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**Bilingualism, the expression of feelings and the assessment of
psychopathology**

Quiñones, Helen V., Ph.D.

City University of New York, 1989

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**BILINGUALISM,
THE EXPRESSION OF FEELINGS
AND THE
ASSESSMENT OF PSYCHOPATHOLOGY**

by

HELEN QUIÑONES

**A dissertation submitted to the Graduate Faculty in
Psychology in partial fulfillment of the
requirements for the degree of Doctor of
Philosophy, The City University of New York.**

1989

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This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor in Philosophy.

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Abstract

BILINGUALISM, THE EXPRESSION OF FEELINGS, and THE ASSESSMENT OF PSYCHOPATHOLOGY

by

Helen Quinones

Advisor: Arietta Slade

This study investigated the impact of linguistic fluency and early childhood language on the representation of affect during an acute psychiatric crisis. Twenty bilingual (Hispanics) subjects were selected from an acute psychiatric inpatient unit targeted to service this linguistic minority. The subject pool consisted of 55% immigrants and 45% first generational Hispanics the majority from the Caribbean islands (Puerto Rico and Santo Domingo).

The research design consisted of a narrative content analysis of 120 verbal tasks provided by twenty bilingual subjects which were randomized linguistically resulting in 65% of the responses given in the weaker language (Spanish or English) and 35% given in the language of strength. The transcripts of the interviews which consisted of responses to five TAT cards, a monologue and single word associations were scored by three judges for emotional proximity and associative evocativeness using the referential activity scale (Bucci,1984)

The findings indicate there is a statistically significant correlational relationship between fluency as measured by the English vocabulary ($R=.72$) and emotional proximity such that the greater the fluency the higher the immediacy index. The language fluency effect was evident only in English vocabulary as most of the subjects demonstrated less variability in the Spanish fluency scores.

The second hypothesis stated that the single word associations provided in the parental language (Spanish) would be more evocative than those associations provided in the non-parental language (English). The findings indicated a nearly significant difference ($p=.07$) between the English and Spanish associations with the those provided in Spanish being more evocative. The evocative quality of the associations also differed significantly ($p<.05$) according to the level of psychopathology with psychotic subjects being more evocative than non-psychotic subjects.

Based on these findings the staffing patterns of services geared towards linguistic minorities should match both the clinical and language needs of that population. This is especially crucial in crisis oriented services, such as, psychiatric emergency rooms, walk-in clinics and inpatient units where disfluency impairs the ability to express urgency and distorts the expression of both coping skills and psychopathological trends.

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Thank you Rafael Pagan Jr., my husband who participated in this endeavor, at times, as closely as myself; Nicole Elena, my two year old daughter, for her playful lightheartedness which lightened those long evenings; and Hazel Weinberg 'mi amiga de la vida' for teaching me to believe in myself.

With deep gratitude I also thank the chairperson of my committee, Dr. Arietta Slade whose special skills in integrating therapeutic processes with the rigors of a scientific inquiry, the hallmark of psychoanalytic research, was the guiding light to this project. Special thanks to the other members of my committee Dr. Carmen Vasquez who taught me to integrate cultural sensitivity with clinical skills and Dr. Larry Gould for his guidance throughout my years as a doctoral student. Thank you also Dr. Wilma Bucci for capturing scientifically the phenomena of putting feelings into words.

Finally, yet, most importantly this work is dedicated to the memory of my stepfather, Humberto Ramirez, who taught me to stand tall with pride in my Puerto Rican heritage and to preserve the language of that heritage.

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CHAPTER I

Introduction

" A word devoid of thought is a dead thing,
and a thought unembodied in words remains a shadow." ¹
- Vygotsky, 1962

This simple poetic statement by the reknown Russian linguist reflects accurately the phenomenology of not having the words to capture a thought or a feeling. This phenomenon is repeated and well recognized by a writer each time the words escape a thought or the thoughts escape the clarification resulting from tagging them with a referent. It also captures the impact that the lack of fluency has on the representation of the many fearful shadows lurking in the minds of a clinical population. The purpose of this investigation is to enlighten further what aspects of psychosis remain in the shadows when the lack of fluency exists between the patient and clinician.

¹ Hakuta, K . *Mirror of Language*. Basic Books Inc.. p. 73.

In this chapter the social bias which has in the past beclouded the field of bilingualism and can confound the simplicity of this inquiry will first be addressed, followed by the review of the pertinent case studies and empirical research.

Despite the world wide prevalence of multilingualism the maintenance or extinction of a native language is an issue laden with sociopolitical meaning. Sociologically a country will, at times, resist the intrusion of a new language as an expression of its loyalty to its own native lineage. The suppression or maintenance of language can also be utilized to empower further those in control, such as, in the case of colonies where the language of the ruling government is mandated by law (Sereno, 1978).

The United States as the home of political and economic refugees for over 200 years has an extensive history of bilingualism. Despite this lengthy history there exists no uniform approach to the management of linguistic minorities. Historically there has been a fluctuation in the tolerance of bilingualism ranging from the suppression of a foreign language, evident in the \$25 fine for speaking German in public places (post World War I) to the institution of bilingual educational programs in the public school system to meet the federal mandates that students should be taught in their dominant language (Grosjean, 1982).

It was during the John F. Kennedy/Martin Luther King era of sociological enlightenment that ethnic, cultural and linguistic

differences were recognized and fostered rather than suppressed. In tune with this powerfully enabling sociological era pluralism emerged as a national movement which shaped the perception and treatment of minorities. It was during this period that psychologists made an organized effort to integrate cultural, linguistic and racial factors with educational assessment. Approaches varied from changing the language of a test so as to enhance communication with children of different ethnic groups to developing culturally sensitive psychometric instruments to tap specific skills in this population (Constantino: 1978, 1979). It was also during this period that psychological tools were forged which could accurately measure bilingualism so as to place a child in the appropriate linguistic learning environment (Oakland, 1977).

The interest in bilingualism continued throughout the seventies as evidenced by the prolific writings of such sociologists as Fishman and Lambert. Among the research efforts of Lambert in particular was a longitudinal study of a bicultural, bilingual educational program, its impact on second language acquisition and self-esteem of children brought up in a dual cultural context, in this case, French Canadians (Lambert, 1972). There was also an interest in the meaning of social behaviors manifested by bilinguals, such as, the expression of group affiliation needs by bilinguals who spontaneously switch to a native language when in the presence of other bilinguals (Fishman, 1966). Thus there have been concerted efforts among educators and

sociologists to differentiate between political biases and psychosocial needs that are manifested via culture and language.

Pluralism as a viable movement, however, didn't permeate further into the clinical arena of psychology or psychiatry. Perhaps this tardiness may be due to the challenge confronting these fields to develop services based on psychological needs even when this opposes the more conservative trends of the seventies and eighties. Current sociopolitical trends are again reflecting the linguistic intolerances of the past. If these linguistic intolerances are not distinguished from psychological needs then the dramatic inadequacies of bilingual psychiatric services that exist today will continue to be tomorrow's reality. However if one can learn from the successful endeavors of our predecessors of the sixties to highlight the psychological needs the clinical dynamics most influenced by language fluency and early childhood acquisition can be further clarified.

The psychological need for a therapeutic interchange in a native tongue was first documented in a series of case histories (Krapf, E.1955; Greenson, R.1950; Buxbaum, E.1949) dating as early as 1949. The most critical contribution made by these clinical vignettes is the observation that the multilingual has the unique capacity of managing conflict by various linguistic strategies which can minimize or intensify the experience. The case most frequently cited in the literature is that reported by Greenson in which an Austrian born female patient who migrated to America at 18 years of age mastered

preoedipal yearnings by recapturing repressed memories in her mother tongue, German. Greenson postulated that the intensity of these yearnings was best represented in the language which framed the early childhood experiences during which the conflict first arose. It was the vividness of the imagery contained in the German words "nachtopf" and "onanie" rather than their English equivalents chamberpot and masturbation which released the repressed thoughts, feelings and ideas. This vignette was the first to recognize that language choice within the context of the therapeutic relationship is also guided by the psychodynamic laws of defense, anxiety and conflict resolution.

Although the need to understand linguistic strategies was first noted in the long term psychoanalytic cases, it is in the briefer psychotherapies utilized in the field of psychiatry that this academic interest is transformed into an urgent need. Critical interventions, such as, psychiatric hospitalization, depend on an accurate assessment of the patient's ability to cope with anxiety, depression and psychosis. The ability of the patient to express vividly the intensity of his subjective distress is critical. Therefore, it is in field of psychiatry that the impact of linguistic factors on the expression of conflict moves from a peripheral academic interest to a centrally significant factor.

Contemporary researchers in the fields of psychiatry and psychology (Marcos, 1976; Marcos & Alpert, 1976; Javier, 1985) indicate a renewed interest in the interaction between bilingualism

and defense mechanisms. Current studies demonstrate that bilingual patients can use certain linguistic strategies to master overwhelming impulses that threaten to flood the ego with anxiety. An example of a psychologically motivated linguistic strategy is one known as 'protective detachment' (Marcos, 1976). This linguistic strategy although not then recognized conceptually was described in the case vignettes presented by Lukianowcz (1962). In these vignettes schizophrenic patients attempt to defend themselves from aggressive, persecutory impulses by experiencing them in the form of auditory hallucinations heard in their learnt or weaker language.

Although this strategy is at times used in the service of the ego it can also lead a clinician to assume premature evidence of health. The danger of inadvertently minimizing the extent of a patient's despair or rage is readily apparent when assessing suicidal potential. An example of this is demonstrated by a case in which this investigator served as a consultant. She had been admitted to Bellevue Hospital two weeks prior to the consultation for threatening to jump out of a window. Throughout the hospitalization the staff enjoyed her sociability and expressiveness, most of her conversations having been in English. However when the psychological projective tests were administered in Spanish, her dominant language, an unresolved psychotic depression and rage was revealed. The suicidal impulses were not only present but the risk of acting them out would

have been potentiated by discharging her on Mother's Day, a holiday directly linked to the central conflict.

Mrs. D's case provides an example of a therapeutic risk involved in assessing a bilingual patient without the ability to communicate in both languages. Her social adaptability was an ego strength justifiably recognized by the staff yet there was also a psychotic depression which would have been overlooked had she not been assessed in her dominant language.

Therefore the linguistic variable that has critical implications for clinical assessment is fluency. Clinical observations relating language fluency to psychiatric symptoms was initially postulated in a series of case histories by Del Castillo (1970). He noted that patients who were criminally insane expressed themselves less coherently and more delusionally in his/her native tongue rather than the second language. The difference was so striking that diagnostic consensus between monolingual and bilingual psychiatrists was at times impossible. Del Castillo postulated that the pathology was more evident in the native tongue because the effort the patient made in expressing himself in a weaker language served as an organizer. This linguistic dichotomy posed by a bilingual patient who can appear psychotic in their native language yet appear not to be psychotic when conversing in the second language has also been reported by other psychiatric researchers (Gerson & Schweitzer, 1972; Hemphill, 1971; and Matulis, 1977).

It is in this area, namely, fluency and its impact on clinical assessment that minimal empirical data is available. To date there exists only one other study (to be discussed later) which addresses the diagnostic challenge of bilingual patients struggling with a language barrier while in acute psychiatric distress.

The present research has a dual focus. Primarily it is a study of fluency and its impact on the ability to subjectively describe conflictual feelings. In addition, the influence of the early childhood language on a single word associational task was also explored. The aim of the present research is to contribute to the study of bilingualism and its impact on the assessment process by addressing the following questions:

- (1) What are the diagnostic errors one can anticipate if a language barrier exists between patient and clinician?
- (2) During an acute psychiatric crisis are the associations provided in the early childhood language qualitatively different from those provided in the language acquired later in life?

