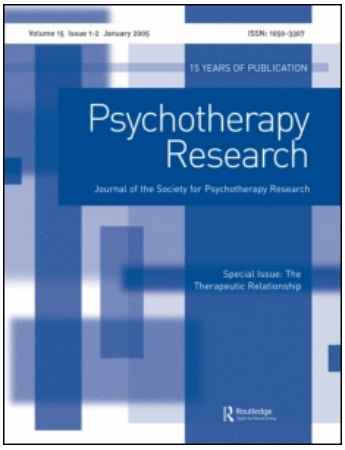

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Analysis of verbalized emotions in the psychotherapeutic dialogue during change episodes

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Abstract
As described by many theorists, emotional expressions contribute to the activation and regulation of personal emotional experiences and communicate something about internal states and intentions. These emotional expressions can be observed in the words used in our speech and nonverbal behaviors, even when nonverbal behaviors are synchronized to one's own speech or to the speech of others. Using a quantitative and qualitative methodology, this article reports a classification of verbal emotional expressions of both psychotherapists and patients in change episodes. Assuming that the emotions loaded in linguistic contents are explicit emotions shown by emotion words, this methodology allows for a complete and differentiating assessment of affective qualities in both patients and psychotherapists during the psychotherapeutic dialogue.

Keywords: communicative actions; emotions; change episodes; psychotherapeutic dialogue

Emotions have a critical role in the evolution, ontogeny, functioning, and adaptation to the physical and social environment (Izard, 2002). They define the quality of human experience and are tendencies with a great adaptive value, with evident manifestations at a physiological level through facial expressions, in subjective experience and information processing. Emotions appear before the evaluation of some previous events and facilitate prosocial behavior and creative problem solving (Fredrickson, 2003). The affective regulation system is internalized as an individual representation and as sociocultural and family norms, which can determine adaptive or dysfunctional behavior (Dreher, Mengele, Krause, & Kämmerer, 2001). Thus, emotions can be explained considering their profound influence on perception, cognition, and action, agreeing that they have an adaptive function, but can also be defined in terms of goal-oriented actions or of the individual's intention to influence a person.

Emotion: Definition and its Expression

There are some perspectives in emotion research that consider the term "basic" emotions (Ekman, 1999) in order to separate them according to specific characteristics (e.g., positive emotions vs. negative emotions). There is a perspective, typically associated with a Darwinian tradition, that conceptualizes the existence of a small number of emotions that are evolutionarily shaped in order to fulfill specific survival-benefit functions (Schröder, 2003), and an important finding in this perspective is the universality of some facial expressions of emotions, demonstrated by Ekman (1999). According to Ekman, at least six emotions (happiness, sadness, anger, fear, surprise, and disgust) are expressed in the face and are recognized in the same way in many different cultures. A second perspective has a constructivist point of view and considers emotions to have a universal quality to all species; in this view, emotions are believed to be learned irrespective of the culture type. Cornelius (2000) considers emotions as socially constructed patterns that are learned and culturally shared. They fulfill a social purpose and regulate interactions between individuals. Not only the expression of emotions, but emotions themselves, including the subjective experience, are seen as culturally constructed. This perspective recognizes the existence of biological foundations for emotions, but their importance is secondary in relation to the socially constructed mechanisms (Schröder, 2003).

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Finally, the third perspective considers that emotions developed from their adaptive value in the resolution of certain tasks that are fundamental for life (Ekman, 1999). In other words, each emotion is related to a direction that, in the course of the evolution, has turned out to be better than other solutions to obtain certain types of goals. For example, Stein and Trabasso (1992) concluded that in joy there is a goal that is maintained; in sadness, a fault to maintain a goal; in anger, an agent causing a loss of a goal; and in fear, an expectation to fail in obtaining a goal.

To consider an emotion as basic, it is necessary to make a distinction between emotions and other affective phenomena. Ekman (1999) defines eight characteristics that describe basic emotions: (a) They have universal specific signs; (b) they have a distinguishing physiology; (c) they appear as the result of an automatic and tuned valuation with equally distinguishing previous events; (d) they have a distinguishing appearance in their development; (e) they are also present in other primate types; (f) they have a fast beginning, a short duration, and a spontaneous occurrence; (g) they are accompanied by distinguishing thoughts or images; and (h) they allow the continuous conformation of subjective experience. These emotions can also differ from each other according to the subjective evaluation of each (e.g., fear, anger, and sadness are unpleasant emotions, whereas joy, pride, profit, and satisfaction are pleasant emotions), previous events, behavioral response, and the physiology of the person (Ekman, 1999).

The most concrete description of emotions is the use of emotion-denoting words or category labels, and human language has proven to be extremely powerful in producing labels for emotional status (Schröder, 2003). The capacity to use words to express different emotional experiences is related to automatic valuations and involuntary changes in expression and physiology, which also allow us to regulate that what we are thinking and feeling is expressed verbally at the same moment. However, it is not easy to access the subjective experience of others, because each emotion belongs to a family of related emotional states and not to a specific affection type (Ekman, 1999). Basic emotions generally refer to emotional contents that appear during psychotherapy sessions, narratives with emotional contents that took place in the past, or emotional contents whose occurrence is anticipated during the session. The truth is that emotional expression is an important aspect for the development and regulation of the psychotherapeutic relationship (Ekman, 1999).

Methods for Evaluating Emotions

Classical methods for evaluating emotions tend to focus on questionnaires or interviews (e.g., using videotaped sessions and asking participants to recall instant by instant what they felt at each moment during their performance). However, there are some studies about the structure of speech that analyze differences in linguistic style in spoken and written text (Anderson, Bein, Pinnell, & Strupp, 1999; Koch & Zumbach, 2002; Mergenthaler & Bucci, 1999; Westerman, Foote, & Winston, 1995), based on the assumption that basic emotions are usually used in a narrative way during the psychotherapeutic dialogue, with emotional contents that occurred in the past or emotional contents whose occurrence is anticipated during the session (Ekman, 1999).

