity, not mutually exclusive, which take into consideration different angles of the phenomenon and can sum up in the obtention of validity evidences (Ary & Suen, 1989). It is important to consider that the bigger the number of validity evidences and of the observation instrument, it is bigger the probability that it be accepted as a representative measure of the phenomenon being studied.

Precision in the definition of categories

In a system of behavioral events categorization, a prerequisite for obtaining reliability as well as validity measures, is the precise description of the variables that will control the researcher for the operationalization of the events according to a given behavioral category. According to Danna and Matos (1999), the definition of an event in a given category, must: "(1) be objective, clear and precise; (2) be expressed in a direct and affirmative manner; (3) include only elements that are pertinent to it; (4) be explicit and complete" (p. 134). Besides this, its definition can not be 'circular', in other words, the term defined can not be used in its definition (Marinotti, 2000) and subjective terms or interpreted or inferred facts must be avoided (Cunha, 1975; Fagundes, 1992).

The methodological recommendations contrast with some practical issues when considering the analysis of social interactions: it is common in these cases for the content of the interaction to be ambiguous or plural, which would imply in an overlapping of categories, in the imprecision of its description (Baptistussi, 2001; Zamignani, 2001) or even in the low agreement among the judges (Chequer, 2002). In a study about agreement between observers in which was applied a system of categories used in some works developed in Brazil (Souza Filho, 2001), Chequer (2002) it was observed that the categories used in those works presented a generalist characteristic, which could produce more than one interpretation for the same category between different observers, and lead to a low agreement among observers. A similar observation was reported by Kovac (2001), who affirmed that the categories proposed were confusing among themselves and presented functional similarities, which would demand a refinement of the criteria to define this classification system.

Chequer (2002) also pointed out that part of the categories developed "referred not to behavior, but to products of behavior. For example, the categories *Information* and *Feedback* do not name a behavior or a relationship between listener and speaker, but, in its substantive form, they give a broad denomination of a purely linguistic product, without context" (p. 76). This characteristic, according to this author, would avoid the establishment of limits for the functionality of the category.

These observations point out the necessity of a greater specification of the criteria for the definition of the categories of a system. Marinotti (2000) recommends that when the classes to be categorized are very similar, ambiguous or strictly related, we should establish exclusion criteria among categories when this is necessary, besides highlighting which category should have priority in the categorization, when there are doubts that are not solved by the criteria of exclusion. Such recommendations highlight the necessity of detailed definitions and of a careful analysis by the researcher of the categories system as a whole and of possible overlapping, similarity and differences among the events catego-

rized.

It is also necessary to consider some criteria so that the *group* of categories developed represent, for a fact, the events that supposedly occur in the therapeutic interaction. The first issue that is presented is related to the number of categories that a system should contain, which refers to the degree of specificity or sensibility to subtle events that it should reach. Wampold (1986) and Zamignani (2001), in respect to this emphasized that one of the concerns in the development of categorization systems used by them was that it should be sufficiently sensitive to respond to the issues presented in their respective works, without though, being excessively detailed. An excess of specification would make the identification of interaction standards more difficult, because of the excessive dispersion of results. The challenge in this case, goes necessarily through the consideration of other criteria, such as the research question, the nature of the collected data and the theoretical-methodological posture assumed by the researcher.

Besides the issue related to the specificity of the set of categories, some criteria has been suggested by the literature of the area (e.g.: Danna & Matos, 1999) to maintain the coherence and the internal validity of the categories' system: (1) the categories constructed must be exhaustive and mutually exclusive; (2) all the behavior that has been observed and registered must be classified, regardless of the number of events that are categorized in each class; (3) there must be coherence among the categories in the criteria chosen for the classification and in the degree of specificity adopted for the class of events.

Formal and functional criteria for the definition of an occurrence unit of a social interaction

When pondering about the elaboration of behavioral categories, Marinotti (2000) highlights the necessity, in the definition of a category, of establishing its occurrence unit, in other words, when it begins and when it finishes – so that it is possible to quantify the category. This unit is called *register unit*, and it should relate to the characteristics of the studied object and the objectives of the analysis in a pertinent way (Bardin, 1977).

The register unit in a research can be of various natures and dimensions, which can come from criteria such as topographical, functional, semantic, among others, depending on the objectives of the researcher (Bardin, 1977; Danna & Matos, 1976/1999; Fagundes, 1976/1992; Hutt & Hutt, 1974; Johnston & Pennypacker, 1993). For the study of psychotherapy sessions, each one of these criteria can imply in limitations and advantages.

One of the important objectives of studies whose reference is the behavior analysis is the identification of control variables related to the behavior in focus. In most cases it refers to functional relations among responses being studied and other environmental events. Therefore, the identification of **functional classes of response** is the aim. According to Johnston and Pennypacker (1993), a class of responses is called functional when it is defined in a way to include only those responses whose occurrences depend of (is **function** of) a particular class of stimuli, in other words, responses that establish a contingency relation with a determined class of environmental events. The question is: when in the research process – in the moment of categorization or in a later stage – these functional relations should be identified (or inferred)?

A similar question to the last one was discussed by Russel and Stiles (1979), related to the research process in psychotherapy. These authors referred to two kinds of strategy – the *pragmatic* and the *classic* - by means of which social interaction data could be categorized.