CHAPTER II

Literature Review

In order to investigate these questions literature from other fields of study have been reviewed. Educators, sociologists, linguistic anthropologists and psychologists have each confronted a different challenge posed by bilingualism. Educators who teach immigrant children have studied the process of acquiring a second language (Lambert & Tucker, 1972). Anthropologists have focused on the representation of a particular culture and its reflection in the language of that culture (Whorf, 1956). Sociologists have been interested in the linguistic behaviors evident when two cultures and two languages are consolidated (Fishman, 1966). Psychological investigations have addressed the cognitive strengths of bilinguals when compared to monolinguals. For example in an influential study by Lambert & Peal (1962) found that bilingual children matched socioeconomically were superior in nonverbal tests which required mental manipulation and reorganization of visual patterns. Goggin & Wickens (1971) showed that language shifting is equivalent to a category change, the stimulus needed to improve recall among monolinguals.

Since the current study is psychodynamic in approach it faced the challenge of identifying the linguistic factors which effect the representation of personal experience. This chapter focuses on the

empirical psycholinguistic studies which illuminate further the representational differences of bilinguals given two language and cultural contexts. The linguistic factors which have been identified as influencing the representation of ideas, the flow and quality of associations are language independence and fluency. In light of this the bilingual, empirical studies of language independence (Lambert & Moore, 1972; Ervin, 1973; Koler, 1963) and fluency Marcos (1978) will be reviewed: followed by an overview of the psychoanalytic research of Bucci (1982,1984,1986,1988). For it is the psychoanalytic measuring tool called the referential activity scale developed by Bucci which provided this study the unique perspective from which these representational differences can be understood from a psychodynamic viewpoint.

Language Independence

The linguistic anthropologists Edward Sapir and Benjamin Whorf postulated the theory of linguistic relativity; they assert that every language "exercises a differential influence on the thought of the speaker, in the way in which he conceives reality and the manner in which he behaves in front of it." ² In essence the Sapir-Whorf

² Whorf, B. Language, Thought and Reality: Selected Writings of Benjamin Lee Whorf, M.I.T. Press, Cambridge, Mass., p. 15.

hypothesis indicates that language mirrors the world-view of the community it represents. Thus, each language contains the underlying values and rules for organizing reality developed by each distinct culture.

It was Whorf's intensive study of the Amerindian language, Hopi, which sensitized him to the function of language as representing not just distinct thoughts and ideas of the individual but also the world view of a culture. For example, the Hopi Indians perceive action as continuous in time. Each event has a present, past and future. That which is immediately observable and manifest is considered the present, whereas, that which is unobservable is latent and ever pressing for the moment of its manifestation (future). This view of experience as a process of continuous evolution is reflected in the distinctions of movement evident in the Hopi language. Thus a wave is either "wa'la - makes one wave, gives a slush or wala'lata = "tossing, kicking up a sea".³ The Sapir Whorf hypothesis is further validated by the well known fact that cultural groups will adapt the lexicon of their language according to their ecological environment. For example, the Eskimo whose livelihood depends on the frigid conditions of their climate have seven words for snow, whereas even the most avid American skier can only describe a few.

³ Ibid., p. 16.

The Sapir-Whorf hypothesis of linguistic relativity emphasizes the influence of language on thought and the construction of reality. Not only does a language communicate the individual's thoughts, but it also represents a vision of reality that can differ dramatically depending on the cultures being contrasted. In essence language is a window through which one can glean the aspects of reality that have been framed by a cultural group's unique ecological needs, philosophical ideals or historical events. If one accepts Whorf's statement as valid then it is possible to conclude that experience is systematically diversified by the language representing the experience .

Language independence assumes that words from each language is a distinct referent eliciting independent lines of association even if translation equivalents exist. A bilingual can maintain the same referent for a word regardless of the language (language interdependence) or a different one if the same word is expressed in the other language (language independence). A model of language independence was developed by Ervin & Osgood (1954) in which two groups of bilinguals were identified, namely, compound and coordinate. The original criteria distinguishing a coordinate was age of acquisition of the second language (10 years old and above) and the cultural context of the acquisition. Ervin and Osgood speculated that the representational independence was most evident in the bilingual who learns languages in two distinct social contexts (coordinate)

rather than simultaneously in one context (compound). An alternative view of the coordinate/compound construct was suggested by MacNamara (1972) who prefers to view the compound-coordinate categories as representing their end points of a continuum of fluency with compound being the least and coordinate the most fluent.

It is most probable that the same word has different referential significance when the connotative rather than the denotative meaning is examined. Connotative meaning is sensitive to the personal or subjective experience, whereas denotative is void of these associations being more precise in definition. For example home is a place where one lives, but to one person it may connote comfort, intimacy and affection and to another misery, estrangement and abuse. Thus, it is the interaction of affective experience with the language that can also yield a psychological separation between languages in addition to fluency or the cultural context as was originally postulated by Ervin and Osgood.

Kolers (1963) studied the functional separation of the associational process using simple one word tasks given in the native and second language. He posed two hypotheses regarding the linguistic storage of experiences. One hypothesis was that experiences are coded once and exist in a common store accessible to the bilingual regardless of the stimulus language and the other hypothesis is that events are coded specifically and separately in the language in which they are experienced. The criteria used to judge language

independence was the absence of translation equivalent responses. If the stored hypothesis was correct, a large number of translations between native language responses (Nr) and English responses (Er) was expected. The principle finding of the experiment was that there was a minimum number of translation equivalents, that is, the same stimulus word elicited different associations when given in the native language of the subjects, Spanish, Thai, or German. Minimal associative similarity was also found during the interlingual tests (stimulus in one language and response in the other). Another important finding was that the association differed more dramatically according to the semantic category; words referring to concrete objects would more often have similar associations than words referring to abstract states or emotions. Koler concluded that experiences are indeed tagged by the language of expression.

An illustrative case from Koler's associational study exemplifies the linguistic independence of the bilinguals associational process. In the following sequence of response to the word house/casa the symbolic representation shifted with the language change. The responses were divided into four groups according to the stimulus/response language. Thus E-E means English stimulus/English response; N-N-native stimulus, native response and the two intermediate possibilities E-N, N-E. The Spanish subject gave the following associations: house-window (E-E), house-blanco (E-N); casa-madre (N-N); casa-mother (N-E). It is interesting that the association

shifted from the qualities or objects of a home, white, window-to a more provocative response which was first revealed when both stimulus and response were in the native language and retained subsequently. In this case the language shift to the native language elicited a nurturant association, namely mother to the word house.

It is important to note that in Koler's study the differences were not statistically significant. Therefore, the findings could be interpreted as trends rather than a significant interaction. However, other interlingual associational studies corroborate Koler's findings. In a study conducted by Lambert & Moore (1972) the single word associations of a bilingual group (French/English) were compared to monolingual groups - American, English, Canadian, French Canadian and French. The findings indicate that the association of the same bilingual subjects shifted according to the language of the task. When the task was in French the associations were similar to those given by the French-Canadians and French-French, whereas, the responses to the English version of the text correlated highly to the responses provided by the English-Canadians and Americans.

In summary, associations are effected by the language of expression. The associational process lends itself to the subjective experience intrinsic to the connotative meaning of a word. Associations, therefore interact with language change since the connotative meaning and subjective experience may be differently represented in each language. In the cases described above there was

a qualitative shift in the associational responses provided to the same stimulus in the different languages. One may, therefore, conclude that associations are sensitive to language shifts.

An interlingual study using the ambiguous stimuli of projective test - TAT - was done by S. Ervin (1973). In her study 64 bilingual French subject matched by class, education and fluency were given a set of TAT cards preselected according to possible cultural themes. The responses were analyzed according to thematic content which were found to be significantly different. Achievement themes were most frequently found in the English protocol, whereas, verbal aggression with peers, autonomy and withdrawal from others were addressed in French.

Aside from these thematic differences what also became evident from the selected excerpts provided by the author was a qualitative shift in the conflictual material represented in the two languages. For example during the French session a 28 y.o. female subject's response to Card 4 of the TAT began

"she seems to beg him, plead with him. I don't know whether he wants her for another woman or what".⁴

⁴ Ervin-Tripp, S. *Language Acquisition and Communicative Choice*, Stanford University Press, Stanford, California, p. 51

Six weeks later the same card in the English session began

"Oh that one...In the past well I think it was a married couple, average. He got out of the Army and got himself a job or something like that."⁵

A comparison of these two excerpts show an emotive not just a thematic shift in the percepts elicited. In French the subject portrays a more intense interpersonal conflict whereas in English a conventional, socially acceptable struggle was parodied. Thus the psychological separation of two languages is evident in bilinguals who not only know the two languages but have also internalized the norms of those cultures. The hidden norms influencing the distinct social roles and ways of coping with interpersonal conflict can be stimulated by the language of the culture.

Does language independence also exist in clinical or therapeutic situations? In the field of psychoanalysis clinicians have reported clinical phenomena that suggests that early childhood trauma can be encapsulated by the language in which the trauma occurred (Greenson, 1950; Buxbaum, 1949). During the reconstruction of these traumatic events and in hypnotic states bilingual patients have

⁵ Ibid., p. 52.

reverted to using the early childhood language. Greenson (1950) postulates that this occurs because the early childhood language remains the most evocative. Buxbaum (1949) on the other hand offers an alternative explanation based on the premise that traumatic events can be creatively disassociated from conscious awareness by linguistically encapsulating it in the language that is no longer used by the bilingual patient. In an empirical study of language independence Javier (1982) simulated a trauma using a behavior modification model to explore whether the language used during the adverse conditioning trial elicited a significantly different GSR readings. In this study the physiological response to varying levels of an auditory stimulus associated with single words in both Spanish and English translation equivalents was measured. During the adverse conditioning trial stress was artificially induced by using an uncomfortably high pitched sound. When the associational tasks were repeated minus the conditioning stimulus it was found that the level of stress was the same in either language, that is, no significant difference in the GSR readings were found for the language used during the adverse conditioning trial. Thus induced physiological discomfort didn't result in the increased evocativeness of the language associated with the trauma. One can perhaps interpret these findings as reinforcing the hypothesis of language interdependence, i.e., either language can evoke the same response. However the results may not necessarily be generalizable to a clinical population as the

external discomfort of heightened noise can't be compared to the turmoil associated with traumatic events that reshape the course of a patient's emotional life.

In summary, interlingual studies demonstrate that associational thinking interacts with bilingualism significantly. Associational processes of bicultural, bilingual subject's can be colored by the subject's internalized cultural norms and personal experiences. (Ervin, 1973; Lambert & Moore, 1972; Kolers, 1963).

Language Fluency

Prior to 1973 the studies of language fluency and its impact on the presentation of psychiatric symptoms were restricted to case studies. Despite the limited scope of the psychiatric case studies they identified fluency as a crucial variable in the assessment of psychopathology. In this way they provided the impetus for further research of an empirical nature. It is in the work of Marcos that a new approach to studying language fluency and it's impact on the presentation of psychiatric symptoms was introduced. In the Marcos 1973 study 10 bilingual, Spanish dominant subjects were interviewed psychiatrically in both Spanish and English. Each of the two interviews were then rated for level of psychopathology by four psychiatrists - two Hispanic bilinguals and two English monolinguals. A significant difference was found between the scores obtained by the Spanish vs. English raters such that more pathology was ascribed to

the subjects when rated in the weaker language. Of interest also is the fact that the significant differences were noted in the scores of symptoms related to depression, namely, emotional withdrawal, mood, hostility and somatic concerns .

Marcos' study departed from the armchair observations of the previously mentioned case studies. In fact it provided empirical support for the clinical observation that the assessment of psychiatric symptoms is significantly influenced by the ability to express oneself in a fluent language. Nevertheless, certain methodological flaws - including concerns regarding reliability - limit the applicability of Marcos' results.

In a follow-up study the contents of these interviews were analyzed for content syntax (grammatical structure, linguistic mixing) and verbal behavior (speech rate, silent pauses and speech disturbances). The interviews conducted in the weaker language showed more speech disturbance and longer silent pauses than those in the dominant language. Marcos' concluded that these linguistic defects can be misinterpreted as symptoms of emotional withdrawal during the course of the psychiatric interview, thus skewing the profile towards a more pathological view of the patient.

