

# Picture interpretation and Jungian typology

Derek P. Bergeron, David H. Rosen, Randolph C. Arnau & Nathan Mascaro  
*Texas, USA*

*Abstract:* This study examined a Jungian picture interpretation schema, which utilizes a specific quadrant method. This proposed schema, which is used in training at the C. G. Jung Institute in Zürich, attaches significance to specific areas of a drawing. The upper left of a drawing is associated with the father; the lower left with the unconscious; the lower right with the mother; and the upper right with the future. Three questions served as the foci of this study: Is the schema valid? Do certain types within Jung's personality theory respond better than others to the schema? Does the schema work best when it elicits a strong affective response from the person who created the picture? Subjects took one of two tests: a space domain test, or a colour associative test. The results revealed only two significant effects: a positive association (in the space domain test) between unconscious material with the unconscious quadrant and a negative association (in the colour associative test) of mother material with the mother quadrant. These results suggest that the Jungian quadrant schema used to interpret drawings is invalid and of minimal practical utility. Other methods of picture interpretation are discussed as well as suggestions for future research that would be helpful to this field.

*Key words:* active imagination, emotionality, Jungian typology, picture interpretation, quadrant schemas.

---

## Picture interpretation and Jungian typology

Active imagination in Carl Jung's psychology, which can lead to artistic productions such as colour drawings and pictures, is reckoned to be a revealer and a healer of personal conflicts (Jung 1916). Such a powerful technique can be used for constructive purposes. One way this technique has been utilized is by the development of a quadrant picture interpretation method to approach artistic creations within a diagnostic and therapeutic format. This picture interpretation method is the main focus of this study.

The quadrant schema, used in analytical Jungian psychology, attaches significance to specific areas of a drawing. Each of the four quadrants is associated with a different meaning. See Figure 1 for a diagram of the schema. The upper left hand area is associated with the father; the lower left is associated with the unconscious; the upper right is associated with the future; and the lower right is associated with the mother. This schema is sometimes used to

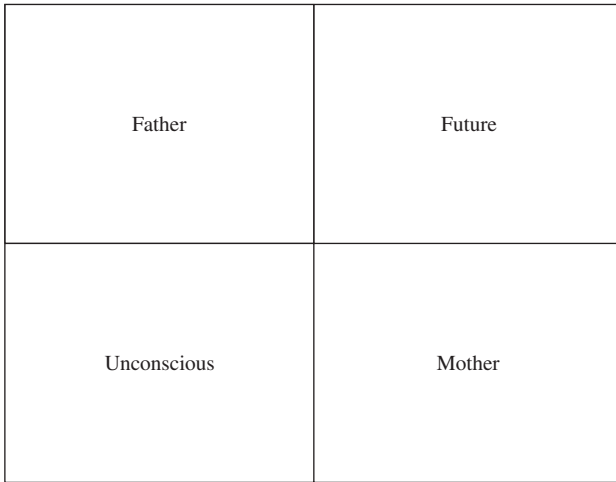


Figure 1: The Jungian picture interpretation schema

interpret artistic productions in therapy. For example, a black cloud in the upper right of a drawing might symbolize a difficult future, such as worsening depression and suicide attempts (Rosen 1996, p. 95).

The rationale behind this schema is that specific areas of a drawing tend to have a unique and significant meaning based on archetypal patterns. Building on Jolande Jacobi's ideas, it has been theorized that the upper right corner is the world of collective consciousness, society and future possibilities (Isaac 1981, p. 42). The lower right corner refers to the earth, primordial femininity, and the 'Great Mother' (p. 43). The lower left corner represents the unconscious, a place of regression, dependence and security, origins and fixation on old scars (p. 43). The upper left corner refers to father and reflects spirit, Logos, 'Wise Old Man' archetype, and authority (p. 44).

Jungians are not the only therapists who have used a quadrant method in analysing artistic productions. For example, the art therapist Susan Bach developed a quadrant method based on her work with severely ill children who painted how they felt (Bach 1990, pp. 39–41). In her quadrant system, the upper right is associated with the here and now; the lower right is associated with the immediate past or potential future; the lower left is associated with the place of darkness and the unknown, and the upper left is associated with the setting sun. Based on empirical research, she has found this system to be of value. It is worthy noting that of the quadrants in her system, the upper left (because the sun is often associated with the father) and lower left (because it sounds like the unconscious), appear to be very similar to the respective quadrants in the schema being studied.