The strategy called *pragmatic* consisted in the direct inference of the observer about states or characteristics of the speaker (or in the case of the behavior analysis, direct inference of functional relations). This strategy, according to the authors, could allow the study

of quite subtle events of interaction, however, it would imply in a great degree of inference. The lack of an operational definition of the decision making process when categorizing each event could limit the possibility of reproduction of the research done, as well as hinder the review of the analyzed data, lacking generalization. This seems to be the main problem involved in the categorization of events concerning *functional units of register* (Danna & Matos, 1976/1999; Fagundes, 1976/1992; Johnston & Pennypacker, 1993). In a social interaction, the relevant variables for the identification of *functional classes of response* are not necessarily contiguous to the studied response and therefore, even if the immediately preceding and/or subsequent events to the response for the categorization were considered, such information would be insufficient. This is the case of the result of any procedure applied by the therapist whose effects, generally, can not be observed immediately or even within an only session.

The other strategy referred to by Russel and Stiles (1979), is called *classic* and requires two operational steps for the categorization of behavior. First, the research would identify instances of categories, parting from formal aspects of the studied event and later would make inferences based on the frequency (or another type of measure) of the identified categories. Such strategy would explicit the process involved in the inference done by the researcher for the categorization, favoring the reproduction and generalization of the results obtained. In this case the interpretation about the functional relations, would not be done in the moment of register, but afterwards, from the systematization of the categorized data, which would allow the identification of patterns in the studied interaction. Such strategy seems to follow a sequence of necessary steps to identify the functional relations. According to the words of Staddon (1967):

> Operants (...) are not defined, but inferred. The regularities are observed between stimuli-events and response-events; after a careful observation, the experimenter decides that these regularities relate a class of events to another and identifies these classes by their property. (p. 382)

Considering the strategies proposed by Russel and Stiles (1979), in case one has as an objective the construction of a categories' system that can be used in different researches, with a greater probability of producing comparable data, it seems reasonable the adoption of categorization strategies closer to the one called classic. To accomplish this, one of the possibilities for the elaboration of behavioral register categories would be the categorization of events around formal criteria (or topographic). The categorization parting from *topographic* criteria has as focus similarities in the movement and/or posture and/or appearance of behavior (spatial dimensions of behavior). In other words, it implies on the decision upon the "*format limits concerning the three spatial dimensions to which each response must correspond to be included in class*" (Johnston & Pennypacker, 1993, p. 71). This type of criteria favors that the relevant elements for categorization be clearly specified and identified. However, when we refer to social behavior there is a certain difficulty to determine the topographical dimensions. Even if words, phrases or sentences are considered as relevant dimensions, they are units that isolated give restrict information about the current interaction (Bischoff & Tracey, 1995). Such limitation can be discussed parting from Skinner's (1957) considerations;

> Underneath the level of words lay roots, or, more precisely, the small 'meaningful' units called morphemes. Above the words are phrases, idioms, sentences, clauses, etc. Each one of them can have a functional unit as a verbal operant. A particle of behavior as small as a single sound can be under independent control of a manipulating variable. (...) On the other hand, a broad segment of behavior (...) can vary under similar functional unitary control. (p. 21)

In this way, verbalizations or motor responses of very similar topographies could be evoked by quite diverse events or affect the interlocutor's behavior in a also diverse

way, depending on the context in which the response occurs. It seems important that the topography of the response be really taken into consideration, but within a context that gives it meaning. Contiguous events when responding – immediately preceding and subsequent events – are not sufficient for the identification of a *functional class of responses*, but make up elements that give context to the individual's verbalization or action. In this case we would be abdicating from a topographic categorization towards a strategy that involves a certain degree of inference upon the response function in the immediate context of the interaction. Such categorization strategy, considering the classification of Russel and Stiles (1979), is between the *classic* and the *pragmatic* (as pointed out by Hill, 1986) and involves the estimate of the immediate function of the verbalization parting from the observation of the topography and the immediate context in which the verbalization fits in. The identification of functional relations related to the broader context of the session or to the therapist-client relationship is done later in the analysis.

This categorization method can be related to what Bardin (1977) calls *semantic* categorization. This type of categorization, according to this author, refers to cuts in the semantic level of signification units, according to certain criteria concerning the theory that serves as a guide to the analysis that sometimes, coincides with formal units of the text (words, phrases, etc.). Its length varies and its validity is not strictly linguistic:

> …it consists in discovering the "meaningful nucleus" that makes up the communication and whose presence or apparition frequency can mean something for the chosen analytical objective. (…) [a] register unit corresponds to a rule of cutting (of meaning and not form) (…) the cut depends on the level of analysis and not of regulated formal manifestations. (…) the register unit exists at the point of intersection of perceptive units (words, phrase, document, material, physical character) and of semantic units (themes, events, individuals), even though it seems difficult (…) to do a cut of purely formal nature… (pp. 105-107)

The meaning of a semantic unit, according to Bardin (1977) would be given by elements of context – segments of the interaction that give meaning to the register unit. Its worthwhile reminding that the term signification, for the behavior analysis, refers necessarily to relationships of the studied event with other events that would change its probability of occurrence (Tunes, 1984). In Skinner's words:

> A response, for example, can be described as a *form* of behavior. An operant specifies by at least one relationship with a variable - the effect that the behavior has, characteristically, even though not inevitably, upon the milieu – and it is not, because of that, a formal unit. A formal specification can not be avoided, but if a response can be considered an example of operant only by means of an objective identification. But only the objective identification is not enough. (Skinner, 1974, p. 115)

An example of verbalization class that illustrates this discussion is the report of improvement by a client. Such report, seen purely in its topographical aspect, could be at top categorized as a description of events or, depending on the criteria, as an affirmation. Some contextual information would be necessary to consider it as a report of improvement – the context in which the report occurred, the theme, contiguous events. Even so, it would not be possible to immediately identify the functional relations involved: as a functional class of responses, such verbalization could be a description (a tact) indicative of the success of the procedure adopted by the therapist, but it could also have as a function the avoidance from other themes which in that moment, would be difficult for the client or it could be even the manipulation of the emotional disposition of the therapist, seeking to evoke in him/her any favorable action. On the other hand, another report or non-verbal behavior that according to its immediate context does not explicitly contain a description of improvement, can be a clinically relevant behavior which indicates the client's advance

(a description of feelings by the client, for example, when his/her complaint involves the difficulty of emotional expression, can be an indicative of improvement). During the therapeutic session, the attentive therapist guesses the possible functions of such verbalizations and when observing other occurrences of the same report class and its occurrence context, seeks data for the identification of the function. The same should occur with the researcher. The action of the researcher, if restrict to the step of categorizing the event as a "improvement report" would not be sufficient for the identification of functional relationships, although such step is essential for the search of this relationship. The inference in advance of the behavior function, in turn, would also be insufficient because the observation of other occurrences is necessary so that one can infer the behavior function with more assurance. The researcher would be more successful in his/her investigation if, just as is expected from the therapist, took into consideration that episode of behavior (therefore, a first level of categorization) and, in another moment, checked its occurrences during the observed sessions, and identified what type of interaction pattern is typically occurring when that category of verbal response is observed.

The The delimitation of the register unit in the study of social interactions

The issue of the delimitation of the register unit in the social interaction that occurs in the psychotherapy was conducted in various ways by different researchers. Some studies had as an occurrence unit the verbalization of a participant – all the participant's speech comprehended between the previous and posterior verbalization of the other (e.g., Baptistussi, 2001; Kovac, 2001; Margotto, 1998). The problem with this type of unit is that very frequently, we find in the data of therapeutic interaction long speeches of one or the other member of the pair, which contains in its interior different classes of verbalizations that could not be identified by a single behavior category.

Other works adopted as an occurrence unit segments of verbalizations – parts of a participant's verbalization identified in a specific class (e.g., Donadone, 2004; Garcia, 2001; Maciel, 2004; Martins, 1999; Moreira, 2001; Oliveira, 2002; Zamignani & Andery, 2005). With this type of criterion, the speech would not be determined exclusively by the response of the other participant, but actually by any change in nature (class, pause, theme, etc,) of the speech, even being within the same verbalization of this participant. This solution favors the categorization of the different classes of speech of the same participant in a verbalization, but brings a methodological difficulty: to achieve agreement among observers both judges must agree, not only about the chosen category, but also in relation to the determination of the parts to be categorized.

A solution to this problem was presented by Chequer (2002), who suggests that when doing the agreement test between observers, the researcher should previously select the segments to be categorized before giving the data for the judges evaluation in the agreement test. In this way, the only criterion to be evaluated related to the agreement would be the label or category attributed to the concerning segment. Such suggestion however, would imply in a problem for the researchers not involved in the same research group to reproduce the work, since the agreement among observers related to the actual selection of the segments would not have been evaluated.

Another possibility would be to evaluate separately the agreement between observers related to the selection of the segments and to the categorization, each one of these procedures giving information about different processes. The first would verify the precision in determining the **register unit**, while the other would verify the precision and clarity in determining the **categories**.

It is worth reminding that some soft-

wares supply the obtaining of measures that, at least partially, solve the problem of the selection of segments from the interaction. For example, the software "The Observer", from Noldus Technology and the software "Etnograph", from Qualis Research Associates, allow a measure of the percentage of agreement, by calculating the period of interaction (respectively the time or number of lines) in which there was agreement between observers, independently of the exact moment of the beginning of the categorized event. Then, even if there are disagreements related to the beginning of the categorized event, it is possible to detect the period of interaction in which there was agreement.

It is worth highlighting another type of register unit that has been used in studies about emotional events occurred in the therapeutic session (e.g. Barbosa, 2006; Brandão, 2003; Greenberg & Korman, 1993; Taccola, 2007). In these studies, the unit studied is the *emotional episode*: segment of the interaction that comprehends all of a part of the session in which the client speaks about experiencing or having had experienced an emotional response (or tendency to action, or both) in a specific context in which it occurred that is determined by a speech of the therapist previous to the concerning subject and a speech of the therapist after its end. This type of unit presents the advantage of situating more broadly the context of the occurrence's emotional response in concern, but implies in the same matters found when the register unit is the verbalization segment.

The matter of measure and its implications

To talk about measure implies in considering, among the constitutive properties of the phenomenon, those which would better represent the measure in the different conditions in which the phenomenon occurs and then determine a quantifiable dimension of this property (Johnston & Pennypacker, 1993). In this topic, therefore, to better situate the discussion about measure, we will consider as an occurrence unit the *segment* of verbalization, unit that has been used in a great part of the researches of the area.