Marcos utilized a psycholinguistic format for discourse analysis. This type of content analysis focuses on variations and patterns of verbal presentation, such as, speech rate, word count, number of pronouns. However, the emphasis on surface content alone may

prove insufficient in the analysis of verbal transcripts when clinical inferences about emotional intensity are made. The representation of emotion may be better reflected in the qualitative aspects of language such as the literary style of a narrative.

Referential Function - Linking Words to Feelings

The referential function is a concept emanating from the dual code system of mental representation developed by the cognitive psychologist Paivio (1986). The dual code system of mental representation is based on the assumption that all experiences are systematically coded either verbally by language or nonverbally in imagery that is sensorial, motoric, visceral or somatic. The referential function refers to the connection of nonverbal experiences such as emotions to language. It is the linking of words to sensations or images and motoric activity.

The work of Bucci (1981,1982,1984,1985,1986) applies this theory of representation to psychoanalytic research. Bucci utilizes the dual code system and the referential function as opposed to the instinctual model used by Freud to operationalize such psychoanalytic concepts as insight and repression. For instance, insight refers to change in the nonverbal structures brought about by activating referential connections. repression involves breaking the referential links between verbal and nonverbal system (Bucci, 1986). In addition to operationalizing psychoanalytic concepts Bucci has also developed a

scale which measures the referential function. This scale, known as the referential activity scale is based on the premise that referential connections between verbal and non verbal experiences are most direct when specific concrete words are used rather than abstract terms. This premise is demonstrated in the following schematic representation of the associational sequence to the word apple: juicy, sweet, red fruit---food----human needs-----truth. As one moves along the continuum from descriptive to abstract terms the mental imagery of an apple becomes increasingly vague until there is no mental image.

Thus the referential activity scale measures the ability to capture in words a nonverbal event in such a way that the experience can be almost replicated in imagery that is specific, sensorial and clear. The scale measures verbal expressions along each one of these dimensions, that is, concreteness, specificity, clarity and imagery. Concreteness refers to the degree of perceptual or sensory quality contained in the text. Specificity measures the degree to which persons, objects, places or events are described. Clarity measures the focus of the narrative. Imagery level measures the vividness of the sensory impressions. A composite score called the referential activity score is then derived. The higher the referential activity score the more emotional proximity there is to the experience being described.

The studies which examined the major functions of referential activity found that subjects with rapid color naming speeds were high

in referential activity (Bucci & Freedman, 1978). A follow-up study found that subjects rating high in RA used metaphoric terms to distinguish color variations, such as, ' like a fiery sunset' more frequently than low RA subjects who used descriptive terms like 'reddish orange'. The referential activity scale correlated significantly with the imagery ability measured by the Betts & Sheehan Questionnaire of Mental Imagery as reported by Bucci (1987). Persons rating high in referential activity also rated as more intuitive according to the Myers-Briggs Type Indicator (Ellenhorn, 1986).

The referential activity scale has been used in psychoanalytic research. In a study comparing the content of 'work' vs 'resistance' sessions, the content of the therapeutically productive sessions were higher in concreteness and imagery (Dahl, 1972; Bucci, in press), two of the four dimensions of the scale. Another study found that treatment was most successful when both therapist and patient were high in referential activity (Von Korff and Bucci, 1987). This scale was also used to study the course of improvement with depressed inpatients (Bucci & Freedman, 1981). In each of these studies the Referential Activity Scale detected the emotional vitality associated with successful therapeutic endeavors.

To date this scale has not been used to study the representational differences noted in the bilingual studies of language independence. These studies (Lambert, 1972; Ervin, 1972; Koler, 1963) infer that qualitative differences exist because perceptions and

associations are influenced by the different cultures in which these languages were acquired. For example, Ervin (1972) found significant differences in the interpersonal conflicts identified in the thematic apperception stories of bilinguals who were born in France and migrated to Canada. The type of conflict spoken about in the native language (French) was envy and jealousy; on the other hand, those spoken about in the second language (English) was related to autonomy and accomplishment. In this study not only did the thematic content of the stories differ but also the type of emotions elicited. This shifting of the emotional content was also noted in the single word associations in the study by Koler (1963). Although Koler recognized that the associations were more personal in the native language he was unable to capture this phenomena statistically.

The Referential Activity Scale is a tool which can measure the changes in emotional content noted in the language independence studies if these shifts are conceptualized as representing decreased or increased proximity to feelings. The representational differences of two languages can then be examined by postulating that language independence exists if the referential activity is significantly different when comparing texts given in the native and acquired languages of an immigrant. If there are no significant differences between the referential activity of the two languages then there is language interdependence.

The present study will explore a premise emanating from the psychoanalytic cases (Buxbaum, 1949; Greenson. 1950) which documented a resurgence of the early childhood language during the psychoanalytic treatment of bilinguals. This premise is that language independence, which in this study is defined as a significant increase in the level of subjectivity in the early childhood language also exists in psychotic states. This hypothesis will be studied by comparing the sensorial quality of a single word associational task provided in both languages by subjects being treated for psychosis.

The Referential Activity Scale will also be used to study the influence of another linguistic variable, namely, fluency on the subjectivity of texts provided by bilingual subjects. The study is based on the clinical observations made by Del Castillo (1970), Marcos (1976), and Lukianaowcz (1962) who have noted that psychiatric their symptoms are masked when patients speak in the less fluent language. Marcos (1976) also noted that patients can appear more emotionally withdrawn when speaking in a weaker language. In this study the subjectivity of the narratives provided by subjects with a range of fluency from minimal to balanced bilingualism will be measured by the Referential Activity Scale.

In summary in the proposed study the Referential Activity Scale will be used to measure the level of subjectivity, that is, emotional proximity contained in TAT stories, a five minute

monologue and single word associations of bilingual subjects in acute psychiatric distress. The hypotheses of this investigation are:

1 - Proficiency in a language increases the ability to describe an experience specifically, sensorially, and metaphorically (higher referential activity).

2 - Experiences expressed in the early childhood language evoke more sensorial associations as compared to the associations provided in the second language.

Chapter III

METHODOLOGY

I. Description of the Subjects

The majority of the sample was selected from the Lincoln Hospital Bilingual Inpatient Unit as there was a high percentage of linguistically balanced bilinguals. The patient population of Lincoln Hospital were youths who were relatively high functioning and averaged less than three months for any single inpatient stay. In this way chronicity and the affective disturbances associated with the advanced stages of schizophrenia, namely, anhedonia and flatness of affect were minimized.

Twenty bilingual patients were selected with a range of sex, country of origin, age and educational level (see Table 1). The age guidelines were developed so as to minimize the effect of organic syndromes most frequently found among older psychiatric patients. Thus the ages ranged from 18 to 55 years old. The educational level ranged from grammar school to a maximum of 2 years college studies. Socioeconomic status is constant as all the subjects were from a low socioeconomic status. (see Table 1)

II. Procedures

In order to assure maximum performance the subjects commenced testing after the acute phase of the illness had subsided, usually two weeks after admission. Each subject was expressive in

both languages and scored at least 10 in the vocabulary subtests of the English and Spanish WAIS in order to be included in the study. He/ she was then invited to become participants after explaining that they may be asked to provide their responses in either the fluent or weaker language. (Subjects would, at times, refuse further participation because of this stipulation.) Prior to commencing the brief psychiatric interview and the projective tests the subjects were asked to sign a consent (see Appendix A).

The subjects were then given a structured diagnostic interview (Brief Psychiatric Rating Scale, BPRS, described in detail below) in their dominant language. However, the projective tests (five Minute Monologue, and Thematic Apperception Test) were counterbalanced linguistically so that half the subjects were given the projectives in English and the other half in Spanish. This completed the testing.

Table 1- Sample Characteristics

	No. of Subjects	Percentage
<u>Sex</u>		
Male	9	45%
Female	11	55%
<u>Education-</u>		
<u>Grades</u>		
6-9	9	45%
9-13	4	20%
13-17	7	35%
<u>Country of Origin</u>		
U.S.	9	45%
Puerto Rico	6	30%
Santo Domingo	3	15%
Other (South America, Panama)	2	10%
<u>Lifetime in U.S.A.</u>		
less than 50%	8	40%
more than 50%	12	60%
<u>Age</u>		
18-29	9	45%
29-40	8	40%
40-52	3	15%

III. Measures

A. Degree of Psychopathology

Brief Psychiatric Rating Scale (Appendix B) developed by Overall and Graham (1962) consists of 18 items each being scored on a seven point scale measuring the severity of the specific symptom. It is an inventory of symptoms associated with psychotic disorders and, in fact, was standardized with an adult inpatient population. Eighteen symptoms are given a score by an examiner based on patient's stated response. The scores range from "not present" to "extremely severe" (0-6). The subjects are then given a cumulative score which if greater than 40 indicates the presence of acute psychotic symptomatology. Rater reliability was established prior to the study.

B. Degree of Linguistic Proficiency

The measures typically used for linguistic proficiency are those related to vocabulary and the fund of words. The most commonly used are:

The Global Word Naming Test (Appendix C) asks the subject to say as many different words as he can in one language and then in the other each for a period of a minute. The inference is the more fluent the subject the higher the number of words. This measure was found to correlate significantly with the number of years in the United States, English Repertoire Range and Listening Comprehension

(Fishman et al., 1975). A difference score provides fluency level as related to one constant language.

Weschler Vocabulary Subtest (Appendix D) as standardized by Weschler (1955) and translated by Green and Martinez (1968) asks the subjects to define forty concepts. Both the original and the Spanish translation were used. Marcos and Alpert (unpublished study) found that this measure significantly correlated with the minikit version of the Language Questionnaire proposed by Fishman et al (1975) and with the Word Naming Test ($R=.638$)

Three language fluency measures were derived using these instruments.

The vocabulary raw score is that obtained in the vocabulary subtest of the WAIS and the Spanish translation. Each subject was given one point for each correct answer obtaining a total maximum score of 40 in both the English and Spanish. A significant difference was found when the means of the English and Spanish vocabulary scores were compared (Table 2). This demonstrates that these subjects were least fluent in English with respect to the learnt language.

The word naming raw score is the total word count given spontaneously by each subject in both languages. No significant difference was found when the means of the Spanish and English wordnaming scores were compared (Table 2). Thus, these subjects were equally expressive in both Spanish and English.

The language strength score was computed using the language vocabulary and word naming scores. All subjects identified Spanish as the early childhood language. Vocabulary and word naming scores were converted into two language strength scores by subtracting the English raw scores from the Spanish raw scores obtained in each of the two tests (figure 1). The subjects were then divided into one of the two language strength groups, one for vocabulary and one word naming respectively. If the LS scores greater than 0 the subject was considered stronger in Spanish, if the LS less than 0 the subject was considered stronger in English.