In 1979, Cook developed a grammar matrix in which special emphasis is placed on the use of verb phrases as grammatical and semantic anchors of speech. Based on Cook's conceptualization, Pepinsky (1985) and Gervasio, Taylor and Hirshfield (1992) developed Computer Assisted Language Analysis Systems (CALAS and MacCALAS, respectively) for the analysis of the relationship between verb phrases and noun phrases and the roles that they play during interactive dialogue. These systems use a classification of the semantic nature of three verb types: stative, action, and process verbs. Stative verbs describe a noncausal relationship between persons or things or a state or property of a person or thing (e.g., *are, appear,* and *could*). Action verbs describe a causal relationship of the experiencer that is cognitive in nature (e.g., *bring, catch,* and *start*). Process verbs describe a causal relationship, without specifying an agent, in which something is happening to a person or a thing (e.g., *grow, live,* and *suffer*). Among the three types of verbs, the first one is the most frequently spoken (Gervasio et al., 1992), and they are divided into stative-experiencer-affective and stative-experiencer-cognitive verbs. This verb types are particularly important because of their relevance for affective and cognitive processes in psychological research.

Hölzer, Pokorny, Kächele, and Luborsky (1997) developed a computer system based on classification schemes and the codification of emotional words and have shown that psychotherapists include in their speech more words with an emotional content than patients. There is a significant correlation between the psychotherapist's approach and the presence of certain types of emotions and between psychotherapeutic outcome and the proportion of emotional words. Also, Anderson et al. (1999) examined the relationship between various linguistic measurements with outcome in verbalized affect segments during

therapy. Results indicated that in high-affect segments psychotherapists with poor-outcome cases used more cognitive verbs than psychotherapists with good-outcome cases. These findings are interesting because apparently psychotherapists differed from patients by speaking with a more differentiated pattern of speech in both high- and low-affect segments. It could be useful for the psychotherapists to be aware of their patterns of expression and to let this knowledge influence their treatments (Ekman, 1999).

Although there are significant differences between the semantics and the prosody of verbal emotional expressions, it is difficult to separate what is said from how it is said, because these dimensions are not completely independent. Thus, the concept of Referential Activity (RA) becomes useful because it relates the ability to integrate emotions with the verbal symbolic code, that is, with the words that give them meaning (Bucci, 1992, 1997), from the different codes of information processing raised in the theory of multiple codes (subsymbolic processing and verbal and nonverbal symbolic processing). It has been observed that RA varies during the therapeutic process, maintaining low levels when patients have not yet integrated experience to a linguistic form and rising from a specific psychotherapeutic process that fosters a better link between emotions and the words that give them meaning (Bucci, 1997; Stigler & Pokorny, 2001). Apparently, the description of events with a precise, specific, and creative language by patients is positively correlated with psychotherapeutic change (Mergenthaler & Bucci, 1999; Roussos & Leibovich, 2002). Thus, the quality of the content of speech and prosodic language seem to provide different types of information about patients' emotional involvement during therapy. Patients with lower levels of emotional involvement have speech that is marked by narratives containing many descriptions of external and impersonal events, whereas the speech of those with higher levels of emotional involvement is characterized by descriptions of personal details and results of treatment success (Mohr, Shoham-Salomon, & Beutler, 1991; Rudkin, Llewelyn, Hardy, Stiles, & Barkham, 2007). This idea seems to be supported by the results of Watson (1996), who analyzed the relationship among vivid description, emotional expression, and problem solving during the therapeutic session. Watson concluded that (a) successful sessions, as opposed to unsuccessful ones, are characterized by high levels of RA when patients describe problematic situations followed immediately by a specific emotional reaction and (b) patients typically report an emotional change after making vivid descriptions of the problem situations.

Importance of Emotions in Psychotherapy Settings

In psychotherapy process research, there is an increased interest in studying the process of configuration of human relationships. Emotions are exchanged through verbal expressions, allowing a specific form of relationship between patient and psychotherapist to develop. Research has shown that successful treatments are distinguished by specific characteristics of affective exchange and emotional experience in the psychotherapeutic dyad (Dreher et al., 2001). During the psychotherapeutic dialogue, patients produce specific affective reactions in their psychotherapists, while psychotherapists show their patients that their emotional expressions have had some type of consequence in the interaction (Dreher et al., 2001).

The idea of emotion as inherently adaptable and motivational emphasizes the importance of emotions for any relationship. As for the therapeutic relationship, the theory of emotions suggests six principles to develop preventive interventions: the utilization of positive and negative emotions, emotions modulation as a mediator of emotion utilization, emotion patterns in states and traits, different processes of emotion activation, emotion communication in early life, and the development of connections for the modular and relatively independent emotion and cognitive systems (Izard, 2002). Despite the fact that there is a strong tendency in research to consider emotions as part of the cognitive processes, or as a dependent phenomenon of these, emotions contain certain types of information different from any other because they are experienced subjectively (Izard, 2002). The automatic emotional response already has occurred before one can stop it, and it is adaptive to respond quickly in some situations, whereas at other times better functioning results from the integration of cognition into emotional response (Greenberg & Bolger, 2001).

The aim of this study is to describe and compare the verbalized emotions of both psychotherapists and patients, in psychotherapeutic dialogue during change episodes, and through the psychotherapeutic process. In an initial stage of the study, emotional expressions were described using a discovery-oriented qualitative methodology (Hill, 1990; Mahrer & Boulet, 1999) because it made it possible to discover what took place in the sessions reviewed, with the objective of developing theoretical models through the formulation and contrast of hypotheses that do not come from preestablished theories. In a second stage, a quantitative methodology was used to analyze the distribution of the emotional expressions during the psychotherapeutic process. Several

hypotheses guided this study. First, the discourse of psychotherapists and patients will be characterized by the presence of certain kinds of communicative actions. Psychotherapists will most frequently use communicative actions intended to explore and clarify the other's emotion, whereas patients will most frequently use communicative actions intended to deepen their own emotion. Second, verbal emotional expressions will be characterized by the presence of specific types of basic emotions and will be different depending on the role of each participant. Third, the emotional contents of verbal expressions will be different in the two psychotherapeutic processes studied, because they will be more related to the main problem presented by each patient. Fourth, there will be differences in the emotional expressions according to whom they are referred. We assume that the verbal emotional expressions of patients will be referred to themselves and to others not present in session, and the verbal emotional expressions of psychotherapists will be referred to the ones expressed or narrated by the patients. Fifth, there will be differences between patient and psychotherapist depending on the valence of the verbal emotional expressions. Sixth, there will be similarities and differences in the way communicative actions, basic emotions, emotional contents, and their valence and reference evolve throughout the different phases of the psychotherapeutic processes. Specifically, we expect an increase of positive verbal emotional expressions and a decrease of negative ones throughout the psychotherapeutic process.