In the behavior analysis, the frequency of responses has been the measure by excellence for the majority of the studies in any area of knowledge (Johnston & Pennypacker, 1993). This preference originated in the experimental studies, in which the frequency showed to be a quite appropriate measure to represent the process of behavior acquisition (Sturmey, 1996). In those studies, the frequency is an indicator from which is inferred the occurrence probability of a determined class of responses and, consequently, the process of strengthening or weakening of this class (Sidman, 1976; Skinner, 1953/1993).

Concerning the study of behavior categories, however, there is a certain debate about the relevance of this measure. The use of the frequency as a representative dimension of occurrence of determined behavior categories would put in the same level of analysis (and therefore would consider comparable) from minimum verbalizations such *"hum hum"* to long segments of verbalization in which an event is reported or analyzed. In this way, the exclusive adoption of this measure could super dimension categories such as the first ones, that occur in a high frequency, but represent a minimum period of therapeutic interaction.

The duration measure, in turn, although supplies information about the time occupied by each behavior class and the distribution of the behaviors during the interaction, could sub dimension this same type of event that, in the frequency measure, would be super dimensioned.

The alternative which seems more viable would be to consider both measures, each one of them analyzed in different moments of the process of data systematization, as suggested by Sturmey (1996) and conducted by Zamignani and Andery (2005) and Taccola (2007). Sturmey (1996) suggests a distinction between behaviors of significant frequency and duration, since the first have short dura-

tion and occur relatively frequently and the second typically occupy longer periods of time.

The obtaining of the duration measure demands from the researcher the observation of the session registered in audio or video and the register of the occurrence and duration, one by one, of each categorized episode, which makes the research work quite laborious. Nowadays there are more sophisticated technological devices that allow the register of categories from direct observation of the interaction, indexing it to the time spent in the registered session[5]. However, such equipment has a quite high cost, which could make impracticable the development of the research.

Some authors, taking into consideration these constraints, appealed to indirect measures of the interaction time. Zamignani (2001) used as an analogous measure to time the number of lines of the session transcription occupied by a determined category. Donadone (2004), studying the occurrence of orientations in the session, used the number of words contained in each of the therapists verbalization categorized as an orientation and of the client categorized as auto-orientation, comparing them with the total number of words spoken by each participant in the session. Baptistussi (2001), used the frequency of words in a determined interval of time as an indicator of the level of the client's participation in the therapeutic interaction. The solutions offered by the researchers gave relevant information about the studied interactions. The use of these strategies can be a good alternative when there are no resources for another type of register or when there is not the necessity of access to non-vocal variables of interaction.

Other possible measures would take into consideration various properties of the phenomenon in concern, such as intensity, sequential events, rate, etc. depending on the research problem and the phenomenon's property related to it.

The data systematization

Once the stage of categorization of observed events is done, we go to a not less important stage: the systematization of the categorized data.

Under the analytical-behavioral perspective, the therapeutic interaction is a process of mutual shaping, in a continuous flow of interactions. The researcher needs methodological strategies that enable the identification of behavioral patterns that maintain themselves stable during time, and changes in the studied phenomenon throughout the process.

Many authors involved in the clinical research have discussed about the reach of the different possibilities of systematization of data obtained by means of observation and categorization of verbal interaction (or "non-verbal") in the clinic (e.g.. Greenberg & Pinsof, 1986; Hill, 2001; Russel & Trull, 1986; Stiles, 1999). Part of the researches in this area have as a strategy the frequency measure of different classes of behavior observed, correlating this frequency with other elements, such as the approach adopted by the therapist (e.g. Brunnik & Schroeder, 1979; Hill & O'Grady, 1985; Rodrigues, 1997), the therapist's amount of experience (e.g. Donadone, 2004; Novaki, 2003), or the results of the treatment (e.g. Bänninger-Huber & Widmer, 1997). The appeal exclusively for this type of measure has been criticized by some authors (e.g. Donadone, 2004; Hill, 2001; Russel & Trull, 1986; Stiles, 1999) by the little specific information that it offers about what determines the occurrence of the response. For these authors, the appropriate measure for the process study should register not only the occurrence of the response, but information of the micro-situations in which occur relevant interpersonal processes. The simple frequency measurement of a determined ability of the therapist does not enable the evaluation of its quality or effectiveness, as

5 The software "The Observer" developed by Noldus Technology has been used for the studies of this research group.

well as the moment or context in which it would be more appropriate (Hill, 2001; Stiles, 1999). According to Donadone (2004), to understand the determinants of the therapist-client interaction this should be analyzed at each moment of the occurrence of an event under analysis (in this case therapist orientations and client's self-orientation), by means of analysis of the contingencies involved in each interaction unit. Stiles (1999) adds that this analysis should consider the relationship of syntony between the client's responses and the therapist's specific actions – called by him *responsivity*.