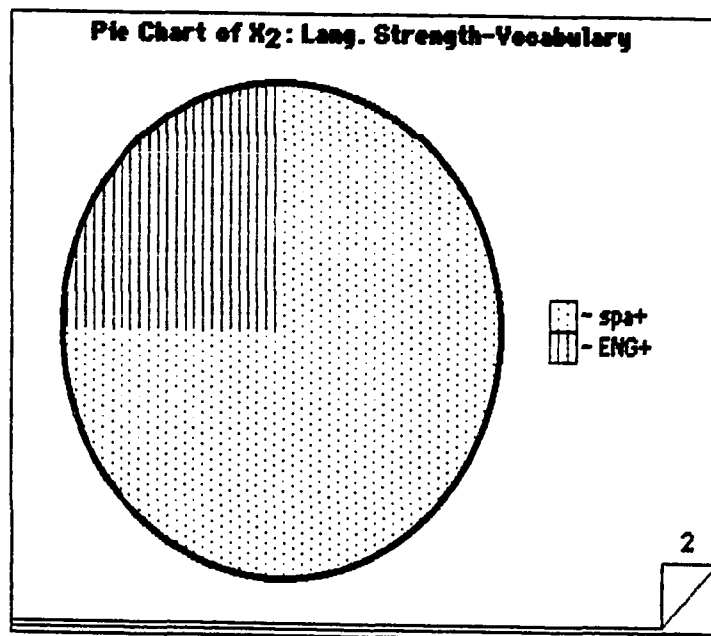
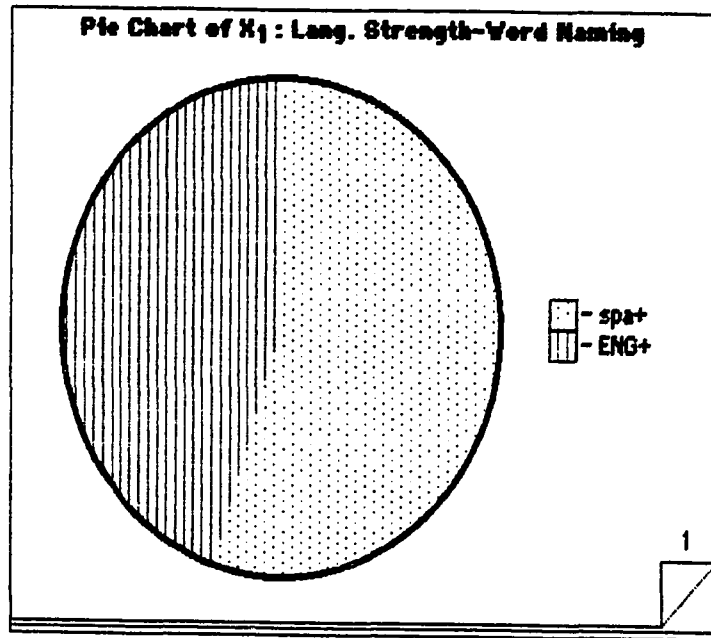
A frequency distribution revealed that more subjects were stronger in Spanish on vocabulary, whereas, the subjects were more evenly distributed between Spanish and English on the word naming language strength scores (figure 1). Thus, there was the greatest variability in English vocabulary; this being the weakest linguistic skill for this sample.

Table 2- Paired T-tests for Vocabulary Scores - English/Spanish &
Wordnaming Scores - English/Spanish

	<u>Df</u>	<u>Mean</u>	<u>S.D.</u>	<u>P.</u>
<u>Vocabulary</u>	19	6.85	3.548	.001
<u>Scores</u>				
English				
Spanish				
<u>Wordnaming</u>	19	1.15	1.058	.151
<u>Scores</u>				
English				
Spanish				

LANGUAGE STRENGTH SCORES

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C. Affect - Referential Activity Scale & Emotional Proximity

Thematic Apperception Test is a projective test developed by H. Murray (1943) which can reveal dominant emotions, conflicts and personality dynamics. The subject is requested to provide a story to the material which in this study consisted of five cards all of which depict scenes with interpersonal interactions, specifically, cards 7GF, 6BM, 4, 12.10 (Appendix E). In the quantitative analysis the stories were scored for referential activity. The stories were also analyzed qualitatively for conflict description /resolution and linguistically for language shifting and coherency.

Five Minute Monologue (Appendix F). The five minute monologue is a spontaneous speech sample utilized by Bucci and her colleagues for various verbal ratings (Bucci and Freedman, 1978). The subjects are instructed to speak about an evocative topic for five minutes with no prompting from the examiner. In this study the subjects were asked to speak freely about an important relationship (friend, relative, co-worker, teacher).

The referential activity scores were derived from these measures, as well as the word naming task. Referential activity is a term coined by Bucci to describe the degree to which a subject is able to use words to evocatively and clearly describe nonverbal experiences. High referential activity refers to verbal descriptions that bring the listener (and presumably the narrator) closer to the

emotion associated with the experience, by using words that capture the sensorial, motoric or spatial qualities of an experience

The Referential Activity Scale (Appendix G) developed by Bucci (1987) consists of likert scales for concreteness, specificity, clarity of expression and imagery. As will be described in more detail in the following section, the summary score of referential activity, as well as the concreteness score were used in the present analysis.

(Concreteness as defined by Bucci, refers to the positive capacity to describe an experience in specific terms. This is a usage of the term distinct from the psychiatric term referring to the inability to think abstractly.)

Referential Activity Score. Refers to the degree of emotional proximity in a subject's verbalization. It is the cumulative score obtained in the referential activity scale used for each of the subjects' TAT stories and five minute monologue. The total average referential activity score was obtained in two steps. First each of the subjects' TAT stories and five minute monologue were scored on a scale of 0-10 by each of the judges for each of the four criteria; concreteness, specificity, clarity and imagery. Then each RA score for each of the TAT stories and five minute monologue was summed and divided by the number of raters (Two for the Spanish protocol and three with the English protocol). In the final step each RA score per card and five minute monologue was summed and divided by the number responses in order to get the overall average RA score for each subject.

Concreteness Score was obtained by scoring each word (N=792) of the word naming task for concreteness by each of the three judges (translations were used for the Spanish words). The RA concreteness score was then computed using the same formula as the above taking into account that the number of responses varied from subject to subject.

Interrater reliability for the referential activity scale was obtained prior to scoring the TAT stories. The three raters were clinical psychology doctoral students who were trained over a period of four months by Dr. Bucci. The training sessions consisted of scoring verbal texts of increasing complexities from sentences to entire therapeutic sessions using the referential activity scale. The sessions continued until the judges reached a consensus for each of the dimensions of the scale. Two of the three judges were bilingual clinicians so that the stories told in Spanish were scored directly in the original language rather than a translation.

Interrater reliability was estimated quantitatively by first correlating the ratings given by the judges for each criterion of the referential activity scale for the five TAT cards and the five minute monologue. Thus, the correlations were based on a total N=192 for the English protocols (4 criteria by 6 responses by 8 subjects) : N=288 for the Spanish protocols of the remaining 12 subjects. (see Table 3) The average correlation for each judge is as follows: judge 1, R=.682; judge

2, $R=.616$; judge 3, $R=.585$. The cumulative average correlation for all three judges is $R=.627$; the alpha coefficient is .82 (Cronbach).

Table 3- Interrater Reliability- Correlation of The Scores given by Each Judge

N=120 (total responses scored by each judge)

<u>Judges</u>	J1	J2	J3
J1	-	-	-
J2	.714	-	-
J3	.651	.519	

IV. Hypotheses

Hypothesis #1

1 - There will be a relationship between associative evocativeness and early childhood language. The associations provided in the early childhood language, Spanish, will be more evocative than those provided in the second language. This will be tested by comparing the concreteness score for the Spanish word naming test with the concreteness scores for the English word naming test.

Hypothesis #2

There will be a relationship between the degree of psychopathology and the degree of concreteness. Thus, the more disturbed an individual is as measured by his/her score on the BPRS, the more likely they are to be concrete in their responses to the word naming test.

Hypothesis #3

There will be a relationship between language fluency and the degree to which individuals are able to find words to evocatively, clearly and meaningfully describe their experiences. Thus, language

fluency, as measured by vocabulary and word naming, will predict to higher referential activity.

V. Data Analysis

Quantitative Analysis

The general purpose of the study is to examine the relationship between language fluency (spontaneous recall, vocabulary) and affective responsiveness (immediacy of feelings) in each of two languages while controlling for the influence of a third set of variables psychopathology (severity of symptoms), age and educational level. To accomplish this the data will be analyzed by means of hierarchical multiple regression analyses (MRA). MRA which is an extension of simple, bivariate correlational analysis, permits one to examine the relationship between a single dependent variable and one or more independent variables while controlling for (holding constant) the influence of a third set (one or more) of covariates.

For the present study, the MRA consisted of four steps. The independent variables were entered into the analysis individually in the following sequence: age, education, psychopathology and fluency. The MRA automatically provided the relevant significance tests (t-tests) and measures of association (partial correlation coefficients, partial regression coefficients) which reflect the magnitude of the relationships between the dependent variable-referential activity and

the independent variables- psychopathology , fluency, age and education. Moreover, because the independent variables are entered individually, each one is controlled for (held constant) when the significance tests and measures of association are calculated for the other independent variable (as described above). All of the analyses will follow the general framework. Specifically, the dependent variable in the analyses is the measure of emotional proximity and the independent variables are psychopathology, age and education and language proficiency.

A paired t-test comparing the means of the concreteness scores attained in the word naming task in Spanish and English was used to test the other principle hypothesis. This form of analysis determined whether the single word associations in the early childhood language, Spanish were significantly different from those provided in English. An unpaired t-test was also used to compare the means of the concreteness score obtained by the sample once it is divided into two levels of psychopathology- psychotic and non-psychotic.

Qualitative Analysis

The purpose of the qualitative analysis was to further clarify the impact of fluency on the representation of conflict in the TAT stories. Six subjects were selected according to three groups of fluency-least, moderate and balanced bilinguals. Groups were formed statistically according to the standard deviations of the vocabulary

tests. The least bilingual had a 12-17 point difference between the tests (two standard deviations from the average vocabulary mean), whereas, the moderate had a 6 point spread (one standard deviation from the average vocabulary mean) and the balanced a 1 or 2 point difference. The analysis consists of comparing the illustrative excerpts of the three TAT cards within each linguistic group. Three of the five TAT cards (6BM.4,12) were selected as they seemed to elicit the most varied responses. In general the first card set the parameters of the task, whereas, the last card seemed to provide a sense of closure as it was the least obviously conflictual. A linguistic group contains the excerpts of two subjects to each of the TAT cards thus each group consists of six excerpts, three card for each of the two subjects. By following the dynamics of the conflict, its nature, intensity and adaptive ability throughout the linguistic groups, it is hoped that the distortions wrought by the lack of fluency would be highlighted.

CHAPTER III

Results

Relationship Between Associative Evocativeness and Childhood Language

In the first hypothesis it was predicted that the single word associations in Spanish would be more concrete than those associations provided in English. This hypothesis was tested by using a one tail paired T-test . The result approached significance ($t = -1.54, df=19, p<.07.$) Thus in the word naming the subjects used more descriptive, sensuous words in Spanish than in English. This result provides marginal support for the hypothesis that single word associations of the early childhood language are more evocative than those of the language learned in the latter years.

Relationship between Psychopathology and Degree of Concreteness

Subjects who are regressed have difficulty sublimating their aggressive or sexual impulses. It was, therefore, hypothesized that the single word associations would be more sensuous with subjects who were more disturbed. This hypothesis was tested by a one sample unpaired t-test with level of psychopathology as the independent variable. It is important to note that one subject was not included for this t-test. This subject's BPRS score was so high that a true picture of

group differences would have been distorted. The remaining 19 subjects were categorized as either psychotic (total BPRS score ≥ 40) or non-psychotic (total BPRS score < 40). The result was significant for psychosis on the RA concreteness/English ($t=1.72, df=17, p<.05$) and not significant for the RA concreteness/Spanish ($t=.89, df=17, p<.19$). (see table 4) The concreteness score of the psychotic group differed from the non-psychotic group when the associations were in English but did not differ when the associations were in Spanish.

Relationship Between Language Proficiency, Psychopathology and Emotional Proximity.

This final hypothesis predicted that emotional proximity would be most influenced by language proficiency over and above the influence of psychopathology, educational level and age. It was, therefore, anticipated that there would be a significant correlational relationship between the total referential activity score and the level of fluency. A multiple stepwise regression was done with the two variables, age and education entered first in order to partial out the variance related to these demographic variables known to influence verbal expression. Next the total BPRS scores, the measure of psychopathology was entered and finally a measure of language proficiency were added to the model. This regression analysis was then repeated for each measure of language proficiency (word naming-Spanish & English, and vocabulary-Spanish & English).

The results indicate a significant relationship between the English vocabulary and total referential activity ($F(4,15)=4.455$, $p<.05$) accounting for 54.2% of the variance in the total referential activity scores. The English word naming scores were not significantly related to referential activity (see tables 6 & 7).

The Spanish vocabulary and word naming were not significantly related to referential activity (see tables 8 & 9). There was also no significant relationship between BPRS scores, age and education and referential activity.

Thus, language proficiency specifically in English vocabulary emerged as the most influential variable with respect to referential activity when compared to psychopathology. The more fluent the subject is in the second language, in this case English the more evocative, clear and meaningful were the experiences described in the texts. This supports the hypothesis that emotional proximity is significantly influenced by language proficiency.

