

A PRELIMINARY  
COMPARATIVE STUDY OF  
DRAWINGS PRODUCED  
UNDER HYPNOSIS AND IN  
A SIMULATED STATE BY BOTH  
MPD AND NON-MPD ADULTS

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## ABSTRACT

*In a pilot study designed to determine if there is a difference in the artwork of MPD and non-MPD adults when developmental stages of artistic growth are compared, both groups of subjects were assessed under two conditions. Each subject was asked to complete a set of drawings while they were pretending to be certain ages (5, 9, 12, and 16), i.e., in a simulated state. A second set of drawings was completed while subjects were hypnotized and age regressed to the same ages of 5, 9, 12, and 16. Ages for the simulated and hypnotically age regressed states were selected based on earlier developmental studies of artwork. Each age selected represents a different stage of artistic growth that can be identified by characteristics found in the form of artwork (noted in the linear qualities, spatial organization, and use of detail within the artwork).*

*The Mann Whitney U test, when applied to scores representing developmental characteristics in artwork from both the simulated and hypnotic states, showed a difference at the  $p < .006$  level (significant) and  $p < .002$  level, respectively. Non-MPD subjects scored higher, in the stage four through stage six range. MPD subjects' scores showed greater diversity, with all six stages of artistic growth being represented. This diversity in MPD scores suggests that an age regression, or a phenomenon akin to it, occurs in MPD subjects but is not apparent in non-MPD subjects regardless of instructions to simulate or to follow a protocol instructing them to age regress hypnotically.*

## INTRODUCTION

Results of many scholarly studies indicate that normal artistic growth follows a predictable pattern, with one stage of drawing behaviors building upon the preceding stages (Lowenfeld, 1947; Kellogg, 1955; Gardner, 1980; Fuhrman, 1988a). As growth continues, characteristics noted in early stages are replaced with more sophisticated renderings. These stages of creative, artistic growth can be summarized by saying that drawings change over time as individuals mature. As change

accumulates, the differences in the form of drawings become more apparent in:

- (1) ability to control the drawing instrument, as noted in linear qualities;
- (2) changes in the spatial organization; and
- (3) use of detail.

Control of the drawing instrument, or rather a lack of it, is noted in stage one. Stage one is best characterized as uncontrollable scribbles. Scribbles subside as geometric shapes emerge in stage two and progress to more controlled lines at stage three. More deliberate placement of lines and greater control are noted in stages four and five. Finally, deliberate variation in line quality is apparent in stage six.

Changes in the spatial organization of the drawing serve as developmental indicators. Random placement of picture parts in stages one, two, and three progress to a single baseline where in picture parts are lined up along the bottom of the page in stage four. Attempts at depicting perspective in stage five and finally mastery of perspective in stage six allow for documentation of the particular stages of development with regard for overall organization.

Additionally, the use of detail within the objects changes as development progresses. Early stages progress from unrecognizable forms to generalized symbols of people, houses, and other familiar objects. Greater refinement in stages four and five is noted when people are drawn with regard for size and gender. Further refinement and individualization of objects occurs in stage six.

As these predictable changes are noted in the form of artwork, the represented artistic stage can be assessed. These stages are generally congruent with particular chronological ages.

Gardner (1980) suggested that free graphic expression is replaced by language, social relationships, and a heightened interest in realism during early teenage years. Artistic development stops at that point at which the individual ceases to draw, usually around ages twelve and thirteen. If the individual does not continue to draw, artistic development stops at the range of stage four or five. Gardner has also suggested that those individuals who continue to draw may be those with special talent, supportive environments, or perhaps those with no alternative means of self-expression. Since this number who continue to express themselves artistically is small when populations over age thirteen are studied, we would expect that most adult participants in a study of artistic development would show the developmental characteristics in the stage five range. Such subjects would score lower than the artistically talented stage six individuals regardless of drawing instructions.