Method

Sample

Two individual psychotherapies cases conducted in Chile were analyzed. Both psychotherapeutic processes were scheduled in a range of 18 to 20 treatment sessions, one session per week, over a period of 4 to 5 months and corresponding to short-term psychodynamic psychotherapies characterized by the exploration of a focus, which can be identified by psychotherapists and patients. Both psychotherapists were male psychiatrist- psychoanalysts and both patients were female. The presenting problem of Patient A (38 years old) was the development of mourning for separation and recent losses, whereas for Patient B (43 years old) it was the expression of needs, the desire to strengthen autonomy, and increase quality relationships. Both psychotherapeutic processes were chosen because they had the same approach (psychoanalytic) and the same modality (individual) and both patients had a similar diagnosis.

In the current study, we decided to analyze the full range of sessions of both psychotherapeutic processes to delimit all the change episodes in each one. Specifically, we analyzed 38 change episodes (14 for Therapy A, 24 for Therapy B) included in 39 sessions (18 for Therapy A, 21 for Therapy B). The speaking turns of both psychotherapists and patients during these change episodes were analyzed, reaching a total of 433 speaking turns (230 for Therapy A, 203 for Therapy B).

Procedure and Measurements

Psychotherapy outcome. To assess change, the Outcome Questionnaire (OQ-45.2) was given to both patients to measure their progress throughout the psychotherapeutic processes. This self-administered questionnaire was developed by Lambert, Hansen, Umpress, Lunnen, Okiishi, and Burlingame (1996) and validated in the Chilean context by Von Bergen and de la Parra (2002). A high total score indicates high discomfort in quality of life as expressed in symptoms, interpersonal relationships, and social role. The interpretation of the scores is based on a cutoff score derived by comparing a community sample with clinical samples, which separates functional and dysfunctional populations (cutoff score = 73 for the Chilean context) and on the reliable change index (RCI), which determines whether the change exhibited by an individual in treatment is clinically significant (RCI = 17 in the Chilean context; Jacobson & Truax, 1991). Both psychotherapeutic processes studied were considered successful, because both patients had surpassed the RCI for the Chilean population between pre- and posttreatment. Thus, Patient A started therapy with a total OQ-45.2 score of 68, finishing with 48.4 (RCI = 19.6), and Patient B started with a total OQ-45.2 of 111, finishing with 91 (RCI = 20). Therefore, both patients showed an improvement above the RCI during psychotherapy in their total scores (between the beginning and the end of the psychotherapeutic process), although Patient A started the psychotherapy below the cutoff score and Patient B above the cutoff score. Based on this, it was possible to conclude that both patients showed a significant change.

Demarcation of change episodes and speaking turns. Currently, psychotherapy research is emphasizing the analysis of psychotherapeutic sessions, specifically the identification and description of those segments that, in accordance with specific criteria, stand out in the therapeutic process as significant or relevant for change. Bastine, Fiedler, and Kommer (1989) define a change episode as the interval of

time, segment, or sequence within one or many therapeutic sessions where significant changes take place in order to analyze them in relation to changes, their previous conditions, and effects. Under these considerations, the present study analyzes the communicative actions of psychotherapists and patients and their corresponding emotional content within change episodes.

The two psychotherapeutic processes were video- and audio-taped and observed through a one-way mirror by expert observers trained in the use of a protocol developed to guide and facilitate the observation and coding of change moments, which is understood as a change in the patient's subjective theories (Groeben & Scheele, 2000) and detected using Krause et al.'s (2007) hierarchy of Generic Change Indicators List, which makes it possible to establish the boundaries of a change episode according to a thematic criteria. The sessions were listed in chronological order and transcribed in order to facilitate the subsequent demarcation of the change episodes. To demarcate a change episode, the change moment was first identified based on its theoretical correspondence with the generic change indicators. This change moment corresponds to the end of the change episode. Then, according to a thematic approach, the session was reviewed backward in order to identify the beginning of the topic discussed by patients and psychotherapists that deals with that specific change moment. Finally, the change episodes were broken down into speaking turns, which constituted a discourse unit. A speaking turn was defined as all the words expressed by psychotherapist and patient in their turn during the psychotherapeutic dialogue (e.g., roughly a sentence of dialogue).

Communicative actions and verbal emotional expressions. We analyzed communicative actions and verbal emotional expressions within each speaking turn of both patient and psychotherapist and classified them according to the basic emotions they expressed and their emotional contents, irrespective of the grammatical form (e.g., nouns, adjectives, or verbs). We understand communicative actions as those linguistic actions that a person performs when speaking (e.g., explore an emotion or narrate an emotion). We propose one level of analysis related to the explicit presence of emotion in speech, in contrast to the implicit presence of emotion, which is associated with the emotional climate during the session. This second level was not considered for the analyses in this article. The analysis of each speaking turn was conducted in three successive stages. The first involved the coding of each speaking turn of the first change episode through a process of intersubjective consensus between researchers.[1] Based on this, a preliminary list of verbal emotional expressions was built, leading to coding of the remaining change episodes using the preliminary list of emotional expressions, open to the possibility of the emergence of new emotions (Stage 2), and revision of the final list of verbal emotional expressions in order to achieve a final consensual validation (Stage 3).

For the classification of verbal emotional expressions, Ekman's (1999) emotion classification was used, considering that each basic emotion denotes a family of related emotions. Through a qualitative analysis, we identified 74 emotional words, and to simplify this, we classified these emotional words according to the basic emotion classification (Table I). The final version of the emotional contents list contains 20 positive and 50 negative emotion categories as well as four categories with an unspecific valence. By applying this procedure, we ensured that all words of the transcripts that were judged to have an emotional connotation were added to the list. Nevertheless, even when it was not an objective of this study, we found similarities with Cook's emotional words, used by Anderson et al. (1999) to understand how the language within the patient–psychotherapist dialogue relates to outcomes as well as to theoretically based process measures. This system allows one to differentiate the patient's emotional profile as an indicator of the subjective affective significance (Leising et al., 2003).