Some of the works that studied the therapeutic interaction advanced their investigation beyond the analysis of category frequencies and identified more complex aspects of the therapist-client interaction. One of the ways by which the categorized events can be systematized is by means of the analysis of specific sequences of interactions, in which each response is examined related to the contiguous actions of the interlocutor – preceding or subsequent stimuli to it (as done by Zamignani & Andery, 2005). Throughout the observation of recurring patterns of interactions between categories, possible functions of certain classes of behavior can be inferred. This type of analysis does not allow, however, the identification of more complex interaction patterns which can not be identified or investigated parting from the counting of specific sequences of action. Especially when it concerns verbal behavior, we are dealing with a phenomenon that occurs under control of multiple variables, that could be found in events distant in time or in extra-session variables and that, therefore, can not be accessed only by observation of the interaction between immediately contiguous events. The analysis of more complex patterns can involve the identification of relationships between events distant in time or response classes of a superior order (Catania, 1999).

One of the strategies of data systematization that allowed the identification of some more complex relationships (e.g., Maciel, 2004; Martins, 1999; Zamignani & Andery, 2005) was the division of the data systematization process into two distinct moments. First, each interaction observed was classified according to register category. Second, more complex aspects of the interaction – verbalization sequences or more complex interactions – were categorized having as basis the analysis categories. An example of this type of strategy was developed by Zamignani and Andery (2005). In this work, first the authors categorized the therapist and client's verbalizations by means of register categories, of the type "question", "explanation", "counseling", etc. After the analysis of the frequency of categories and the analysis of the sequences of categories, the authors selected broader parts of the session within which occurred the themes that were focus of the verbalizations of the type "explanation" and "counseling" and categorized these parts into analysis categories. Some of the analysis categories proposed by the authors were "Explanations with emphasis in response-consequence relationships", "Explanations based on demographic or probability data" (referring to the Explanation category) or "Therapist proposes activity incompatible with the response-complaint", "Solution of problems" (referring to the category "Counseling").

Possibly all the researches of process, especially the descriptive ones, require many moments of analysis. After the organization of the data collected in the first stage, the researcher must do some sort of qualitative analysis seeking to identify the regularities that appear. More than one moment of analysis were necessary in studies such as the ones from Barbosa (2001), Ireno (2007), Novaki (2003), Taccola (2007) and Yano (2003).

Another type of solution that can provide analysis of more complex interactions is the method of sequential dependence (e.g. Wiseman & Rice, 1989; Bischoff & Tracey, 1995). According to this method, sequences of events are taken as analysis' units and are statistically analyzed. The method of sequential dependence allows different modalities of

statistical analysis of the data from the therapeutic session, which can include unidirectional tests, bidirectional tests, tests of comparison between groups and of comparison of changes throughout time, besides allowing the analysis of interactions with more than two participants. The sequential dependence does not need to be necessarily limited to the effect of the immediately precedent event and the methods of statistical analysis proposed could detect more complex patterns of interactive dependence between events within the same session and during different sessions (Lichtenberg & Heck, 1986; Wampold, 1986). The main critic to this strategy is that although it is sensitive to events that present repetitive patterns, important events that occur with less regularity can be "masked" by the statistical data (Wampold, 1986). Another critic is that this method does not allow the detection of qualitative differences in the data, such as the impact of determined behavioral events in the therapist-client interaction (Highlen, 1986). Even though it has this limitation the analysis proposals presented by these authors deserve to be studied in more detail, to investigate the viability of its use in the study of more complex interactions.

To identify the functional relations involved, it is also possible to do interviews, which would complement the data that was not obtained by means of observation. One of the biggest obstacles created by this type of strategy is the data source to which the researcher has access – the verbal report. The participant is the observer that reports to the researcher those aspects that according to his/her observation are relevant – and that does not necessarily coincide with the variables (or properties of the variables) which the researcher would need for the comprehension of the phenomenon. The researcher, in turn, guides the interview in a way to obtain information that is not contained in the participant's discourse and thus construct a more detailed portrayal of the described events. The problem is the researcher's investigation can also be under the control of other variables and not just the necessary information for the research. We know that the verbal report is vulnerable to various conditions that can lead to distortion (Rose, 1997) and in the case of the inevitability of this strategy, the analysis and the discussion of the data obtained must consider this limitation.

Conclusion

Luna (1997) observes that the clinic is a privileged environment for the development of research. In this situation we have access to verbal report data that, in another situation, would be very difficult to access. The researcher, in this research environment, can have a great control upon the context in which this type of behavior occurs, besides counting on "captive" research subjects that present themselves regularly for long periods of time, allowing repeated observations of the phenomenon in concern.

These characteristics of the environment which we face in the clinical research, combined with creative strategies of data systematization and analysis can provide clarifying studies about the concerning phenomenons in the clinical activity. The success of the enterprise of the analytical-behavioral clinic research will depend on the way that the methodological challenges are carried out. The nature of the phenomenon being dealt with in the clinic, as well as specificities of the analytical-behavioral theory in the interpretation of these phenomenons impose a search for new methodologies and the recognition of the reach and limitations of each method used. The research questions which we are able to answer should be carefully selected to guarantee the obtention of useful responses both for the theory and for the practice of the analytical-behavioral therapy. However, many steps have been taken towards comprehending the clinical interaction and the paths already open suggest promising investigation directions to be explored.

Bibliographical References

Almásy, C. (2004). *Efeitos da conseqüência na sessão terapêutica*. Dissertação de mestrado, Programa de Estudos Pós-Graduados em Psicologia Experimental: Análise do Comportamento, Pontifícia Universidade Católica de São Paulo. São Paulo.