Table 4- Referential Activity Concreteness Scores on Word naming English by Country of Origin and Level of Psychopathology

<u>Referential Activity-Word naming English</u>				
	<u>n</u>	<u>Mean</u>	<u>S.D.</u>	<u>t</u>
<u>Level of Psychopathology</u>				
Psychotic	9	1.84	.462	1.72*
Non-Psychotic	10	1.572	.167	

Table 5- Stepwise Regression of Referential Activity Scores on Age, Education, BPRS and Vocabulary English

	Beta Coefficient	F to Remove
Age	-.061	4.753
Education	-.036	.136
BPRS	-.026	.686
Voc.-English	.086	10.356

Overall F= 4.455

df=4,15

P< .05

R=.737

Table 6- Stepwise Regression of RA scores Age, Education, BPRS and Word naming-English

-	Beta Coefficient	F to Remove
Age	-.033	1.028
Education	.113	1.263
BPRS	-.021	.283
Word naming-Eng.	.028	1.465

Overall F= 1.575

df= 4,15

N.S.

R=.544

Table 7-Stepwise Regression of RA Scores on Age, Education, BPRS
and Vocabulary Spanish

	Beta Coefficient	F to Remove
Age	-.038	1.075
Education	.091	.53
BPRS	-.02	.246
Vocabulary-Spa.	.033	.527

Overall F = 1.275

df=4,15

N.S.

R= .504

Table 8 - Regression of RA Scores on Age, Education, BPRS and Word Naming / Spanish

	Beta Coefficient	F to Remove
Age	-.031	.845
Education	.12	1.316
BPRS	.02	.268
Word naming-Spa.	.022	.706

Overall F- 1.33

df- 4,15

N.S.

R - .512

Lack of fluency and the Representation of Conflict

Since language fluency emerged as such a powerful influence the TAT protocols were reviewed grouping them according to three levels of fluency in both languages. The purpose of this content analysis was to highlight the impact of increasing levels of fluency on conflict description and resolution. The stories were also analyzed linguistically for coherency and language shifting.

In the group that was the least fluent either in Spanish or in English the subjects tended to describe aspects of the card giving the stories a bland, static quality. There were minimal dynamics to the interpersonal relationships other than a general statement which at times included the type of conflict.. Thus card 6BM generated vague themes of anger such as "mad about something" or disappointment, such as, "maybe do something wrong (like) he don't visit". In general this task was perceived as a test in which there were right and wrong answers. The subjects often searched meticulously for visual cues, such as, the facial expression of the characters or the objects held , utilizing these cues like props to a theatrical scene. This proximity to the visual cues at times interfered with the projection of the adaptive process which requires departing from the visual cues and imagining possible solutions to the conflict. Consequently the representation of adaptive skills were contained in simple stories of avoidance or quickly timed , impulsive solutions .

At the moderate level of fluency there is still a tendency to remain descriptive with the subjects, at times, departing from the stimulus to enter the projective task. The verbal representation of the interpersonal conflicts was more complete. For example, the subjects shared clearly their doubt in authority figures who were perceived as unable to meet dependency needs, and their hopelessness in being understood in an intimate relationship. There is, however, minimal evidence of working through these conflicts. The stories remain open ended with a character depicted as leaving or quietly thinking to themselves. This lack of representation of coping skills at this level may still be due to lack of words which captures experientially the defenselessness commonly experienced during psychosis.

In the balanced bilingual group the nature, intensity and resolution of the conflicts were well represented. There was freedom of expression which permitted the exposure of significant patterns of conflict description and resolution. For instance one of the subjects tended to use denial in order to diminish the intensity of her anguish when confronting the loss of a loved one. The extent to which the grieving process remained unresolved is evident in this subject's response to card 4 in which she describes a vigil with both characters awaiting the return of the deceased. This response may also reflect a belief in the spiritual presence of the deceased inherent to espiritismo. Complex interpersonal dynamics such as the triangulation

of intimate relationships intrinsic to unresolved oedipal strivings are also represented.

Coherency

The text of the least bilingual subjects at times appeared incoherent. The incoherency was characterized as an active verbal search for those words corresponding correctly to the mental imagery. This incoherency was not a loosening of associations notable in the various subtypes of a thought disorder, instead it was an inventory of the words which best matched the thought. Consider the following response.

"I gonna tell you the true thing about this right away. He's sleeping and he's dreaming. He's dreaming with this when he is sleeping. Jesus loves him you know. He's sleeping and singing about this to help him you know. That's it he's sleeping like un sueño. El esta sonando , en Espanol, I can't explain to you in English. But that's what I say in English he is singing and dreaming with this. He dreaming like Jesus is blessing him like that, that's all I can say." (Card 12,SL1)

The subject was highly motivated to express himself. He actively searched for the words in both Spanish and English to convey the sense of consolation contained in the imagery of the blessing. That he finally succeeds in putting part of this thought into words is noted in the final statement.

Textually the stories of both the moderately and balanced bilinguals were coherent with no evidence of the aforementioned

verbal confusion. However dependency on visual cues which dictated the action of the character was still evident.

Language Shifting

A linguistic strategy used by the least bilingual group was language shifting, that is a temporary short term use of the native language. This strategy was utilized when there wasn't enough words to express a thought such as in the excerpt describing the blessing. This temporary refueling in this instance helped organized an otherwise fragmented series of thoughts.

The language shifting can also trigger a major associational shift. This was dramatically exemplified in the following story:

"The boy is sick. His father is trying to help him to talk to say 'How do you feel today son?', 'You sleeping son?' 'Si tiene los ojos cerrado. Maybe he says' don't sleep'. Puso el pie en la cama pa'ayudalo a levantar o maybe to kill him por el pecueso...I think so."(Card 12, SL2)

The imagery of this story was benign until the midpoint when the subject notes in Spanish that the boy's eyes were closed, conveying a sense of vulnerability which seemed to mobilize an intense aggression. In Spanish she also notes that the old man's leg is on the bed. This observation triggers off an explosive conclusion in which the old man is transformed from a caring father to one who wishes to choke his son to death. Interestingly there was no language shifting evident in either the moderate or balanced bilingual.

Lack of fluency and the Representation of Visual Hallucinations

In the previous section only the narratives of patients with the acute psychotic symptoms in remission were selected. In this way the linguistic patterns intrinsic to the lack of fluency could be distinguished from those patterns inherent to acute pathological processes. In this section the impact of fluency on the representation of visual hallucinations will be explored using one subject's protocol. Thus the approach is the opposite from that used in the previous section in that a subject who was actively hallucinating was selected. This subject's protocol will be reviewed in its entirety .

It is important to note that few subjects, three, altogether were interviewed during the acute phase of their psychosis . During these interviews it became clinically apparent that making the additional demand inherent to speaking in a weaker language was very stressful and at times lead to angry acting out behavior. Therefore in the following protocol the subject who was the least fluent of the sample was first asked to speak in Spanish and subsequently in the weaker language English.(see Appendix H) This comparison demonstrated how visual hallucinations clearly expressed in Spanish are completely absent when the subject describes the TAT cards in the weaker language.

In Spanish the subject begins the series with card 7Gf using an image which is both perceptually distorted and spatially impossible."a

woman sitting in a river with a pumpkin in her hand". Following a repetition of the directives for the task he corrects the initial distortion and anchors his thoughts in a more realistic portrayal of a teacher. However he ends with yet another perceptual distortion when he reorganizes the card spatially by having the young girl sitting next to a 'heater'. He is also unable to integrate one central aspect of the picture, namely, the doll, which is never mentioned.

In the English translation provided by the subject the perceptual fluidity is again reflected. The woman and the child are interchangeable as reflected in his response where he sees the 'teacher sleeping in the sofa with the baby'. However there are no gross perceptual distortions. There is considerable difficulty following the grammatical structure of the English language which makes the text appear incoherent but the subject was able to correct this upon inquiry.

In the next Spanish response to Card 6BM there is a three dimensional quality to the mother who is seen as walking, driving, or waiting. He ends the series of movements with a distortion as he perceives her as holding a 'steering wheel'. The steering wheel becomes the central percept around which he organizes his fragmented ideas into a story first placing spatially the two figures in a car with the mother in front. He has difficulty creating a comprehensible story but it can be assumed that his story is about a mother who is busy with many things to do and who at the moment is

in a car waiting for somebody to open the door. This portrayal is a psychotic distortion as there is minimal congruency between the story and the elements of actual picture on the card. The 'steering wheel' also indicates again that the subject is experiencing visual hallucinations as it bears no resemblance to the object held by the standing figure usually perceived as a handkerchief.

In English he provides succinct statements which are more abstract in nature. He describes a quality of the mother who is perceived as 'tough' and can state clearly the central difficulty which he had searched for obsessively in the previous Spanish response, simply that they were 'stuck in the car'. Again the perceptual distortions, such as, the steering wheel is not reflected in the English version of the response.

In contrast to the previous responses the subsequent story to Card 4 in Spanish is well structured and substantively representational of conflict. It can be inferred from the image of the woman holding back the man who 'looks like he is going to fight', that the subject struggles to control impulsivity. In contrast to this the English response reflects no conflict just a vague description of the theatrical quality of this card, 'The picture is beautiful, the lady is beautiful, he is a good boy.'

The response to Card 12 is sparse in both Spanish and English. The sparsity may be indicative of patient's withdrawal because the stimulus elicited too much conflict, such as, paranoid fears.

In the final response the subject's difficulty with integrating the elements of the card is again evident in the Spanish response. His story centers around a 'praying' figure until he notices the second and awkwardly attempts to integrate it with the story in progress by stating that 'there is another person. He is trapped. He is listening to what the other one is saying.' By the time he reached this card the subject was no longer cooperative with providing an English version. Therefore, when asked to translate the response he states that 'He is a man, a good man.'

In summary the perceptual fluidity was evident in both languages however psychotic distortions were evident only in the responses provided in the fluent language, in this case, Spanish. In fact these distortions and the three dimensional quality of the human movements indicated a hallucinatory process which was not detectable in the weaker language. The transformation of the 'woman in the river holding a pumpkin' into a caring teacher was also completely missing. In summary this subject's tenuous contact with reality was detectable in the weaker language but the hallucinations were only represented in the fluent language.

CHAPTER V

Discussion

The general purpose of this investigation was to study the impact of linguistic fluency and early childhood language on the verbal representation of affect with subordinate bilingual (Hispanic) subjects in acute psychiatric distress. The main hypothesis was that affective quality contained in spontaneous and structured verbal tasks would be significantly related to fluency and early childhood language. The results of the study supports the main hypothesis showing a significant relationship between emotional proximity and fluency in the learned language. The second hypothesis which predicted a significant relationship between the level of psychopathology and the evocativeness of the single word association was also supported by the findings of this study. The difference in the evocative quality of the single word associations provided in the language of early childhood versus the language acquired later in life approached significance. In this chapter these results and their implications for future research and clinical practice will be discussed. In addition the limitations of the study will also be identified.

Relationship between Associative Evocativeness and Early Childhood Language

This hypothesis stated that the single word associations of the parental, early childhood language would be more evocative than those in the non-parental language. The results did indicate a significant difference between the group means with the associations provided in Spanish receiving a higher referential concreteness average. The associations in Spanish, the identified early childhood language for this sample, were more evocative than those provided in English. This finding corroborates with the psycholinguistic studies of Koler and Lambert which postulated that balanced bilinguals can sustain independent associational paths, i.e., language independence. It is especially relevant to Koler's multilingual study of associational independence. The results of that study indicated that subjects were more subjective in the associations provided in the native language.

Relationship between Psychopathology and Associative Evocativeness

The current study also identified yet another variable which influences the associative evocativeness of language in general given a clinical sample, namely, the level of psychopathology. The results indicated that the subjects who were categorized as psychotic provided more evocative associations than those categorized as non-psychotic. Thus there is greater evocativeness in the associations of subjects in the acute phase of psychosis.