Finally, we classified these verbal emotional expressions using only two of the three independent intersecting dimensions defined by Dahl, Hölzer, and Berry (1992): reference and valence. We defined the first dimension, reference or orientation, as that which indicates whether the emotional expression refers to the self, to the other present in the session, or to another person out of the session. The second dimension, valence, refers to the quality of pleasantness or unpleasantness of the emotion (Hölzer et al., 1997).

Hypotheses

We investigated the following hypotheses:

Hypothesis 1. Psychotherapists will most frequently use communicative actions to explore and clarify the emotion of the patient, whereas patients will most frequently use communicative actions to deepen their own emotion.

Hypothesis 2. Verbal emotional expressions will be characterized by the presence of specific types of basic emotions, and there will be differences depending on the role of patient or psychotherapist.

Hypothesis 3. The emotional contents of verbal expressions will be related to the main problem presented by each patient; therefore, there will be

Table I. Emotional Contents Included in the Basic Emotions and their Valence

Valence	Basic emotions	Emotional contents
Pleasantness	Happiness	Enthusiasm, gratefulness, happiness (happy, contentment), avidity, luck, passion, love (adore), commotion, pride, confidence, superiority, satisfaction, affection, hope, delicate, relax, (tranquility, comfortable), calm, joy, tender and security.
	Sadness	Insult, loneliness (isolated), deception (defrauded), offence (critic), neglect (abandonment), emptiness, boring, compassion, mercy, nostalgic (lowered), sadness (depressed), desperation, vulnerability (sensible), to miss, hopelessness, suffering (pain) and bitterness.
Unpleasantness	Fear	Fear, tension, afraid, nervous (anxious), regret, scare (terror), shame, guilt, insecurity (inhibition, repression), submissiveness (annulled), worried, standstill (trapped) and distress (anxiety).
	Anger	Annoyance, rejection, resigns, jealousy, resentment, hatred, bad-tempered, distrust,envies, rebel, impatience, scorn, anger (uncontrolled), wrath, disgust, exhaustion (tired), demand, (pressed, criticized), over-demand, indifference (coldness) and frustration.
Other	Neutral	Curiosity, skepticism (doubt), concern-unconcern and desire.

Note. The words in parentheses are synonymous with the previous emotional content.

differences between the two psychotherapeutic processes analyzed.

Hypothesis 4. Verbal emotional expressions of patients will be referred to themselves and to others not present in the session, whereas verbal emotional expressions of psychotherapists will be referred to the ones expressed or narrated by the patients.

Hypothesis 5. There will be differences between patient and psychotherapist depending on the valence of the verbal emotional expressions.

Hypothesis 6. There will be similarities and differences in the way communicative actions, basic emotions, emotional contents, and their valence and reference evolve throughout different phases of the psychotherapeutic processes.

Statistical Model

For the classification of the verbal emotional expressions, a discovery-oriented qualitative methodology was used. In a second stage, a quantitative methodology (e.g., frequencies and percentages) was used for analyzing the distribution of the verbal emotional expressions during the psychotherapeutic processes and according to the role during the psychotherapeutic dialogue. The statistical method used was a chi-square statistical metric to compare the distribution of all the studied variables. Also, we used this method to analyze the variables in different phases of the psychotherapeutic processes, but in some cases we only used a descriptive analysis because of the small amount of verbal emotional expressions in some cells.

Results

A total of 13,277 pronounced words were found in Psychotherapeutic Process A: 8,029 corresponded to the patient (60.5%) and 5,248 to the psychotherapist (39.5%). Something similar happened with Psychotherapeutic Process B, in which a total of 14,857 pronounced words were found: 9,083 corresponded to the patient (61.1%) and 5,774 corresponded to the psychotherapist (38.9%). Of these pronounced words, a total of 13,071 (98.5%) and 14,677 (98.8%) nonemotional expressions were found in A and B, respectively. A total of 206 (1.5%) verbal emotional expressions were found in A (111 [53.9%] for the psychotherapist, 95 [46.1%] for the patient) compared with 180 (1.2%) in B (90 [50%] for both psychotherapist and patient. It was possible to conclude that both processes were similar in this aspect.

Communicative Actions, Basic Emotions, and Emotional Contents within Change Episodes

Results show that it was possible to distinguish four types of communicative actions: (a) to show an emotion of another (to reflect an emotion to the other person, e.g., "Maybe you were inhibited or repressed with him"), (b) to explore an emotion (to inquire emotional components, e.g., "What do you feel when you remember this?"), (c) to express an emotion (to experience an emotion when speaking, e.g., "I am sad right now"), and (d) to narrate an emotion (to recount an affective situation of the past, e.g., "I had a lot of fear when I was a child"). The communicative actions most frequently used by psychotherapists and patients during the psychotherapeutic dialogue were as follows: showing an emotion of another (40.6%), followed by narrating an emotion (33.7%) and expressing an emotion (17.8%), whereas exploring an emotion (7.9%) was less frequent. With respect to the basic emotions, the most frequent one was anger (30.70%) and fear (30.5%), followed by sadness (20.8%), happiness (10.9%), and, finally, the neutral basic emotions

(7.2%). We coded an emotional expression as neutral when it did not fit in any of the previous categories, that is, when they could at times be perceived as positive emotions and at other times as negative ones (e.g., concern, unconcern, and doubt). The emotional contents were annoyance (11.3%), anger (14.8%), demand (14.8%), suffering (6.2%), scare (6.0%), sadness (5.8%), submissiveness (5.1%), afraid (4.8%), guilt (4.2%), and concern (3.7%). The remaining percentage was shared by a great variety of emotional contents, but with less frequency.