However, Fuhrman's (1988b) study of the artwork of adult Multiple Personality Disorder (MPD) patients has indicated that for persons with this condition, artistic growth does not flow smoothly, gradually, and predictably, with one developmental stage of drawing behaviors building upon the accomplishments of previous developmental stages. In actuality, observations have indicated that the artwork of adult MPD patients shows characteristics of early, middle, and latter stages of creative, artistic growth when developmental trends are analyzed. The unpredictable appearance of any particular stage of growth in MPD artwork is in contrast to the consistent appearance of the latter stages represented in the artwork of non-MPD adults. For example, artwork completed when an alter perceives him or herself as a younger age than the true life age appears to reflect developmental characteristics that run parallel to the perceived age, a finding that would appear counterexpectational in view of the conclusions of Orne's (1951) classic study of hypnotic age regression. Linear qualities in the artwork of young alters are frequently recognized as uncontrolled with crooked and intrusive lines. Crooked, intrusive lines are in contrast to the more rigid, controlled lines that begin and end at the point where another line begins without overlap. Human figure drawings of young alters are often shown as generalized forms regardless of who is being drawn much in the way that young children generalize across forms. Little detail or lack of differentiation in dress, hairstyle, or sex of figures is also noted in the artwork of young alters. Likewise, random placement of picture parts in the artwork of young alters is typical while older alters organize the drawings in a fashion that is more easily understood by the observer.

It is the absence of the predictable stage-like growth, or the observable fluctuations in developmental representations in the artwork of MPD subjects that appears to reflect an important difference between MPD and non-MPD artwork thus warranting a more scientific study. Also, since MPD patients have been identified as highly hypnotizable (Frischholz, Lipman, & Braun, 1984; Bliss, 1984), a further study of differences between drawings done in a hypnotically age regressed state and a simulated state seemed worthy of examination.

## METHOD

### *Subjects*

A volunteer sample of ten college students from Millersville University of PA and ten MPD patients hospitalized at Eugenia Hospital, Lafayette Hill, PA were invited to participate in a study of drawing behaviors.

The ten non-MPD subjects ranged in age from nineteen to thirty-four. None had ever been hypnotized previously. All were assumed to be normal adults without dissociative disorders. None had had formal training in art beyond high school although one claimed an interest in the developmental differences found in children's human figure drawings.

The ten MPD subjects ranged in age from thirty-one to fifty years. Length of treatment for MPD subjects ranged from three months to four years. One expressed concern over her MPD diagnosis, preferring a Post Traumatic Stress Disorder diagnosis to MPD. None had had any formal training in art.

Each subject was observed under two conditions, one in

which they had been introduced to simulate age regression, and a second, in which age regression had been suggested under hypnosis. Selected ages of 5, 9, 12, and 16 were used in both simulated and hypnotic conditions. These ages represent different stages of artistic growth, each with its particular characteristics that distinguish it from the next stage that would occur naturalistically (Lowenfeld, 1947; Kellogg, 1955; Gardner, 1980; Fuhrman, 1988a).

### *Procedure*

Each subject was introduced to the experimenter and hypnotist and asked to read a brief description about hypnosis. Each was asked if she had ever been hypnotized previously and given an opportunity to ask any questions. Rapid hypnotic induction using the eye roll technique (Spiegel & Spiegel, 1978) was used to induce hypnosis because the induction is brief (less than a minute per subject) and could be attempted by all subjects without undue distress. The authors believed that the subjects who could/would age regress were already highly hypnotizable making more elaborate and lengthy inductions unnecessary. Eye roll and squint measurements were recorded for each subject. The Mann Whitney U test failed to show a significant difference in eye roll and squint measurements between groups although there is an observed tendency for MPD scores to be larger. It is possible that significant results may have occurred if a larger *n* was used and/or the subjects were more comfortable with the hypnotist. Subjects deliberately altering their response to the suggestion for an eye roll have been observed previously in MPD patients (Kluft, 1987). These patients have been reported to withhold their full expression of an eye roll as a reflection of their anxiety about hypnosis and hypnotherapy. Therefore, greater attempts to match controls for hypnotizability may be warranted in future studies.