Relationship between Language Proficiency and Referential Activity

This hypothesis anticipated that the referential activity would vary positively with the level of fluency- the more fluent the subjects the higher the RA scores. In order to control for the influence of covariants-education, age and psychopathology- a stepwise multiple regression was utilized entering each one of these variables consecutively with the fluency measures entered in the final step. The results indicate a highly significant relationship between language proficiency and referential activity with English vocabulary accounting for 54.9% of the variance. This statistically robust finding indicates that referential activity varies directly with fluency in the learnt language. Dysfluency impairs the ability to structure language in a manner that evokes feelings.

No significant statistical relationship was found between RA and psychopathology. This seems a direct contradiction of the previously discussed result in which the RA evocativeness was higher among those subjects categorized as psychotic. However the reason that no statistical significance was found may be due to the fact that there was minimal variability among the BPRS scores. The range of variability may have been too restricted to correlate significantly in a multiple regression analysis which uses continuous rather than categorical data as was used in the t- tests.

Age was also not significantly related to referential activity. This indicates that the homogeneity of the group with respect to age

was effective in controlling the influence of chronicity. One would anticipate that the older subjects are more prone to the affective disorders prevalent in the latter stages of schizophrenia, namely, an absence of affect. If the sample was not homogeneously controlled by age there may have been a significant skewing of the RA scores in the direction of a negative correlation.

No significance was found between RA and education. This finding demonstrates that the RA measure does not depend only on a fund of words but on the ability to put feelings into words. Thus referential activity is a measure which screens for empty verbosity.

Given that the intervening variables were well controlled what emerged clearly is the powerful impact fluency has on the ability to represent emotionally evocative experiences. Since fluency impacts the representation of ideas and the affect associated with them it is a variable that should be well controlled in research that explores the cultural nature of language independence. If not it could potentially be a significant intervening variable. Fluency was identified as a possible intervening factor in a language independence study done by S. Ervin. In this study she explored the associational independence of French bilinguals who were asked to provide stories to the same TAT cards in both languages. A significant difference was found in the themes given in French vs. English. In French, the native language of the subjects, the interpersonal conflicts represented were more intense containing such themes as jealousy, whereas, those conflicts

represented in the English were found to be stereotypic. Ervin postulated that these thematic differences resulted from language independence of the associations due to the strong cultural identifications present with bilinguals who immigrate later in life. Although fluency was mentioned as another contributing factor it was not adequately controlled. The findings of the current study indicate that fluency indeed influences the process of associations since there are significant affective or evocative differences when comparing languages with different fluency levels. In fact a qualitative difference secondary to fluency was that the responses in the least fluent subjects tended to be more global and minimally representational of conflict as were some of the responses in the Ervin study.

Other Related Findings

Most of the subjects scored higher in the Spanish version of the WAIS vocabulary rather than in the English. This result was expected as most of the subjects had been educated in their homeland. Therefore administering a Spanish WAIS vocabulary versus an English WAIS vocabulary made a significant difference in assessing the fund of words given subjects who were educated in Hispanic countries. This finding is important since vocabulary is often used as a stable indicator of verbal intelligence; thus, if a bilingual subject is assessed utilizing the wrong vocabulary test the level of verbal intelligence may be grossly underestimated, as has often been the case with

bilingual children. Unfortunately, it is beyond the scope of this study to clarify further a possible threshold by which to determine dominance as well as the number of years of education and residence in a native country. These indices could guide more accurately the language choice of intelligence testing.

Implications for Clinical Practice

The concept of associational independence was supported by two of the principal findings of this study. Increased associational evocativeness was evident although statistically marginal in the Spanish words of the wordnaming task. However when the group was dichotomized by level of psychopathology English was more evocative in the psychotic group. Although this may seem contradictory these results do support the general principle that each of the languages indeed elicit qualitatively different associations. Which is more evocative the first or the second language may depend on the nature of the conflict being confronted.

When an early traumatic event is struggling for conscious awareness the childhood language may evoke the disassociated affect and memory. This has been exemplified by psychoanalytic theorists (Krapf, E., 1955; Greenson, R. 1950; Buxbaum, E. 1949) who postulate that childhood trauma is best represented by the language in which it occurred. In these cases the imagery and vividness of the experience may best be captured by the first language.

In other clinical situations, the language acquired later in life can become more evocative than the early childhood language. For example bilingual patients in a psychotic state can refuse to speak their parental language. This linguistic rigidity has at times been related to the struggle against destructive parental identifications often present with the first psychotic episode. A bilingual can identify with a parent through the increased use of the language associated with him or her. These parental identifications may be intensified or diminished according to the language chosen especially during states of psychic vulnerability. During these states there may be a strong motivation not to speak the parental language for fear of being consumed by the identification. In essence, the parental identification is disassociated by temporarily disassociating the language of the parent.

This clinical interpretation of language as a means of identifying with a parent has special connotations in the treatment of psychotic patients. A bilingual clinician must remain flexible, allowing the patient the freedom to choose the language in which to communicate. In the cases where the parental language is associated with nurturance, consolation and reconnection to a yearned for homeland parental language usage can be curative. However, in the cases where the patient is struggling to individuate from a destructive introject usage of the parental language could be detrimental until the patient has a sufficiently developed self identity.

usage of the parental language could be detrimental until the patient has a sufficiently developed self identity.

The third and most important finding of this study is that fluency has a direct positive relationship with the ability to communicate the immediacy of an experience verbally. The greater the degree of fluency the greater the emotional proximity to subjective experience. This empirical finding further validates the concept of protective detachment introduced by Marcos (1976). Marcos postulates that lack of fluency can be utilized defensively by bilingual patients who distance themselves from emotionally charged issues by switching to speaking in the weaker language.

Other psychiatric investigators (Lukianowcz, 1962; Del Castillo, 1970) also found that acute psychiatric symptoms can be masked by communicating in the weaker language. These investigators suggest that patients defend themselves from distressing symptoms by communicating in the weaker language. However, in addition to attenuating the intensity of the experience, lack of fluency can screen the the changing percepts of visual hallucinations by forcing the patient to pick out carefully his/her words. This screening of certain psychotic processes was clearly exemplified in the TAT protocol in which visual hallucinations clearly detectable in the responses of the fluent language were completely lacking in the responses of the weaker language.

The implications of this finding in the assessment of a psychiatric crisis is crucial. In the assessment of a psychiatric emergency clinicians tune into the urgency with which patients are describing their distress. The greater the urgency the more pressing the impulses, anxiety or forbidden idea. This urgency or complete lack of it is used to assess the potential for acting out for instance a suicidal or homicidal plan. If a language barrier exists, the potential for acting out cannot be adequately assessed. Consequently one of the key assessment questions which continuously plague a clinician in the emergency room, in the walk-in clinic and on an inpatient unit- what is the suicidal or homicidal potential- remains unanswered.

Other clinical distortions secondary to fluency were highlighted in the qualitative analysis in which the contents of 18 TAT responses organized into three groups of fluency using both Spanish and English protocols were compared. At all fluency levels the patients are able to represent interpersonal conflict, however, the complexity of the conflict description progresses along with the level of fluency. In the least bilingual, conflicts were labeled by simple vague statements. As the fluency increased these conflict descriptions were transformed, becoming more subjective. However, coping strategies were not adequately represented in either the least or moderately bilingual group. Thus the ego strength or weakness could not be adequately assessed until the fluency level was the highest.

A clinician is most vulnerable to serious diagnostic errors when confronting the least bilingual group. This fluency level can be equated to that which is necessary to negotiate simple structured social situations, such as, employment or grocery shopping. At this level it would be difficult to differentiate between the verbal incoherency secondary to lack of fluency and that which is associated with a thought disorder. In the TAT excerpts the incoherency can be typified as a temporary search for the right words. This verbal inventory can be seen throughout the discourse along with intermittent periods of lucidity. It is only correctable upon inquiry in the fluent language.

The least fluent subject's productivity is also restricted and characters can be frequently categorized as either good or bad. The subjects of this group often became frustrated, discouraged and at times angry. This observation is in fact congruent with one of the findings stipulated in the quantitative analysis which suggests that there is an increased level of emotional evocativeness associated with increased level of psychopathology. If there is a lack of fluency during periods of increased evocativeness, such as is present during the acute phase of psychosis then the additional frustration of not having the right words may become intolerable leading to angry acting out behavior. This behavior can be perceived as a general negativism as opposed to being induced by a stressful situation. An overzealous clinician may also be tempted to equate the good/bad

categorization with splitting or the verbal inventory to a thought disorder, thus ascribing too much pathology.

On the other hand too little psychopathology can also be ascribed to the subjects in the least bilingual group. At this level of fluency psychotic perceptual distortions can be disguised by the global, constricted quality inherent to a lack of fluency as well as language shifts which can express the distortions in the stronger language unbeknownst to the monolingual clinician.

In conclusion, in order to increase the reliability of clinical judgement there should be a correlation between the level of fluency and the level of the inference. For example with a minimally fluent subject and a monolingual clinician clinical inferences should not go beyond observations related to actual social interactions or behaviors whereas the moderate bilingual can provide sufficient data to understand interpersonal conflicts. The balanced bilingual is most able to represent intrapsychic conflict in either language.

Implications for Future Research

Future research endeavors can focus further on the dynamic interplay between bilingualism and defenses. The referential activity can be used to analyze therapeutic sessions of bilingual subjects which contain periods of language shifting. The text of the language deviation can then be analyzed according to emotional proximity, type of conflict and type of defense. In this manner one can explore

whether emotional proximity is attenuated by the language chosen given different defenses. For example obsessional defenses are characterized by the use of too many words which can result in text that is specific but low in imagery, concreteness and clarity. Therefore speaking in the fluent language may increase the reliance on obsessional defenses that diminish affect. This type of clinical research is especially relevant in understanding the psychodynamic implications of patients whose therapeutic resistance may be expressed in a request to not only change a therapist but also the language of the therapy.

Limitations of the Study

Since this study did focus on a task which required verbal expressiveness the two measures of fluency selected were those appropriately matching the nature of this task. The measures were those of spontaneous recall and fund of words both skills needed to provide a story. However, it was clearly evident however that the subjects attained different levels of competency given each of these skills. Thus, the subjects seemed to be equally expressive in both languages but scored significantly different in vocabulary. This study however failed to provide the accuracy of a single quantifiable measure which combines the assessment of the various language skills encompassed by fluency. An accurate linguistic assessment of fluency

is provided by such educational tests as the Language Assessment Scale which provide tests for oral, reading and writing comprehension.

A small sample size is also a limitation of this study. This was dictated by the fact that it is difficult to find the minimal level of fluency needed to successfully proceed with the main task of story telling. The restrictions of fluency disqualified numerous subjects screened in a period of a year.

The final limitation of this study is a lack of a comparison group such as a group of psychiatric outpatients who had been stabilized for an extended period of time. A control group would have broadened the range of psychopathology making these results generalizable to a clinical population. As it exists now the findings can only be generalized to an inpatient population.

Concluding Remarks

The ability to speak the language of the host country is viewed as the responsibility of the immigrants who come to America in search of a new beginning. Ultimately each immigrant must indeed confront the loss of the uniqueness of their language and culture. However this social reality should not influence the psychological realities seen in those who turn to clinical services in their confusion and despair. It is in these crisis services that the ability of expressing themselves in their language of choice is not a luxury but a compelling need. The psychiatric emergency room or inpatient unit are not the

places to practice broken English in an effort to communicate but places to cry out clearly their distress.

The findings of this study indicate clearly that urgency is muffled or silenced by a lack of fluency. In addition gross clinical errors can occur if a bilingual patient is assessed psychiatrically in their weaker language. Too much or too little psychopathology can be ascribed due to the distortions inherent to speaking in the weaker language. The incoherency of searching for the right words becomes difficult to differentiate from a formal thought disorder. Most importantly the affective distance resulting from breaking off the referential connection between nonverbal experiences and words can be perceived as depression. In addition perceptual distortions such as visual hallucinations are not adequately represented as the constant movement of changing percepts is immobilized by the lack of words by which to describe them. At times bilingual subjects will revert to the more fluent language when sudden impulses or fears overtake them unbeknownst to the monolingual clinician. Consequently acute psychiatric crisis cannot be accurately assessed if there is a marked language barrier between clinician and patient. It also places a clinician in an untenable and unethical position as critical decisions must be made based upon nonverbal behavior and intuition. Although sound clinical judgement combines our observational skills with intuition, the science of psychology also depends on the power of

verbal expression. In a case where there is a language barrier between clinician and patient too much remains unsaid.