Communicative actions and basic emotions. After the analysis of communicative actions and basic emotions in both psychotherapeutic processes, it was possible to conclude that they were similar because they presented approximately the same proportion of communicative actions, $\chi^2(3, N=433)=7.119$, $p=.068$, and the same proportion of basic emotions, $\chi^2(4, N=433)=6.808$, $p=.146$. However, the differences appear when comparing the words pronounced by patients and psychotherapists (Table II). Patients used more communicative actions aimed at narrating an emotion and expressing an emotion, whereas psychotherapists used more communicative actions intended to showing an emotion and exploring an emotion of the patient, $\chi^2(3, N=433)=364.069$, $p=.000$. Therefore, Hypothesis 1 was confirmed: Psychotherapists most frequently use communicative actions to explore and clarify the emotion of the patient, whereas patients most frequently use communicative actions to deepen their own emotion.

In relation to basic emotions, there was also an association between the roles of patient and psychotherapist, $\chi^2(4, N=433)=36.782$, $p=.00$. When analyzing each psychotherapeutic process, this association was only maintained statistically in

Table II. Communicative Actions and Basic Emotions according to the Psychotherapeutic Process and Role

Psychotherapeutic process A					
		Role			
		Patient		Psychotherapist	
Categories	Subcategories	f	%	f	%
Communicative actions	To show an emotion	1	0.9	105	86.1
	To express an emotion	35	32.4	1	0.8
	To explore an emotion	0	0.0	14	11.5
	To narrate an emotion	72	66.7	2	1.6
		108	100.0	122	100.0
Basic emotions	Happiness	14	13.0	5	4.1
	Sadness	29	26.9	26	21.3
	Fear	26	24.1	48	39.3
	Anger	29	26.9	39	32.0
	Neutral	10	9.3	4	3.3
		108	100.0	122	100.0
Psychotherapeutic process B					
		Role			
		Patient		Psychotherapist	
Categories	Subcategories	f	%	f	%
Communicative actions	To show an emotion	5	4.4	65	72.2
	To express an emotion	39	34.5	2	2.2
	To explore an emotion	2	1.8	18	20.0
	To narrate an emotion	67	59.3	5	5.6
		113	100.0	90	100.0
Basic emotions	Happyness	25	22.1	3	3.3
	Sadness	14	12.4	21	23.3
	Fear	25	22.1	33	36.7
	Anger	35	31.0	30	33.3
	Neutral	14	12.4	3	3.3
		113	100.0	90	100.0

Note. f = Frequency; % = Percentage (N = 433).

Patient B, $\chi^2(4, N=203)=25.007$, $p=.000$. In both psychotherapeutic processes, psychotherapists showed the same proportion of the basic emotions of fear, anger, and sadness in their speech. However, Patient A had the same proportion of anger and sadness, followed by fear, whereas Patient B had a greater proportion of anger followed by the same proportion of fear and happiness. Therefore, Hypothesis 2 was confirmed: There are differences in the basic emotions verbalized during the speech, depending on the role of patient or psychotherapist.

There was also an association between communicative actions and basic emotions during psychotherapy, $\chi^2(12, N=433)=45.975$, $p=.000$; nevertheless, it was not possible to associate this with the role played. Patients used communicative actions aimed at narrating and expressing the five basic emotions (happiness, sadness, fear, anger, and neutral), whereas psychotherapists used communicative actions intended to show an emotion using the five basic emotions and tended to explore the basic emotions of sadness and neutral.

Emotional contents within change episodes. There were significant differences in both psychotherapeutic processes in relation to the contents of the verbal emotional expressions, $\chi^2(46, N=433)=135.564$, $p=.000$. Nonetheless, there was an association between emotional contents and the role played during psychotherapy, $\chi^2(46, N=433)=135.032$, $p=.000$. As shown in Table III, patients of both psychotherapeutic processes used more frequently verbal expressions whose emotional contents were annoyance (A = 15.7% and B = 15.9%), followed by suffering, concern, and sadness in the case of Patient A and the emotional contents of anger, skepticism, and scare in the case of Patient B. On the other hand, Psychotherapist A used verbal expressions whose emotional contents were demand, submissiveness, and afraid, whereas Psychotherapist B used verbal expressions whose emotional contents were anger, scare, suffering, and afraid. Therefore, Hypothesis 3 was confirmed: There were differences between the two psychotherapeutic processes because it seems that emotional contents of verbal expressions are related to the main problem presented by each patient.

Reference and valence of the verbal emotional expressions during change episodes. On the basis of the previous analysis, we also analyzed emotional contents according to the following two levels: (a) the reference of the emotional contents (if the verbal emotional expression referred to the self, to the other person present in the session, or to another person out of the session) and (b) the valence of the emotional contents (if the verbal emotional expressions were pleasant or unpleasant). As seen in Table IV, the greatest percentage of emotional expressions present in the speech of both psychotherapists and patients were referred to him- or herself (42.3%) and to the other present in session (42.3%), whereas a lower proportion was referred to another not present in the session (15.5%). On the other hand, the valence of the verbal emotional expressions more frequently used was unpleasantness (81%), followed by pleasantness (10.9%) and finally others that do not fit in any of the previous categories (7.4%). This category coincides with the neutral basic emotions and was used for those emotional expressions with an unspecific valence (e.g., perceived as positive at times and as negative at others). Only emotional expressions with a clear valence were tagged as such.

The analysis of the reference and the valence of the verbal emotional expressions of the two psychotherapeutic process studied allows us to conclude that both processes were similar: (a) They showed approximately the same proportions of verbal emotional expressions referred to him- or herself, to the other present in the session, and to another person not present in the session, $\chi^2(2, N=433)=2.610$, $p=.271$, and (b) they showed a higher percentage of verbal emotional expressions related to unpleasantness, $\chi^2(2, N=433)=5.079$, $p=.079$. Also, there was an association between the reference of verbal emotional expressions and the role played by each participant during the psychotherapy, $\chi^2(2, N=433)=292.420$, $p=.000$. In both psychotherapeutic processes, psychotherapists frequently used verbal emotional expressions referred to the patients, whereas patients used verbal emotional expressions referred to themselves. Therefore, Hypothesis 4 was confirmed: Verbal emotional expressions of patients are referred to themselves and to others not present in the session, whereas verbal emotional expressions of psychotherapists are referred to the ones expressed or narrated by the patients.