Each was given 8.5 x 11 white paper, several black ebony pencils, and erasers and asked to follow the hypnotic protocol reproduced below.

Look towards me

Get as comfortable as you can.

As you hold your head in that position, look up toward your eyebrows, now toward the top of your head.

As you continue to look upwards, close your eyelids slowly. (Hypnotist record eye roll and squint scores.)

Keep your eyelids closed and continue to hold your eyes upward. Take a deep breath, hold, relax your eyes, relax your breath, relax your body.

Focus on your breathing noticing how the rhythm of your breathing begins to change. Focusing on your breathing will help your breathing become more relaxed and more efficient.

Use your imagination to see in your mind's eye a room with five mirrors. You will begin to know that each mirror stands for a different age. The first mirror, as you look at it, reflects the picture of yourself as you are today. The second

mirror, as you look at it, represents a picture of yourself as you were when you were 16 years of age. The third mirror reflects a picture of you when you were 12 years old. The fourth mirror reflects a picture of you as you were 9 years old and the fifth mirror represents an image of you when you were 5 years of age.

I would like you to begin with the fifth mirror. As you look in that mirror you can see yourself as you were when you were 5 years of age. Notice the clothes that you were wearing, the hairstyle, your size and weight. Notice your shoes and how your face looks, how much smaller you appear to be and know that you are in a place where you can feel comfortable and safe. As this image becomes sharper and sharper allow a part of your mind to again focus on your breathing noticing that as you inhale the image becomes more vivid. As you are breathing in, the image becomes more and more vivid, details become clearer and your ability to see the clothes that you are wearing, your hair, size and weight as you were when you were 5 becomes more vivid.

Even though when you were 5, you and I had never met, you can realize that somehow you know who I am, that I am Dr. Zingaro and I am going to ask you to do some drawing for me.

Look at yourself in the mirror and notice what you are wearing, your facial appearance, your size, your weight. You are able to see an image of yourself at age 5 and you can open your eyes as you remain in a pleasant, comfortable, and safe state of hypnosis. Imagine you are that 5 year old and just take a moment as you breathe in and now becoming more and more like that 5 year old. In a special way you can step inside that mirror and feel, think, and act just like you were 5.

Open your eyes now and as I hand you this pencil and paper draw a group of three people, any people, as best you can.

Upon completion of this projective drawing, the hypnotist instructed the subject to "please draw anything you wish, as best you can." Age progression began after the second drawing was completed with the hypnotist stating "I would now like you to look at the fourth mirror." (Instructions were repeated substituting 9 years of age, 12 years of age, 16 years of age, and finally instructions to see yourself as you are today.)

After a brief break, subjects were asked to pretend they were ages 5, 9, 12, and 16, and asked to complete these same tasks in the simulated states, i.e., "Please draw a group of three people, any people, as best you can" followed by instructions to draw "anything you wish as best you can." In this pilot study an attempt was made to control for order effect. In the non-MPD population, simulated conditions were administered first fol-

lowed by the hypnotic age regression protocol in half the population with order reversed for the remaining subjects. There was no significant difference found in the order of instruction in this group. Our attempts to control the order of instruction between conditions in the MPD group was not as easily undertaken. Putnam (1984) addressed the issue of uncontrolled switching of alters and research effects on the MPD subjects. The authors are aware of possible confounding effects here but felt that, clinically, the best interest of the subject required that the order of instruction be given as determined on an individual basis.

No instructions on how to draw were given. No time limits were imposed on participants with the exception of a request to complete the drawing if time went beyond ten minutes per drawing. Time taken for each drawing was recorded as were notations on erasures, questions asked, and comments spontaneously given by the subjects. Handedness was recorded.

### *Scoring and Rater Reliability*

Three raters were trained and tested prior to scoring projective drawings, again prior to scoring spontaneous drawings and finally midway through the scoring session of spontaneous drawings. There was 94% agreement between raters on the first and second testing with a 96% rate of agreement on the final testing.