Ary, D. & Suen, H. K. (1989). *Analyzing Quantitative Behavioral Observation Data.* Hillsdale, NJ: Lawrence Erlbaum.

Bänninger-Huber, E. & Widmer, C. (1997). *Patterns of interaction and psychotherapeutic change. 20th Ulm Workshop of Empirical Research in Psychoanalysis* [on line]. Recuperado de http://www.uni-saarland.de/fak5/krause/ulm97/eva.htm em agosto de 2008.

Baptistussi, M. C. (2001). *Comportamentos do terapeuta na sessão que favorecem a redução de efeitos supressivos sobre comportamentos punidos do cliente*. Dissertação de Mestrado, Programa de Estudos Pós-Graduados em Psicologia Experimental: Análise do Comportamento, Pontifícia Universidade Católica de São Paulo. São Paulo.

Barbosa, D. R. (2001) *Relação entre mudanças de peso e competência social em dois adolescentes obesos durante intervenção clínica comportamental*. Dissertação de mestrado, Programa de Pós-Graduação em Psicologia Clínica, Universidade de São Paulo. São Paulo.

Bardin, L. (1977). *Análise de Conteúdo*. Lisboa: Edições 70.

Beier, E. G. & Young, D. M. (1998). *The Silent Language of Psychotherapy.* New York: Aldine De Gruyter.

Bischoff, M. M. & Tracey, T. J. G. (1995). Client Resistance as predicted by therapist behavior: a study of sequential dependence. *Journal of Counseling Psychology, 42*, 487-495.

Brandão, F. S. (2003). *O manejo das emoções por terapeutas comportamentais*. Dissertação de Mestrado, Programa de Pós-Graduação em Psicologia Clínica, Universidade de São Paulo. São Paulo.

Britto, I. G. S., Oliveira, J. A., Sousa, L. F. D. (2003). A relação terapêutica evidenciada através do método de observação direta. *Revista Brasileira de Terapia Comportamental e Cognitiva, 5*(2), 139-149.

Brunnik, S. S. & Schroeder, H. E. (1979). Verbal therapeutic behavior of expert psychoanalytically oriented, Gestalt and behavior therapy. In M. Hersen, R. M: Eisler y P. M. Miller (Eds.): *Progress in behavior modification. Vol. I.* Nova York: Academic Press.

Callaghan, G. M. (2006). Functional Assessment of Skills for Interpersonal Therapists: The FASIT System. *The Behavior Analyst Today, 7* (3), 399-433.

Catania, A. C. (1992). *Learning*. Englewood Cliffs, NJ: Prentice Hall.

Chamberlaim, P., Davis, J. P., Forgatch, M., Frey, J., Patterson, G. R., Ray, J. *et al* (n.d.). *The therapy Process Code: A Multidimensional System for Observing Therapist and Client Interactions* [On line]. Recuperado de http://www.oslc.org/Training/pdf/tpcman.pdf em 03 de abril de 2004.

Chamberlain, P., Patterson, G., Reid, J., Kanavagh, K. & Forgatch, M. (1984). Observation of client resistance. *Behavior Therapy, 15*, 144-155.

Chequer, M. A. A. (2002). *Estudo metodológico da medida de fidedignidade entre juízes na categorização de respostas verbais-vocais de terapeuta e cliente em duas condições de trabalho.* Dissertação de mestrado, Programa de Estudos Pós-Graduados em Psicologia Experimental: Análise do Comportamento, Pontifícia Universidade Católica de São Paulo. São Paulo.

Cunha, W. H. A. (1975). Alguns princípios de categorização, descrição e análise do comportamento. *Ciência e cultura, 28*(1), 15-24.

Danna, M. F. & Matos, M. A. (1999). *Ensinando observação: uma introdução*. São Paulo: Edicon.

Donadone, J. C. (2004). *O uso da orientação em intervenções clínicas por terapeutas comportamentais experientes e pouco experientes*. Dissertação de mestrado, Programa de Pós-Graduação em Psicologia Clínica,Universidade de São Paulo. São Paulo.

Fagundes, A. J. F. M. (1992). *Descrição, definição e registro de comportamento*. São Paulo. Edicon. (Trabalho original publicado em 1976)

Fiorini, H. J. (1995). *Teorias e Técnicas de Psicoterapia*. Rio de Janeiro: Francisco Alves.

Garcia, M. R. (2001). *Uma tentativa de identificação de respostas de esquiva e da utilização do procedimento de bloqueio de esquiva através da análise de uma relação terapêutica.* Dissertação de Mestrado, Programa de Estudos Pós-Graduados em Psicologia Experimental: Análise do Comportamento, Pontifícia Universidade Católica de São Paulo. São Paulo.

Geerts, E. A. H. M. (1997). *An ethological approach of interpersonal theories of depression*. Tese de doutorado, Rijksuniversiteit Groningen. Holanda.

Glaser B. & Strauss, A. (1967). *The discovery of grounded theory.* Chicago: Aldine.

Greenberg, L. S., & Korman, L. (1993). Integrating emotion in psychotherapy integration. *Journal of Psychotherapy Integration, 3*, 249-265.

Greenberg, L. S. & Pinsof, W. M. (1986). Process Research: Current Trends and Future Perspectives. In L. S. Greenberg & W. M. Pinsof, *The Psychotherapeutic Process: A Research Handbook*. New York: Guilford.