One of the most interesting results was the association between communicative actions and the reference of the verbal emotional expressions in the speech of psychotherapists and patients and how these results were also associated with the role during psychotherapy. In the case of patients, most of the communicative actions aimed at narrating an emotion were referred to another person not present in session followed by those referred to themselves. The communicative actions aimed at expressing an emotion were also referred to themselves, but patients were also able to show emotions to the psychotherapist. Psychotherapists used communicative actions referred to the patient during sessions, $\chi^2(6, N=221)=89.858$, $p=.000$, and to another

Table III. Emotional Contents according to the Psychotherapeutic Process and Role

Psychotherapeutic process A					
		Role			
		Patient		Psychotherapist	
Categories	Subcategories	f	%	f	%
Emotional contents	Relax	8	7.4		
	Loneliness	5	4.6	8	6.6
	Sadness	9	8.3	9	7.4
	Suffering	10	9.3	5	4.1
	Afraid			11	9.0
	Scare			5	4.1
	Guilt	6	5.6		
	Insecurity			5	4.1
	Submissiveness			15	12.3
	Annoyance	17	15.7	7	5.7
	Anger			8	6.6
	Demand	7	6.5	17	13.9
	Concern	10	9.3		
	Others	36	33.3	32	26.2
Psychotherapeutic process B					
		Role			
		Patient		Psychotherapist	
Categories	Subcategories	f	%	f	%
Emotional contents	Confidence	5	4.4		
	Relax	7	6.2		
	Offense			6	6.7
	Sadness	5	4.4		
	Suffering			9	10.0
	Afraid			9	10.0
	Fear	6	5.3		
	Scare	7	6.2	12	13.3
	Guilt	5	4.4		
	Standstill			5	5.6
	Annoyance	18	15.9	7	7.8
	Bad-tempered	5	4.4		
	Anger	9	8.0	14	15.6
	Demand			7	7.8
	Skepticism	8	7.1		
	Others	32	34.0	21	23.2

Note. This table shows the emotional contents with a frequency greater than or equal to five.
The remaining emotional contents with a lower frequency were included in the category "others" (N = 433).

not present in the session. They also explored emotions related to others not present in the session and emotions referred to themselves, $\chi^2(6, N = 212) = 63.033$, $p = .000$, but less frequently.

In relation to the valence of emotional expressions, there is also an association with the role played, $\chi^2(2, N = 433) = 34.920$, $p = .000$. Psychotherapists concentrate on unpleasant emotions like patients do, but they eventually show other emotions (see Table IV). Therefore, Hypothesis 5 was also confirmed: There are differences between patients and psychotherapists depending on the valence of the verbal emotional expressions.

An association between communicative actions and the valence of the verbal emotional expressions during psychotherapy was found, $\chi^2(6, N = 433) = 35.591$, $p = .000$, but not with the role. Thus, patients from both psychotherapeutic processes narrated and expressed verbal emotional expressions with different valences (pleasantness, unpleasantness, and others), whereas psychotherapists focused, on the one hand, on showing emotions with a pleasant and unpleasant valence that were typical of the patient and, on the other hand, on exploring those emotions with an unspecific valence.

Table IV. Reference and Valence of Verbal Emotional Expressions according to the Role

		Role				Total
		Patient		Psychotherapist		
Categories	Subcategories	f	%	f	%	%
Reference	Referred to him/herself	170	76.9	13	6.1	42.3
	Referred to other	8	3.6	175	82.5	42.3
	Referred to other not	43	19.5	24	11.3	15.4
		221	100.0	212	100.0	100.0
Valence	Pleasantness	39	17.6	8	3.8	10.9
	Unpleasantness	157	71.0	197	92.9	81.8
	Other(*)	25	11.3	7	3.3	7.3
		221	100.0	212	100.0	100.0

Note. f = Frequency; % = Percentage.
*The subcategory "others" includes the verbal emotional expressions that do not fit into any of the previous subcategories (N = 433).

Analysis of Communicative Actions, Basic Emotions, Valence, and Reference throughout the Psychotherapeutic Process

It was possible to analyze the distribution of communicative actions, basic emotions, valence, and reference throughout the psychotherapeutic process, because both processes were similar in terms of these categories. To achieve this, the processes were divided into three phases: The initial phase of the psychotherapeutic process included the first three episodes (A, change episodes 1–3; B, change episodes 1–3), and the final phase included the last three episodes (A, change episodes 12–14; B, change episodes 22–24), whereas the middle phase included the four episodes equidistant from the initial and final phases (A, change episodes 6–9; B, change episodes 11–14).

As shown in Figure 1, there were no differences in the way communicative actions and the valence of the verbal emotional expressions evolved throughout the psychotherapeutic process. The communicative actions more frequently performed by psychotherapists (to explore and show an emotion of another) and patients (to express and narrate an emotion) had a similar proportion throughout the different phases of the psychotherapeutic process, $\chi^2(2,\ N=159) = 2.134$, $p=.344$, even when there was a tendency to decline during the final phase. This also happened with the valence of the emotional expressions verbalized by psychotherapists and patients, which were maintained in a similar proportion throughout the different phases of the psychotherapeutic process, $\chi^2(2, N=159) = 1.823, p=.402$. Therefore, Hypothesis 6 was confirmed: There were similarities in the way communicative actions and the valence of verbal emotional expressions evolved throughout different phases of the psychotherapeutic process. However, this finding is different than what was expected, that is, an increase of positive verbal emotional expressions and a decrease of negative expressions throughout the psychotherapeutic process.

Also, however, there were differences in the way basic emotions and the reference of verbal emotional expressions evolved throughout the psychotherapeutic process (see Figure 1). The basic emotions verbalized by patients and psychotherapists had different proportions throughout the various phases of the psychotherapeutic process, $\chi^2(6,\ N=159) = 22.210$, $p=.001$. During the initial phase of the process, a greater frequency of expressions related to the basic emotion of fear was observed, followed by expressions related to the basic emotions of anger. During the middle phase of the process, there was an important decrease of the verbal expressions related to the basic emotion of fear and an important increase of the verbal expressions related to the basic emotion of anger. During the final phase of the process, a greater frequency of expressions related to the basic emotion of sadness was observed.