All drawings were scored according to criteria explained below. These criteria meet the characteristics of artwork found in the six stages of artistic growth as noted in previous developmental studies (Lowenfeld, 1947; Gardner, 1980; Fuhrman, 1988a). The highest score in each of the three areas represented the highest stage of artistic growth and is not ordinarily found in populations younger than thirteen years. Lower scores represented earlier stages of artistic growth.

Drawings were scored in three areas including linear qualities, spatial organization, and use of detail. Each area received a single score in the range of 0 through 5. Total score per drawing was in a range of 0 through 15.

Linear qualities refer to motor skill coordination or ability to control the drawing instrument to produce lines. Straightness of the lines, ability to stop and start lines were considered as was pencil pressure. Drawings were scored as follows.

+1 = Two or more different line qualities within the same picture, i.e., scribbles combined with uncontrolled or controlled lines, or, variety of lightness and darkness in the drawing, or, any combination of the categories that requires a score of +2 or above.

+2 = Scribbles, i.e., not recognizable forms.

+3 = Uncontrolled, i.e., crooked, intrusive, and/or broken lines.

+4 = Controlled, i.e., beginning and end points meet without intrusion.

+5 = Pencil pressure deliberately varied within a single object.

Spatial organization refers to the manner in which objects are arranged on the drawing paper. For purposes of this study, consideration was given concerning completeness of the assignment under this category.

+1 = Incomplete drawings, i.e., less than three figures in the projective drawing and/or missing parts that are not consistent



across all figures.

+2 = No obvious relationship to the picture parts and/or no baseline or apparent order to the picture.

+3 = A single baseline whether drawn or not, or, a single object.

+4 = Action and/or indications of more than one baseline.

+5 = Attempts at perspective, successful overlap, intentional use of different size relationships based on realistic representations.

Symbol enrichment refers to the amount of detail given to the objects in the drawing as well as differentiation between them.

+1 = Inconsistent use of detail or emphasis on one object over others, or, one object only with no detail.

+2 = Generalizations across forms, i.e., same size, repetition

and/or *not* true to life size relationships.

+3 = True to life size relationships, i.e., no exaggerations, or, parts fitting within other parts in an understandable manner.

+4 = Differentiation in sex of people in three or more areas, i.e., dress, pattern, and hairstyle *or* great detail alone, i.e., houses with doorknobs, curtains, shutters, etc.

+5 = Profiles in people including definite facial features and/or shading or texture.

Table 1 represents the scores that each stage would receive in each of the three categories.

A non-parametric test, the Mann-Whitney U was selected to compare the differences in developmental representations in the artwork between MPD and non-MPD groups. The Mann-Whitney U test is the non-parametric equivalent of the parametric, independent t-test. Level of significance to reject the null hypothesis was set at  $p < .05$ .

The Wilcoxon matched-pairs signed-ranks test was selected to compare the performance of subjects across different conditions. Conditions being compared were (1) simulated and hypnotic states and (2) projective and spontaneous drawings within groups. The Wilcoxon matched-pairs signed-ranks test is the non-parametric equivalent of the dependent t-test. It allows the experimenter to evaluate the difference between subjects under two conditions while limiting extraneous differences, since each subject serves as his own control (Siegel, 1956, p.51).

TABLE 1  
Scores and Representative Stages

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Score	Line Quality	Spatial Organization	Use of Detail
0	-	-	-
+1	-	-	Stages 1 and 2
+2	Stages 1 and 2	Stages 1, 2, and 3	Stage 3
+3	Stage 3	Stage 4	Stage 4
+4	Stages 4 and 5	Stage 5	Stage 5
+5	Stage 6	Stage 6	Stage 6
Total score of three categories per drawing represents stage of artistic development.			
TOTAL SCORE 5 = Stage two		TOTAL SCORE 7 = Stage three	
TOTAL SCORE 10 = Stage four		TOTAL SCORE 12 = Stage five	
TOTAL SCORE 15 = Stage six (highest stage of artistic development)			

TABLE 2  
Total Scores Per Subject

S <sub>MPD</sub>	Simulated Scores	Hypnotic Scores	S <sub>non-MPD</sub>	Simulated Scores	Hypnotic Scores
1	92	86	11	101	105
2	86	79	12	99	95
3	82	76	13	96	89
4	80	32	14	88	91
5	71	79	15	86	90
6	70	62	16	86	88
7	70	44	17	84	81
8	69	46	18	84	92
9	59	10	19	83	88
10	25	62	20	80	84

## RESULTS

Results and analyses were determined according to the scores on Table 2. Each subject's scores per drawing were summed to give a total score under each of the two conditions.