The findings also have implications for bilingual clinicians. There is a full range of bilingualism and acculturation among bilingual clinicians just as it is found in the clinical population. So the golden rule of attuning clinical inferences and interventions according to the level of fluency also holds true when a bilingual clinician is faced with the decision to accept the treatment of a Hispanic patient. If bilingual skills match the treatment model which can be successfully completed at each level of fluency one could conceptualize it in the following manner: least bilingual can provide concrete services, the moderately bilingual clinician can provide supportive treatment and the thoroughly balanced bilingual can provide insight-oriented therapy. In depth assessments should be done by the most trained and the most fluent. Most staffing patterns should, therefore, not only address the clinical but also the linguistic needs of the targeted treatment group.

In conclusion this study addresses a basic psychological need shared by both clinician and patient and seriously thwarted when there exists a language barrier. This need simply stated is the need to put feelings into words.

Appendix A
INFORMED CONSENT

English: You will be asked to answer some questions in order to get basic information about you. When you will receive three different psychological tests lasting one hour. First, you will be asked to speak freely for five minutes about an important relationship, secondly you will be asked for five adjectives which best describes one of your parents and finally you will be asked to tell a story to a set of picture cards. Some of your responses will be tape recorded, however you can feel free to turn the tape recorder off at anytime. These same tests will be repeated tomorrow in Spanish and English. The purpose of this study is to help us assist other persons communicate their feelings.

Spanish: Te voy hacer algunas preguntas para obtener informacion acarca de ti. En seguida te voy a dar tres pruebas psicologicas que duraran una hora. Primero, te voy a pedir que hables durante cinco minutos acerca de una persona importante para ti; luego quisiera que me digas conco adjetivos que describe a uno de tus padres. Finalmente te voy a pedir que digas unos cuentos basado en unas tarjetas. Algunas de tus repuestas seran grabadas. Si en algun momento tu quieres apagar la grabadora podras hacerlo. Mañana vamos a repetir este mismo proceso. El proposito de este estudio es ayudaralos envestigadores a entender como se comunican los sentimientos.

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Appendix C

WORD NAMING

English

Now I am going to ask you to tell me as many different English words as you can. Any word at all will be OK. They don't have to be big words. Just any word at all like (pause) cat, table, pen. When I tell you to start, tell me as many different English words as you can. I'll tell you when to stop. Any questions? OK, now. (One minute). Good, that's enough.

Español

Ahora le voy a pedir que me diga en español todas las palabras diferentes que pueda. Cualquier palabra sirve, no tienen que ser palabras importantes. Cualquier palabra, como, por ejemplo (pausa) gato, mesa, lápiz. Cuando yo diga que empiece, me dice todas las palabras distintas que pueda. Yo te diré cuándo tiene que parar. ¿Alguna pregunta? Muy bien, empiece. (Un minuto) Muy bien, Ya es suficiente.

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Appendix E

FIVE MINUTE MONOLOGUE

English: For the next five minutes I would like you to tell me about the most important relationship in your life right now. (Who is this person and what about the relationship do you value the most.)

Spanish: Durante los proximos cinco minutos quisiera que me hablara acerca de la persona mas importante en tu vida actual. (¿Quien es esta persona?. Que es lo que hace que la relacion con esta persona sea tan importante para ti.)

Instructions for Scoring Referential Activity (RA)
in Transcripts of Spoken Narrative Texts

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January, 1987

Referential Activity is defined as activity of the system of referential connections between verbal and nonverbal representations; the latter include imagery in all sense modalities, emotion, and somatic experience. People differ in functioning of the referential connections as they differ in verbal or imagery ability. Where Referential Activity (RA) is high, the access to imagery and its expression in language are more direct. These differences are reflected in qualities of language style. The measures used to assess these stylistic features include rating scales and objective measures based on quantifiable linguistic features. The procedures for scoring RA language style may be applied to many different types of materials, including brief texts such as monologues, early memories, or TAT protocols, and long continuous texts such as psychotherapy or psychoanalytic sessions.

Dividing the text into units.

The procedures for segmenting texts depends on their length and structure, and on the purposes for which the scoring is used. A brief text such as a monologue, Early Memories Test, or TAT protocol may be scored as a unit.

The monologue text may also be subdivided into smaller units. Transcripts of long texts, such as psychotherapy sessions, are always subdivided into shorter segments for scoring. Two types of divisions are used: *themes* and *idea units*.

Themes. These divisions reflect obvious shifts in subject matter, where one topic is clearly ended and another introduced. (We're concerned here with manifest content, not with underlying themes, which of course, may be expressed in many different forms.) Mark a theme shift wherever the speaker clearly introduces a new topic. Theme shifts are often, although not always, signaled by a statement explicitly marking the change of subject, e.g.: "O.K., let's see, what else should I talk about now?". In general, they are the kind of narrative segments for which it is easy and natural to assign a title, e.g., 'my trip to Israel'; 'how I met my husband'. The speaker often does this for you explicitly, e.g., 'O.K., now I'll tell you about why I decided to become a philosophy major'. Many brief monologues consist of only one or two major themes; however in some cases, speakers may have difficulty in fixing on a topic and move from theme to theme, generating only a few sentences for each.

Idea units. Themes may be subdivided into idea units. These are less major shifts in focus of the narrative within a theme. Mark a boundary of an idea unit where the focus of the narrative shifts or a new idea is introduced. A transitional sentence signaling a shift in emphasis and leading from one idea unit to another should be considered the opening sentence of the second idea unit.

Shifts in ideas are frequently marked by a change in scene, a description of a new event, or the introduction of a new person. Shifts can also be defined by changes in the mood or feeling of the passage. The introduction of new imagery or shifts in bounded experiential representations can also define idea units. However people can often recognize these boundaries without being able to define explicitly the basis on which the judgement was made.

In the final description of a text we score as individual units those whose boundaries are marked by a specified proportion of the judges. Some people mark finer idea shifts than others: most people agree on the broader unit divisions as on the major themes. The proportion of judges that is required depends on the purpose to which the particular text analysis is to be put. That is, for some purposes, we may wish to note the finest division that anyone might see. In other cases, we may be attempting to demonstrate that the divisions that are noted are really there in the text, and were present in the speaker's mind, rather than being imposed by the reader or listener; for this purpose, we require a high level of agreement by our judges. Several monologues which have been marked as to division into idea units are included as an appendix to this manual.

Psychotherapy or psychoanalytic sessions.

The text of a session is always divided into idea units for scoring. The segments may coincide with the individual utterance units (patient utterance bounded by therapist utterance or the reverse); or the utterance may be divided into smaller idea units, following rules given above for dividing brief

texts. This is a necessary part of the procedure for scoring psychoanalytic sessions, where the patient may speak without interruption for a long period. Two or more patient utterances may in some cases be combined into a single idea unit if the intervening therapist utterances are brief, nonsubstantive responses, e.g., 'umhmm', 'yeah', 'oh'. Whenever the therapist interjects a substantive comment or question, a new idea unit is scored. A scoreable unit should be at least two typed lines in length. Briefer utterances should be combined into a unit including contiguous utterances where appropriate, or left unscored.

Rating scales.

Scales have been developed for rating characteristics of language that are associated with the RA process. The rater forms impressions of the narrative material on several dimensions that reflect access to nonverbal representations and their expression in language. These are Concreteness, Specificity, Clarity, and overall Imagery level. For all dimensions, the scoring is intended to apply to the manifest content of the text; no clinical inferences are required. In general, Concreteness and Imagery measure the sensory characteristics of the language; and Specificity and Clarity reflect its degree of focus and articulation. Concreteness and Specificity indicate how frequently these dimensions are expressed in the speech sample, i.e., their *quantity*; Clarity and overall Imagery level are indicators of the effectiveness of the expressions, i.e., their *quality*.

The justification for use of these scales is derived from both literary criticism and experimental research, as discussed in several publications (Bucci & Freedman, 1978; Bucci, 1984; Bucci, 1985). According to the dual code model, referential connections are most direct for concrete and specific words and the entities to which they refer; less direct for abstract, general and vague concepts and terms. Language that is specific and clear, with large amounts of concrete detail, reflects the presence of imagery and emotion in the speaker's experience, and is likely to evoke corresponding experience in the listener.

All dimensions are coded on a scale of 0 - 10. Since definitions of literary qualities may be elusive, examples are given below to mark points on the scale. The decimal values given for the examples result from calculation of mean scores. Raters use integers only for scoring. The scales are defined as follows:

Concreteness.

This dimension reflects degree of perceptual or sensory quality; the frequency with which verbal expressions refer to properties of actual things or events or to anything that is experienced as sensation or feeling. This may include reference to imagery in any sense modality; somatic or visceral experience; representations of motoric activity, i.e., descriptions of movement or action; or expressions of emotion. The emotion may be named or described in some more indirect way. Rate the occurrence of such material in the manifest content. Note that a high level of concreteness in

the manifest content does not rule out the possibility that abstract concepts are being represented. Effective metaphors and other poetic expressions which may evoke a complex range of associations and abstract ideas would be judged as highly concrete on this scale, e.g., this excerpt from a poem by Wallace Stevens:

The red ripeness of round leaves is thick
 With the spices of red summer.
 But she that he loved turns cold at his light touch.

Such an expression would also be judged as high on the Imagery scale (see definition below). However it is also not necessary for an expression to be effective or to express ideas to be judged as concrete; e.g., "He kept scratching his stomach and twisting around in his chair" would also be scored as relatively concrete. Other examples follow to mark points from low to high on the concreteness scale:

Concreteness Scale Points

Mean (N=10)

0.90 (S.D.=0.8)

I can't really think of too many times when he forced me to do something when I didn't want to. I mean, there's a lot of times he didn't do stuff that I wanted him to do. The other way around. He was ... if I didn't understand something, he would tell me what was going on, stuff like that".

2.70 (S.D.-2.3)

I feel, that's when I feel like I'm not in the clouds, looking down on this person. I don't know, I think it's really bad. I mean, I think, I don't know. I feel like all - uh - I suddenly became aware of feeling like I'm sort of using him to sort of - uh - work out all my messed-up psychological problems.

4.00 (S.D.-1.9)

And uh - we got stuck in Paris on the way home, at Orly Airport for five hours, and that was horrible. There's nothing like laying in an airport and not knowing - especially when the airport is closed, not knowing whether you're gonna go or stay or what. And when you don't feel too good to begin with.

5.90 (S.D.-2.5)

Tell you the truth, I was madder than hell that I did it, because it was a stupid mistake. I shouldn't of done it. I was running after a fly ball and I didn't pay any attention to the warning track, right into the wall and separated my shoulder. It was my mistake. Other than being sorry a few times when I would have been able to get the ball to home plate and now I couldn't get to it - I couldn't get it to home plate in time with the throw - being pissed off at myself like that, it didn't bother me that much.

7.60 (S.D.-2.0)

She's quite attractive, uhm, and you know in - in a youthful way and her figure is - is I look at it now considering the number of kids that she's had, her figure is real nice and firm. Very large breasts and round, full figure. My father's, uh I can't do so well with that. His skin's - got very - uh - dry skin. Lots of reddish tones in it. But I don't know how true that really is because it might be mixed up with things since then. And he's got fiery red hair and green eyes.

9.30 (S.D..07)

I can't stand fruit with bad spots in it. It gives me the creeps. So I picked up that pineapple and it looked so nice, and then my finger went right through inside it, into this brown, slimy, mushy stuff, and my stomach just turned over.

Specificity.