In relation to the reference of the emotional expressions verbalized by patients and psychotherapists during the psychotherapeutic dialogue, differences in the way they evolved throughout the different phases of the process were also found, $\chi^2(4,\ N=159) = 18.609$, $p=.001$ (see Figure I). During the initial phase of the process, there was a greater frequency of emotional expressions verbalized by psychotherapists referring to the other present in the session (patient), followed by emotional expressions verbalized by patients referring to themselves. During the middle phase of the process, there was an increase of emotional expressions verbalized by patients that referred to themselves, followed by emotional expressions verbalized by psychotherapists referred to the other person present in the session (patient) as well as a significant decrease of emotional expressions referred to

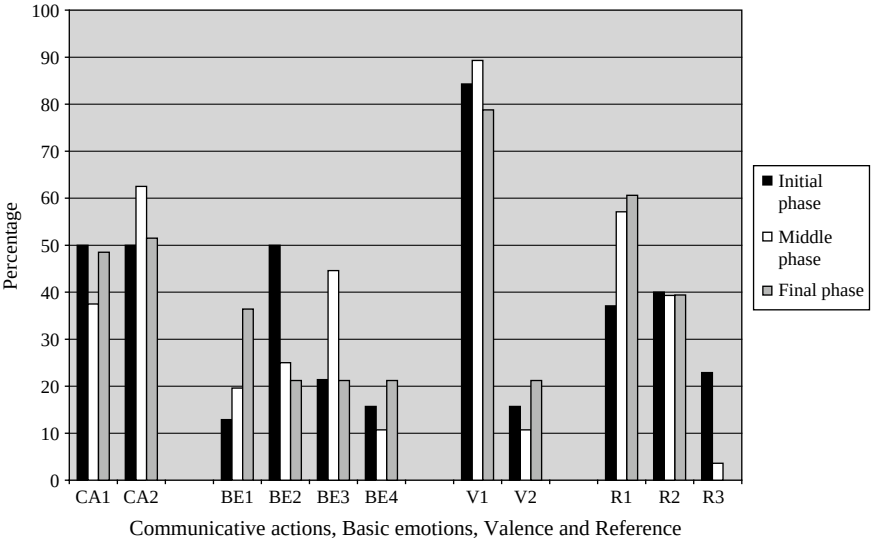

Figure 1. Communicative actions, basic emotions, valence, and reference according to the phases of the psychotherapeutic process.
Note. CA_1 = to explore and to show an emotion of other; CA_2 = to express and to narrate an emotion; BE_1 = sadness; BE_2 = fear; BE_3 = anger; BE_4 = happiness and neutral emotions; V_1 = unpleasantness; V_2 = pleasantness and others; R_1 = referred to him-/herself; R_2 = referred to the other present in session; R_3 = referred to other not present in session ($N = 433$).

another not present in the session (which was maintained until the end of the process). During the final phase of the psychotherapeutic process, there was a greater frequency of emotional expressions verbalized by patients referring to themselves, followed by emotional expressions verbalized by psychotherapists referring to the other present in the session (patient). Therefore, Hypothesis 6 was again confirmed: There were differences in the way basic emotions and reference of verbal emotional expressions evolved throughout different phases of the psychotherapeutic process.

Finally, even when it was not possible to apply a statistical analysis to compare the emotional contents throughout different phases of both psychotherapeutic processes because of the low frequency of some of these elements, it was possible to observe how emotional contents were distributed during different phases. Psychotherapeutic Process A presented a higher frequency of verbal expressions with emotional contents such as submissiveness (11.9%), shame (10.2%), and demand (10.2%) at the initial phase; annoyance (18.6%), demand (14.0%), suffering (14.0%), and anger (11.6%) at the middle phase; and sadness (34.8%) at the final phase. On the other hand, Psychotherapeutic Process B presented a high frequency of verbal expressions with emotional contents such as anger (27.3%) at the initial phase, scare (23.1%), demand (15.4%), and afraid (15.4%) through the middle phase; and gratefulness (20.0%), happiness (20.0%), and skepticism (20.0%) toward the final phase.

Discussion

In this study, we described and classified verbal emotional expressions in psychotherapeutic dialogue on the basis of the analysis of change episodes. The relevance of studying emotional expressions within these episodes resides in the importance they have for the psychotherapeutic change. This makes it possible to reveal important information about the structure of the psychotherapeutic process and to focus on patterns of interactions and communication that contribute to patients' progress through proximal outcomes (Russell, Jones, & Miller, 2007). Reducing the hundreds of words that represent affective states to a fairly small number of categories that seemed to be fairly comprehensive was a difficult task, not only because there was a small, but assorted, quantity of emotional words, but also because each of them had different characteristics, like their valence or reference. The capacity to represent emotional experience in words changes many aspects of emotional experience (Ekman, 1999). With regard to this, we developed a system that assumes that the emotions payload in linguistic contents is made up of explicit emotions shown by emotion words, which can be used to describe how words with an affective meaning are being used within a sentence. It allows for a complete and differentiating assessment of affective qualities in both patients and psychotherapists during the psychotherapeutic dialogue. This system resulted in a list of emotional contents using a similar methodology as that of Leising, Rudolf, and Grande (2000)

for the development of the clinical emotions list as a way to assess and differentiate patients' emotional profile as an indicator of subjective affective significance (Leising et al., 2003).

We were able to demonstrate that both psychotherapeutic processes analyzed were very similar not only in the quantity of verbal emotional expressions present but also in the communicative actions found in the speech of each participant, the basic emotions types, and their reference and valence. However, the emotional contents of verbal expressions were different among patients and not among psychotherapists, which leads us to hypothesize that the contents of verbal emotional expressions were related to the dynamics or main problem presented by each patient. It was possible to confirm all the hypotheses when chi-square reached statistical significance; still, we discuss in length the results concerning the valence of verbal emotional expressions more extensively because we expected an increase of positive emotional expressions and a decrease of the negative emotional expression at the end of the psychotherapeutic process.

The analysis of what patients and psychotherapists do when they speak allowed us to observe differences between them in all the classification categories. This result provides support for the existence of linguistic style differences between psychotherapists and patients. Psychotherapists explore and show the emotions of patients, while patients express and narrate different kinds of emotions. The manner in which psychotherapists differed from patients in the communicative actions used during the psychotherapeutic dialogue suggests that there is a complementarity in the way they verbalize emotions throughout the psychotherapeutic processes. Emotions define the human experience because they ensure the adaptation process and the development of a prosocial behavior, temperament, and personality (Izard, 2002). The communicative actions used by psychotherapists and patients to work with the emotional experience during psychotherapeutic dialogue are based on an accurate decoding and encoding of verbal emotional expressions and emotion signals, which enhances and sustains the therapeutic relation as a social interaction; at the same time, it regulates interpersonal relationships throughout life (Ekman, 1999).