Highlen, P. S. (1986). Analyzing patterns and sequence in counseling: reactions of a counseling process researcher. *Journal of Counseling Psychology, 33*(2), 186-189.

Hill, C. E. (1978). The development of a system for classifying counselor responses. *Journal of Counseling Psychology, 25*, 461-468.

Hill, C. E. (1986). An Overview of the Hill Counselor and Client Verbal Response Modes Category System. In L. S. Greenberg & W. M. Pinsof [falta identificar se Orgs. ou Eds.], *The Psychotherapeutic Process: A Research Handbook*. New York: Guilford Press.

Hill, C. E. (2001). *Helping Skills: The Empirical Foundation.* Washington, D. C: American Psychological Association.

Hill, C. E. & O'Grady, K. E. (1985). List of therapist intentions illustrated in a case study and with therapists of varying theoretical orientations. *Journal of Counseling Psychology, 32* (1), 3-22.

Hill, C. E. & O'Brien, K. M. (1999). *Helping Skills: Facilitating Exploration, Insight, and Action*. Washington, DC: American Psychological Association.

Hill, C. E., Corbett, M. M., Kanitz, B., Rios, P., Lightsey, R. & Gomez, M. (1992). Client behavior in counseling and therapy sessions: development of a pantheoretical measure. *Journal of Counseling Psychology, 39*, 539-549.

Hutt, S. J. & Hutt, C. (1974). *Observação direta e medida do comportamento*. São Paulo: EPU.

Ireno, E. M. (2007). *Formação de Terapeutas Analítico-Comportamentais: efeitos de um instrumento para avaliação de desempenho*. Dissertação de Mestrado, Programa de Pós-Graduação em Psicologia Clínica, Universidade de São Paulo. São Paulo.

Jonhston, J. M. & Pennypacker, H. S. (1993) *Strategies and Tactics of Behavioral Research*. New Jersey: Lawrence Erlbaum Associates.

Kazdin, A. (2002). *Methodological Issues & Strategies in Clinical Research*. Washington, DC: American Psychological Association.

Kazdin, A. E. & Nock, M. K. (2003). Delineating mechanisms of change in child and adolescent therapy: methodological issues and research recommendations. *Journal of Child Psychology and Psychiatry, 44* (8), 1116–1129.

Kovac, R. (2001). *Uma comparação entre duas propostas metodológicas para a análise de registros de uma interação verbal em uma situação aplicada: o setting clínico*. Dissertação de Mestrado, Programa de Estudos Pós-Graduados em Psicologia Experimental: Análise do Comportamento, Pontifícia Universidade Católica de São Paulo. São Paulo.

Lichtenberg, J. W. & Heck, E. J. (1986). Analysis of sequence and pattern in process research. *Journal of Counseling Psychology, 33*(2), 170-181.

Luna, S. V. (1997). O terapeuta é um cientista? In Banaco, R. A. (Org.). *Sobre Comportamento e Cognição*, 1. (pp. 305-313). Santo André: Arbytes.

Maciel, J. M. (2004). *Terapia analítico-comportamental e ansiedade: análise da interação verbal terapeuta-cliente*. Dissertação de Mestrado, Universidade Federal do Pará. Belém-PA.

Margotto, A. (1998). *Identificando Mudanças na Interação Verbal em Situação Clínica*. Dissertação de Mestrado, Programa de Pós-Graduação em Psicologia Experimental, Universidade de São Paulo. São Paulo.

Marinotti, M. (2000). *Categorização: agrupando comportamentos ou eventos em classes*. Texto elaborado para uso interno na disciplina 'observação como fonte de dados na análise do comportamento' do Programa de Pós-graduação em Psicologia Exsperimental: Análise do Comportamento, Pontifícia Universidade Católica de São Paulo. São Paulo.

Martins, P. (1999). *Atuação de Terapeutas Estagiários com Relação a falas sobre eventos privados em sessões de psicoterapia comportamental.* Dissertação de Mestrado, Programa de Pós-Graduação em Teoria e Pesquisa do Comportamento, Universidade Federal do Pará. Belém-PA.

Meyer, S. B. & Vermes, J. S. (2001). Relação terapêutica. In B. Rangé (Org.), *Psicoterapias cognitivo-comportamentais: um diálogo com a psiquiatria.* (pp.101-110). Porto Alegre: Artmed.

Meyer, S. B. & Donadone, J. (2002). O emprego da orientação por terapeutas comportamentais. *Revista Brasileira de Terapia Comportamental e Cognitiva, 4*(2), 79-90.

Moreira, S. B. S. (2001). *Descrição de algumas variáveis em um procedimento de supervisão de terapia analítica do comportamento.* Dissertação de Mestrado, Programa de Estudos Pós-Graduados em Psicologia Experimental: Análise do Comportamento, Pontifícia Universidade Católica de São Paulo. São Paulo.

Novaki, P. (2003). *Influência da experiência e de modelo na descrição de intervenções terapêuticas*. Dissertação de Mestrado, Programa de Pós-Graduação em Psicologia Clínica, Universidade de São Paulo. São Paulo.