It was hypothesized that MPD subjects would show a wider range of developmental stages in their artwork than the non-MPD group. Since the groups under study were small and the subjects were two independent groups, a non-parametric test, the Mann-Whitney U was selected to compare the differences in developmental representations in the artwork between MPD and non-MPD groups. A U value of 23 or smaller was required in

order to reject the null hypothesis, that there was no difference between groups. Since a *U* value of 2 was obtained when the hypnotic drawings between the two groups were studied, the null hypothesis was rejected at beyond the .002 level of probability. The MPD group showed wider diversity in stage of development with lower scores. The same test was applied to the simulated drawings of both groups and again showed a significant difference, this time at the  $p < .006$  level with a *U* value of 13.5. Again MPD adults scored lower and showed wider diversity than non-MPD adults.

It was also hypothesized that there would be a significant difference between hypnotic and pretend drawings in the MPD group. To test this hypothesis the Wilcoxon matched-pairs signed-ranks test was selected to compare the performance of subjects across different conditions. Conditions being compared were (1) simulated and hypnotic states and (2) projective and spontaneous drawings within groups. In this study both groups tended to score higher on spontaneous drawings ("please draw anything you wish") than on projective drawings ("please draw a group of three people...") in both the simulated and hypnotic states but neither group showed a significant difference between types of drawings.

No significant difference was found in the non-MPD group between the pretend and hypnotic states. Likewise, although it was hypothesized that there would be a significant difference between simulated and hypnotic states in the MPD population due to higher than normal hypnotic responsivity, results were not significant at the  $p < .05$  level.

The present study has shown that, regardless of instructions given the subjects in the non-MPD group to simulate ages 5, 9, 12, or 16 years or instructions under hypnosis to age regress to the same ages, every individual drawing scored in the range of 8 through 15 points. These scores represent stage four or above suggesting that, in normal populations, adults cannot regress or pretend to become a younger developmental age and express that age artistically. Rather, each subject remained remarkably consistent in his representations regardless of hypnotic induction or simulated conditions.

While non-MPD subjects scored between 8 and 15 points per drawing regardless of simulated or hypnotic states, this consistency was not apparent in the drawings of the MPD group. Instead, MPD subjects scored between 0 and 15 points per drawing, representing all six developmental stages. These results document what is described here as age regression that manifests itself in the MPD population. Of interest is that this regression occurred in the MPD population under both simulated and hypnotic conditions suggesting that hypnotic induction was not necessary but perhaps facilitated the age regression.

## DISCUSSION

Earlier studies of simulated MPD encouraged by hypnotic interview and age regression (Spanos, Weekes, Menary, & Pertrand, 1986) promote the notion that MPD can best be conceptualized as a social role enactment. In this conceptualization, subjects can learn to enact the MPD role after having been told or suggested the appropriate responses or behaviors that would support an MPD diagnosis. The current study instructed some of its subjects to attempt to simulate MPD to an

extent by instructing subjects to behave as if they were particular ages in one condition as well as by tapping into the previously mentioned hypnotic responsivity through suggested hypnotic age regression in a second condition. By measuring responses via drawings rather than verbal clues as in the Spanos, et al. (1986) study and comparing those responses to actual MPD subjects under the same conditions, no evidence was found to support the implication that MPD can be created via hypnotic age regression or simulation in subjects without MPD. We have found that attempts to simulate an age regressed state (as defined by artwork criteria) in non-MPD subjects failed to result in drawings suggestive of age regression and that the phenomena analogous to age regression found in MPD subjects were not dependent upon the hypnotic state.