A highly specific text is detailed and informative: involves explicit descriptions of persons, objects, places, or events. It is possible to be specific in talking about many different types of material, including abstract as well as concrete contents; e.g., a person may tell exactly what he had for breakfast, or a logician may talk in considerable detail about the provisions of truth tables. For this scale, the degree or quantity of detail is important rather than the vividness of description or coherence of presentation.

Mean (N=10)

1.00 (S.D.=0.9)

I was very unhappy at first here ... And then, I could like it very much. I would never want to live here, but I like it very much, and I like being around people."

2.30 (S.D.=1.3)

It's very interesting seeing women you know going through through labor and birth. And I always wondered like if i wanted to have children or not and I don't know. It just posed a lot of questions in my mind because like I don't want to have children but the when I see how happy they are after the birth I thought oh it must be nice. But then when you think about what comes after - all the work and all the sacrifices and responsibility. And I don't think I'm - I could handle it ... "

4.30 (S.D.=1.9)

Physical activity, that's lots of fun. Kind of got out of the habit when I went to college. I used to swim a lot. But I didn't have time to do that in college. Like an embryo or something, never got out of my shell and went outside.

5.90 (S.D.=2.8)

One, it was customary; two, I never ... I mean I liked her but that's about as far as it went. Three, somebody else came along, and; four, it was right in the middle of the baseball season and I couldn't take her bitching at me and trying to play baseball at the same time."

7.10 (S.D.=1.8)

Christmas eve. Both of my parents are sitting on the couch, the house is decorated with all sorts of neat, little things - a tree and they have - um - you know, one of those things with the candles that spins around and probably a Santa Claus that lights up. And we're putting on a show for the family - we, meaning myself and my younger brother - and we're going into the dining room. I don't know if we're talking about what we're going to do, but we take turns and also we go as a team and we do these little skits. Singing songs, little dances and my mother and father think it's very funny and amusing.

9.10

Just before I went to sleep on the first night, I had a good look around the room, opening all the drawers and cupboards I could see. I hadn't expected to find anything, but in the last drawer, which was the one in the bottom of the wardrobe, I came across a quite amazing collection of old junk. There were old broken dirty shoes, a greasy old recipe book, bottles half full of over-the-counter medicines, a large moth-eaten embroidered pincushion, a lot of shoe trees, some plugs and bits

of wire, and two beer bottles. I couldn't have been more surprised if I had really found a skeleton.

Clarity of Expression

This dimension refers to clarity of an image as seen through the language; the effectiveness with which the speakers' imagery, ideas or feelings, whatever they may be, come through the language, so that you are likely to feel "you know what they mean". A clear narrative is well-focused; the outlines of the ideas or imagery as expressed in the speech are clean, not blurred or fuzzy. Clarity does not refer to logical or grammatical organization. Texts can be rated as high in clarity even if the speaker moves from idea to idea without the basis for the connections being evident, if each "shot" is well-focused. Texts can be rated as relatively high in clarity, even if confusion, conflict or ambiguity are being expressed, if the expression of these feelings is clear. Remember that you are rating transcripts of *spontaneous spoken language*, and that such language is likely to contain grammatical lapses. A text may be rated as clear even if the speaker uses grammatically incorrect forms or run on sentences rather than well-organized sentence structures as long as the ideas come across.

Clarity
Scale Points

Mean (N=10)

1.30

Oh, ultimately the goal is to explain what the slip means, but this is the only way to proceed, amidst procedure, unless you can nail it down to something specific, which then exonerates you, you, you, you uh, you have these doubts that maybe the whole thing is a smoke screen."

2.80 (S.D.=1.1)

I think that other doctor who talked to me before tried to get me to say something about that. I don't know. I don't think there's anybody punishing me except myself. And maybe I'm doing it to myself. Or maybe not punishing myself. I don't think I'm punishing myself. It seems like all this other junk has warped some of my ideas about now, so you know, I have some misconstrued feelings and fears and all that stuff out of it that's affecting me now; not like punishing yourself.

4.00 (S.D.=1.9)

See, but I wouldn't have felt so bad if that girl hadn't like yelled at me through the window, talking about going to drink with her. 'Cause her man was sitting right there on the stoop braiding the little girl's hair, her daughter. Just to see when anyone would say "You want a drink?". Then the big fat one looking up, she'll call him in."

5.30 (S.D.=1.2)

I don't know. I have a contradictory nature. I don't know why. One minute I'll do one thing and the next minute I'll do another. I change my mind."

7.20 (S.D.=1.1)

And two nights we slept in um ... abandoned buildings that - one had been a school house and - one had been a factory, I think. And there was just nobody around that was - it was deserted except for occasional Bedouins that you saw, and I know a couple of times the truck stopped and - gave them water. Now they had these um ... I guess s-sacks made of goatskin and stuff like that that they kept water in, and they had been running low and - and we saw - it was the first time I'd ever seen a Care Package, an actual thing in use."

8.60 (S.D.=1.2)

My father was - I remember him trying to swallow his baby food and he couldn't swallow it. I had to run up the the bathroom and leave the water run in the basin just so I wouldn't hear his choking on his baby food. All those things come back to me all the time and haunt me.

Overall imagery level.

This refers to your overall impression of the effectiveness with which the speakers' language is reflecting and capturing emotional experience or imagery, in any sense modality. The rater judges the degree to which the experience is present and the speaker is able to express it in verbal form. Vivid sensory impressions should be present to achieve a high overall Imagery score.

Imagery

Scale Points

Mean (N=7)

0.90 (S.D.=.78)

I love people and I like to be with people. And right now I feel very bad because I can't be with them and do the things I would like to do. But I'm looking forward to a happier and healthier future and -- I don't know what else to say. What else can I talk about? Well -- I've had a very eventful life, I think. I've worked practically all my life and I love people".

2.60 (S.D.=1.8)

I want to be an accountant. I want to work with numbers and figures. I wanna put ... knowledge with the books like ... First there is a

journal, then there is a ledger, and then there's a trial balance. The journal is the original book of entry ... "

4.20 (S.D.-2.1)

Physical activity, that's lots of fun. Kind of got out of the habit when I went to college. I used to swim a lot. But I didn't have time to do that in college. Like an embryo or something, never got out of my shell and went outside.

5.60 (S.D.=1.5)

See, but I wouldn't have felt so bad if that girl hadn't like yelled at me through the window, talking about going to drink with her. 'Cause her man was sitting right there on the stoop braiding the little girl's hair, her daughter. Just to see when anyone would say "You want a drink?". Then the big fat one looking up, she'll call him in."

6.90 (S.D.-1.8)

Christmas eve. Both of my parents are sitting on the couch, the house is decorated with all sorts of neat, little things - a tree and they have - um - you know, one of those things with the candles that spins around and probably a Santa Claus that lights up. And we're putting on a show for the family - we, meaning myself and my younger brother - and we're going into the dining room. I don't know if we're talking about what we're going to do, but we take turns and also we go as a team and we do these little skits. Singing songs, little dances and my mother and father think it's very funny and amusing.

7.90 (S.D.=0.9)

He was a hard-working man. He left home very early in the morning. I remember in the winter he left home while it was still dark, and it was so cold. And he arrived home exhausted, haggard, sweaty, uncommunicative.

9.20 (S.D.=1.0)

I can't stand fruit with bad spots in it. It gives me the creeps. So I picked up that pineapple and it looked so nice, and then my finger went right through inside it, into this brown, slimy, mushy stuff, and my stomach just turned over.

Appendix G

INTERVIEW

Interviewer: "Vamo a seguir. Card 7GF."

Patient: "Una muchacha. La mama de ella esta sentada en un rio. Tiene en la mano una calabaza."

Interviewer: "Dime un cuento de las dos, de tu imaginacion."

Patient: "Ese retrato esta bonito con la señora y esa niña. Parece una maestra pa' ella."

Interviewer: "¿Y que es lo que le esta ensenando?"

Patient: "Esta senta en el sillón del papa. Esta senta al lado de su mama."

Interviewer: "¿Y que le ensena la maestra?"

Patient: "Ensenando cosa buena."

Interviewer: "¿Por ejemplo?"

Patient: "Ella esta mirando como pa' lante si es la mama o la teacher de ella, esta hablando."

Interviewer: "¿Y que paso al fin?"

Patient: "Al fin, ella estaba hablando y la niña se sento al lao de un heater, parece un heater."

Interviewer: "¿Y que paso despues?"

Patient: "Se sento ella y la maestra en un sofa y ella se sento en una esquina."

Interviewer: "¿Quiero que me diga lo mas que puede de ese cuento en inglés?"

Patient: "The teacher is sleeping in sofa with the baby."

Interviewer: "What is the teacher doing?"

Patient: "The teacher is doing something. May it's the blackboard. The teacher look in the conversation."

Interviewer: "So what you can tell me in English is this is a pretty picture. It's a teacher with a girl. The teacher is in conversation but the girl looks away at the board. ¿Algo mas en inglés?"

Patient: "No."

Interviewer: "This is 6BM. I'm asking Gilberto to say it in English after he says it in Spanish."

Patient: "La mama del señor del joven aqui esta caminando. Puede ser que se ha ido esa señora entonces ella esta esperando que le abran de un sitio. Le abran algo. Esta como guiando un carro."

Interviewer: "¿Como que; guiando un carro?"

Patient: "Tiene como un guia en la mano. Ella va alante. El un hombre serio y ella tambien."

Interviewer: "¿Pero porque se va la mama?"

Patient: "Porque esta para y esperando que le abran."

Interviewer: "¿Que sucedio entre lo dos que ella se fue y el se quedo?"

Patient: "Iba a mucho sitio hacer una diligencia y ella no iba poder ir."

Interviewer: "¿Y que paso al fin?"

Patient: "To' esta parao ahi con el guia. Se van a quedar esperando."

Patient: "Mother is tuff. They stuck in the car. Good lady and good man."

Interviewer: "Number 4."

Patient: "Una señora y el señor. Parece que la quiere mucho. Esta peleando pa' llevarsela. Esta aguantandolo ahí. Parece que va a pelear."

Interviewer: "¿De que fue la pelea? ¿Porque pelearon?"

Patient: "No se. Cosa de la vida."

Interviewer: "¿Que cosa de la vida? ¿Por ejemplo? ¿Y que pasa al fin?"

Patient: "Al fin, que se quedo el aguantao ahí. Le hizo caso a ella, la esposa."

Interviewer: "Dime el cuento en inglés."

Patient: "El picture beautiful."

Interviewer: "And what else about the picture?"

Patient: "The lady beautiful."

Interviewer: "What else?"

Patient: "He's a good boy."

Interviewer: "The picture is beautiful, she is beautiful, he's a good boy and she's a good lady. What else?"

Interviewer: "Card 12M."

Patient: "Cuando vino la señora estaba durmiendo. Vino ella pa' encima de el entonce pues el algo la mano. Ese señor esta acostado ahí. El se quedo con la mano alsa."

Interviewer: "¿Y que sucedio al fin?"

Patient: "El se quedo mirandola a ella media dormia. El se quedo con la mano alsa pa'riba. Son buena gente los dos." (end of Card 12M)

Card 10

Interviewer: "Ahora, lo que me pueda decir en inglés."

Patient: "Te cen, ten cen! The old man, the old lady."

Interviewer: "Ten cen, ten cen, good lady, good man, an old man. Y dijeste ten cen, ten cen. ¿Que quiere decier ten cen, ten cen?"

Patient: ?

Interviewer: "This is card 10."

Patient: "Un señor que tiene lamano pa'rezar. Esta resignandos a Dios. Esta parao ahi orando como el padré de la iglesia. Yo veo que parece que esta resando. Ese un buen hombré."

Interviewer: "¿Que mas? ¿Que sucede al fin?"

Patient: "Ahi esta otro, esta trancao. El esta escuchando lo que el dice."

Interviewer: "¿Y al fin?"

Patient: "Se termino la conversacion."

Interviewer: "Quiero que me diga lo mas que pueda en inglés."

Patient: "The man, good man."

Interviewer: "Que mas, what else? He's a good man..."

Patient: ?

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