Oliveira, S. C. (2002). *A Interpretação na terapia comportamental: Um estudo exploratório com uma terapeuta em treinamento.* Tese de Doutorado, Programa de Pós-Graduação em Psicologia, Universidade de Brasília. Brasília-DF.

Richardson, R. J. (1999). *Pesquisa Social: Métodos e Técnicas.* São Paulo: Atlas.

Rodrigues, M. E. (1997). Estudo exploratório – similaridades e diferenças na situação psicoterapêutica: comportamento não-verbal do psicoterapeuta em diferentes abordagens teóricas. *Interação, 1*, 95-122.

Rose, J. C. (1997). O Relato Verbal Segundo a Perspectiva da Análise do Comportamento: Contribuições Conceituais e Experimentais. In Roberto Alves Banaco (Org.), *Sobre*

Comportamento e Cognição, 1. (pp. 148-166). Santo André: Arbytes.

Russel, R. L. & Stiles, W. B. (1979). Categories for classifying Language in Psychotherapy. *Psychological Bulletin, 86*(2), 404-419.

Russell, R. L., & Trull, T. J. (1986). Sequential analyses of language variables in psychotherapy process research. *Journal of Consulting and Clinical Psychology, 54* (1), 16-21.

Sidman, M. (1976). *Táticas da pesquisa científica.* Brasília: Brasiliense.

Silva, A. S. (2001). *Investigação dos efeitos do reforçamento na sessão terapêutica sobre os relatos de eventos privados, relatos de relações entre eventos privados e variáveis externas e relatos de relações entre eventos ambientais e respostas abertas.* Dissertação de Mestrado, Programa de Estudos Pós-Graduados em Psicologia Experimental: Análise do Comportamento. Pontifícia Universidade Católica de São Paulo. São Paulo.

Skinner, B. F. (1993). *Ciência e Comportamento Humano*. Tradução de João Carlos Todorov e Rodolpho Azzi. São Paulo: Martins Fontes (trabalho original publicado em 1953).

Skinner, B. F. (1957). *Verbal behavior*. New York: Appleton-Century-Crofts.

Skinner, B. F. (1974). *About behaviorism.* New York: Vintage.

Souza Filho, R. C. (2001). *Assertividade e passividade na terapia analítico-comportamental: análise de um atendimento clínico em estágio supervisionado.* Dissertação de Mestrado, Programa de Pós-Graduação em Teoria e Pesquisa do Comportamento, Universidade Federal do Pará. Belém-PA.

Staddon, J. E. R. (1967). Asymptotic behavior: the concept of operant. *Psychological review, 74* (5), 377-391.

Stiles, W. B. (1999). Signs and voices in psychotherapy. *Psychotherapy research, 9*(1), 1-21.

Sturmey, P. (1996). *Functional Analysis in Clinical Psychology.* Londres: British Library.

Taccola, P. A. (2007). *A Psicoterapia Analítico-Funcional e relato de sentimentos: um estudo de caso quase experimental*. Dissertação de Mestrado, Programa de Pós-Graduação em Psicologia Clínica, Universidade de São Paulo. São Paulo.

Tickle-Degnen, L. & Rosenthal, R. (1990). The Nature of Raport and Its Nonverbal Correlates. *Psychological Inquiry, 1*(4), 285-293.

Tourinho, E. Z., Garcia, M. G. & Souza, L. M. (2003). *Avaliação ampliada de categorias para análise de verbalizações de terapeutas*. Projeto de pesquisa, Universidade Federal do Pará. Belém-PA.

Tunes, E. (1984). Considerações a Respeito dos Relatos Verbais Como Dados, *Psicologia, 10* (1), 1-10.

Vermes, J. S. (2000). *Uma avaliação dos comportamentos do terapeuta durante a sessão: relatos verbais do terapeuta e do cliente*. Pesquisa de iniciação científica, Pontifícia Universidade Católica de São Paulo. São Paulo.

Wampold, B. E. (1986). State of the art in sequential analysis: comment on Lichtenberg and Heck. *Journal of Counseling Psychology, 33* (2), 182-185.

Waxer P. H. (1978). *Nonverbal aspects of psychotherapy*. New York: Holt

Wiseman, H. & Rice, L. N. (1989). Sequential Analyses of Therapist-Client Interaction During Change Events: A Task-Focused Approach. *Journal of Counseling Psychology, 57*, 281-286.

Yano, Y. (2003). *Tratamento padronizado e individualizado no transtorno do pânico.* Tese de doutorado, Programa de Pós-Graduação em Psicologia Clínica, Universidade de São Paulo. São Paulo.

Zamignani, D. R. (2001). *Uma tentativa de caracterização da prática clínica do analista do comportamento no atendimento de clientes com e sem o diagnóstico de transtorno obsessivo-compulsivo*. Dissertação

de Mestrado, , Pontifícia Universidade Católica de São Paulo. São Paulo.

Zamignani, D. R. (2001). *Uma tentativa de caracterização da prática clínica do analista do comportamento no atendimento de clientes com e sem o diagnóstico de transtorno obsessivocompulsivo.* Dissertação de Mestrado, Programa de Estudos Pós-Graduados em Psicologia Experimental: Análise do Comportamento, Pontifícia Universidade Católica de São Paulo. São Paulo.

Received in: 10/24/2007
First editorial decision in: 11/24/2007
Final version in: 05/07/2008
Accepted for publication in: 03/26/2008