It is also of interest to consider these findings in the light of Orne's (1951, 1959) landmark studies of age regression and the malleability of phenomena thought to be hypnotic under the demand characteristics of the situation in which they are elicited and/or observed. In his research, Orne concluded that adults do not age regress in any manner that can be verified, but that instead they are motivated to pretend to behave as they believe a child would behave if asked to do the task under consideration. It follows that there is no true phenomenon of hypnotic or spontaneous age regression. If that were the case, it would appear that no differences should exist with respect to actual developmental trends in the drawings of MPD and non-MPD adults in either the pretended or hypnotic states.

However, none of the non-MPD subjects in the current study were able to transcend or abandon their actual chronological ages in terms of the criteria of artistic development under either experimental condition, yet the MPD patients showed considerable variability under these circumstances. One would think that this difference would prompt a reconsideration of the conclusion that the age regression behaviors (at least those that are measured by artistic development criteria) are due to suggestion and responsive pretending alone. It is certainly possible that this preliminary study, with small numbers of subjects, without formal measures of hypnotizability (the eye-roll alone, used for convenience and to avoid placing an undue pressure on the patient subjects, is not an adequate test of hypnotizability and is only one component of the Hypnotic Induction Profile [Spiegel & Spiegel, 1978]), and with sub-optimal controls, may contain within it an unsuspected systematic artifact that could confound conclusions even as tentative as those offered herein. It is also possible that the construct of age regression that is employed in this study is sufficiently different from that of Orne (1951) as to eliminate any apparent contradiction between his findings and our own far more preliminary ones. However, it is also possible that the traumatic shattering of the normal developmental process that would, if uninterrupted, have lead to the smooth and seamless transition across discrete states of consciousness, may result in circumstances in which the discrete states fail to undergo a normal maturational process (Putnam, 1988) and might contain within them certain relatively archaic patterns of behavior that, when accessed, could become manifest as the age regression-like phenomena that were encountered in this study. In a 1986 article that bears upon these considerations, Kluft found that age regression and age regression-like phenomena in MPD

patients did not necessarily conform to the patterns that would be expected on the basis of the study of subjects without MPD.

The link between age regression, hypnotizability, and dissociation is as yet scientifically unexplained. A recent review by Frankel (1990) outlines many of the unresolved questions in this area. However, the link between dissociation and hypnotizability is inferred in a study by Frischholz (1986). It seems plausible, then, that since the link between hypnotizability and dissociation has been made, and MPD is a dissociative disorder whose core phenomena is expressed in stable, spontaneously emerging states (some of which have the appearance of being age regressed states), then the age regression-like phenomena noted in drawing behaviors of MPD subjects is highly associated with the dissociated structures which can be tapped via hypnotic induction but is not dependent upon them. Future studies with a population of non-MPD highly hypnotizable subjects may aid in resolving whether hypnotic responsivity correlates with demonstrated age regression noted in the artwork of highly hypnotizable MPD subjects. If indeed highly hypnotizable non-MPD subjects demonstrate less diversity in their drawings than MPD subjects in simulated or hypnotic states, one could then have more evidence to suggest that age regression in MPD is the result of dissociative phenomena that cannot be induced, nor simulated, by any currently known type of intervention. By delineating degrees of age regression and correlating the degrees to different diagnoses we may be closer to understanding the dissociative continuum and its relationship to hypnotic responsivity.

## CONCLUSIONS

The authors wish to emphasize the preliminary nature of this study, and underline the reservations expressed earlier in the text.

This study has confirmed the observed differences found within the structure or form of artwork of MPD subjects (Fuhrman, 1988b) when compared to the structure or form of artwork of non-MPD subjects. A single, developmental stage of artistic growth is not consistently represented in the artwork of MPD subjects. These differences appear to be the result of a phenomenon that may be analogous to spontaneous and/or suggested age regression noted in highly hypnotizable MPD subjects. Because, by the criteria of artistic development, none of the non-MPD population was able to transcend their real life chronological ages in either simulated or hypnotic states, the notion that adults simulate MPD as a result of social conditioning, role enactment, or increased motivation under hypnosis can be questioned. However, this hypothesis is not disproven by the current study.