The percentage of emotional expressions verbalized by psychotherapists and patients was rather similar in both processes, but psychotherapists had a tendency to show a higher percentage of emotion words in their verbalizations. Our findings confirm the results by Hölzer et al. (1997), who referred to a tendency of psychotherapists to use more verbal emotional expressions than their patients. Specifically, in both psychotherapeutic processes, anger and fear were the basic emotions verbalized more frequently during psychotherapeutic dialogue. These emotions are not only important in any psychotherapy, but they are also essential in the psychodynamic approach, especially anger. In the initial phase of the psychotherapeutic process, the most frequent expressions are those related to the basic emotion of fear, and during the middle phase there is an important increase in verbal expressions related to the basic emotion of anger. These findings are consistent with those of Rasting and Beutel (2005), who used the emotional action coding system to analyze the facial affect displays of patients and psychotherapists during intake interviews to determine their impact on the outcome. As they expected, the affects that patients most frequently displayed after the social smile were disgust, sadness, contempt, happiness, anger, and combinations of these. Because of the type of analysis used in the current study, it is not possible to explain this result; however, we recognize the importance of the fact that anger in psychotherapy is an emotion with many functions: It eliminates the source of irritation, eliminates the obstacle between gratifications, and even destroys the bad object like primitive anger (Gomberoff, 1999).

Surprisingly, pleasant emotions were present in a low frequency during the change episodes of both psychotherapeutic processes. Our expectation of an increase in pleasant emotional expressions throughout the process was not confirmed, even though it was possible to observe a tendency to increase during the final phase of the psychotherapeutic process. From the point of view of the dynamics of each patient, there was the same proportion of unpleasant emotions throughout the different phases of both psychotherapeutic processes, with a small tendency to decrease during the final phase. This could be related to the focus of each specific process. In the case of Patient A, the emotions of suffering, concern, sadness, and fear—all intense emotions—resulted from mourning and needed elaboration, whereas Patient B showed a tendency to increase pleasant emotions at the final phase. This particular distribution of emotions makes sense when looking at the dynamics of this patient, and we could expect more positive emotions because there was an accomplishment of autonomy and establishment of limits that made her feel more in charge of her life. These emotions be explained not only from the focus of each psychotherapy but also by the fact that unpleasant emotions increased at the final phase, because termination in all types of psychotherapy

implies a loss and a re-elaboration of all previous losses. However, we conclude that it is necessary to analyze not only the verbal emotional expressions used by both participants during psychotherapeutic dialogue but also the emotional climate that emerges in the dyad during the session, because pleasant emotions may be the baseline for the development of the therapeutic alliance, and this aspect of the relationship not only is transversal to the process and necessary for its success but also allows the expression of unpleasant emotions.

When emotions are classified according to their valence, there is evidence that pleasant emotions are related to an open, flexible, and complex cognitive organization as well as the ability to integrate different types of information. This is also related to a more creative way of solving problems and the ability to make more sensible and right judgments for decision making (Fredrickson, 2003). Pleasant emotions may involve increased cognitive flexibility in the way people narrate positive or neutral ideas to another person and increased access to multiple meanings of nonnegative cognitive material (Isen, Niedenthal, & Cantor, 1992).

In general terms, subjective change refers to change in the meanings of experience. However, it is necessary for this cognitive change to be accompanied by changes in subjective emotions, and this integration can be made only in relationship with another person, in this case the psychotherapist. This study showed that patients use more frequently expressions referred to themselves and to another not present in the session, whereas psychotherapists use more frequently expressions referred to their patients. Thus, the reference of verbal emotional expressions also suggests a complementarity in the way psychotherapists and patients verbalize emotions during dialogue throughout psychotherapeutic processes, providing access to the regulation of the mutual interaction that appears as a significant element in the further course of the psychotherapeutic process. This reciprocity could be an indicator of the interpersonal modes of affect regulation between psychotherapists and patients, which includes verbal interventions and the nonverbal exchange during psychotherapeutic dialogue (Rasting & Beutel, 2005).

Still, no significant differences were observed between both psychotherapeutic processes when analyzing the total number of change episodes (aside from the contents of verbal emotional expressions). When analyzing the different phases of the processes, significant differences were observed on the basic emotions and the reference of verbal emotional expressions, whereas communicative actions and valence remained in the same proportion throughout the psychotherapeutic process. However, as mentioned earlier, it was possible to observe a tendency for unpleasant emotions to increase in the middle phase of the psychotherapeutic process and to decrease in the final phase of the process. These findings are consistent with those of Leising, Rudolf, Oberbracht, and Grande (2006), who concluded that the subjective emotional experience of patients changes in the course of a psychotherapeutic process, in such a way that a better therapy outcome is associated with an increase in emotional variability and a decrease in the proportion of negative emotions. Pleasant emotions generated by receiving attention or a little generosity may enhance certain types of creativity and problem solving. Therefore, experiencing pleasant emotions can optimize health and subjective well-being, enlarge the thought–action repertoire, mitigate or undo the emotional effects of negative life events, and increase psychological resilience, whereas unpleasant emotions can be associated with tendencies for clear and specific responses (Fredrickson, 2003; Izard, 2002). With regard to this, we demonstrate that psychotherapy fluctuates and evolves in relation with contents, but it also is a stable process in relation with structure.

These results offer additional support for a growing body of evidence that highlights the importance of both participants in psychotherapy outcome and process. It is important when results emerge systematically as a consequence of using alternative methods and mixed methodologies, considering that process research is more exploratory in nature. Replications of these findings and the inclusion of other variables, such as psychotherapeutic approaches, the emotional climate during change episodes, and other segments of the psychotherapy without change, are necessary for evaluating the significance of our data.

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Note

[1] The change episodes were individually encoded by researchers at the first stage of the analysis process and reviewed together at the second stage in order to reach an intersubjective consensus.

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