Further analysis of available data is underway, as are replication studies with additional controls. We are using ANOVA techniques to explore whether there exists a significant difference in the developmental representations of artwork between simulated and hypnotic states in MPD subjects. However, the purpose of the analysis in this study was to validate the differences in developmental representations in artwork, resulting from what appears to be a phenomenon analogous to age regression, regardless of how and why it occurs. While a clearer understanding of the how and why of phenomena analogous

to age regression noted in artwork is still unanswered, results of this study offer evidence for the use of artwork as an objective tool to explore one facet of development, if not as a valid indicator of phenomena analogous to age regression noted in MPD. ■

## REFERENCES

- Bliss, E.L. (1984). Spontaneous self-hypnosis in multiple personality disorder. *Psychiatric Clinics of North America*, 7, 135-148.
- Frankel, F.H. (1990). Hypnotizability and dissociation. *American Journal of Psychiatry*, 147, 823-829.
- Frischholz, E.J., Lipman, L.S., & Braun, B.G. (1984). *Hypnotizability and multiple personality disorders*. In Braun, B.G. (Ed.), *Dissociative Disorders: 1984, Proceedings of the First International Conference on Multiple Personality/Dissociative States*. Chicago: Rush University.
- Frischholz, E.J. (1986). Dissociation, hypnosis, and child abuse. In R.P. Kluft (Ed.), *Childhood antecedents of multiple personality*. Washington, DC: American Psychiatric Press.
- Fuhrman, N.L. (1988a). *Symbol enrichment: A goal in art education*. Unpublished Master's Thesis, Millersville University, PA.
- Fuhrman, N.L. (1988b). Art, interpretation and multiple personality disorder. *DISSOCIATION*, 1(4), 33-39.
- Gardner, Howard (1980). *Artful scribbles, the significance of children's drawings*. New York: Basic Books.
- Kellogg, Rhoda (1955). *What children scribble and why*. San Francisco.
- Kluft, R.P. (1986). Preliminary observations on age regression in multiple personality disorder patients before and after integration. *American Journal of Clinical Hypnosis* 28(3), 147-156.
- Kluft, R.P. (1987). The withheld eye roll sign. *American Journal of Clinical Hypnosis* 30(1), 9-19.
- Lowenfeld, Viktor, & Brittain, W. Lambert (1975). *Creative and mental growth* (sixth edition). New York: Macmillan Publishing Co.
- Orne, M.T. (1951). The mechanisms of age regression: An experimental study. *Journal of Abnormal and Social Psychology*, 46, 213-225.
- Orne, M.T. (1959). The nature of hypnosis: artifact and essence. *Journal of Abnormal and Social Psychology*, 58(3), 277-299.
- Putnam, F.W. (1984). The study of multiple personality disorder: general strategies and practical considerations. *Psychiatric Annals*, 14 (1), 58-61.
- Putnam, F.W. (1988). The switch process in multiple personality disorder. *DISSOCIATION*, 1(1), 24-32.
- Putnam, F.W. (1989). *The diagnosis and treatment of multiple personality disorder*. New York: Guilford.
- Putnam, F.W., Guroff, J.J., Silberman, E.K., Barban, L., & Post, R.M. (1986). The clinical phenomenology of multiple personality disorder: a review of 100 cases. *Journal of Clinical Psychiatry*, 47(6), 285-293.
- Siegel, S. (1956). *Nonparametric statistics for the behavioral sciences*. New York: McGraw-Hill Book Co.
- Spanos, N.P., Weekes, J.R., Menary, E., & Pertrand, L. (1986). Hypnotic interview and age regression procedures in the elicitation of multiple personality symptoms: A simulation study. *Psychiatry*, 49(4), 298-311.
- Spiegel, H., & Spiegel, D. (1978). *Trance and treatment*. New York: Basic Books.