Gregg Furth, a Jungian analyst who specializes in art therapy, offers a contrasting viewpoint. He finds the quadrant method of picture interpretation

used in analytical psychology unproven in its reliability and validity (1988, p. 109). A similar criticism has been made by Wadeson (1980, p. 329), who stated that a tendency to resort to speculation without scientific substantiation is problematic in art therapy. Furth does recognize the empirical findings supporting Bach's system, but he also pointed out that her theory was derived from studying seriously ill children, a very specialized sample. Furth is concerned that quadrant theories are used as recipes with cookbook interpretations, which ignore pictures as a unified whole. They also tend to overlook the dynamic and complex nature of the therapeutic interaction. Furthermore, they often disregard other important elements in drawings. It is with such criticism in mind that the present study on the Jungian quadrant method of picture interpretation was conducted.

Although this Jungian quadrant schema is intriguing, and at times seeing it put into practice makes it appear valid and useful, it certainly leads inquisitive minds to wonder about many things. Do the particular areas of a drawing have specific symbolic meanings as this schema suggests (is it valid)? Could this schema be more accessible to certain individuals than others? Specifically, could individuals with specific psychological types within Jung's personality theory respond more readily to this schema than others? As far as we know, there are no scientific studies regarding any of these questions. As Gregg Furth states, 'quadrant theory is included in the curriculum at the C. G. Jung Institute in Zürich, though I have not seen nor have I heard of any scientific studies to validate this particular approach (1988, p. 110)'.

Three questions served as the foci of the present study. The first question addressed was the validity of the Jungian quadrant schema. This study investigated the association between particular quadrants of a drawing and the proposed meanings suggested by this schema. Two different tests were used to address this question: a space domain test and a colour associative test. In the space domain test, individuals were asked to draw four pictures concerning each of the four aspects of the schema. Based on the theory, it was hypothesized that the pictures drawn should tend to appear in the associated quadrants at a rate higher than chance. In the colour associative test, an individual associated a particular colour with each of the four aspects of the schema. They were then asked to draw a picture with the four colours they selected. Following the theory of this schema, it was hypothesized that these colours should appear at a percentage greater than chance in the associated quadrants of the drawings.

The second question was whether certain Jungian psychological types would respond better than others to the schema. In other words, the question was whether the quadrant interpretation schema was more valid for some personality types than for others. Jung's (1971) typology is based on two attitudes and four function types. The two different attitudes are: introversion, where one focuses on the inner world; and extraversion, where one focuses on the outer world. The four functions are divided as such: the way one perceives

things, which is labelled as either sensation (based on description and objectivity) or intuition (based on possibilities and subjectivity); and the way one judges things, which is labelled as thinking (based on reasoning and logic) or feeling (based on evaluating importance and desirability). It was hypothesized that individuals with an introverted, intuitive, feeling typology will perform better than other individuals. Introverted, intuitive, feeling individuals ought to be more aware of and better able to express unconscious issues and conflicts, as they are by definition more often aware of such states.

The third question addressed was whether an individual's emotional response to the drawing influences the validity of the schema. Each of the four subjects of the schema (father, unconscious, mother, future) can lead to varied emotional responses in different people. The schema, if valid, would be focused on archetypal complexes relating to the mother and father, and the past and future. Since complexes are rich in emotionality, it seems reasonable to suggest that this dimension would influence the schema. Thus, it was hypothesized that the schema would be more valid for individuals with high levels of emotional arousal in response to their picture.

The importance of the present study is that these particular questions about the validity of this schema have not yet been empirically addressed in the literature. Nevertheless, this approach is taught in the Jung Institute in Zürich and is used in therapy and analysis. Thus, it seems important to examine empirically the validity of this schema. Otherwise, an invalid method may continue to be taught and used in interpreting art productions in therapy, or it may be used in the wrong contexts with the wrong expectations. Also, addressing the questions of psychological types and emotionality is important. If this schema were shown to be more valid for different psychological types and emotional responses, it would suggest that this Jungian interpretive schema would best be utilized with a particular set of individuals. Although these two dimensions do not certainly provide an exhaustive breakdown of individual characteristics that could influence this schema, they do begin to address this issue.

It is also important to emphasize that quadrant theories are not the only methods of interpreting drawings. Isaac Jolles (1977) offers another method based on spatial orientation. This approach divides a drawing into two halves, depending on where the drawing is most concentrated. An imbalance to the bottom half indicates a tendency to be reality bound, while imbalances to the top half indicate aloofness and tendencies to dwell in fantasy. On the other hand, a drawing concentrated in the left half leans toward the unconscious, while a drawing in the right half leans toward the conscious.

Besides her quadrant theory, Bach (1990) lists other important factors to consider in examining drawings. These include: archetypal motifs, colours, direction, missing or distorted objects, and others. Similarly, Furth (1988) offers key issues to consider in interpreting drawings, such as: the feeling conveyed, barriers, what is central, proportions, perspective, and many others. There is a lot of overlap between what Bach and Furth consider to be important

in a drawing, which is not unexpected, given that Furth (1988) partially derived his approach and analytical perspective from Bach (1990).

Joy Schaverien (1992) offers an additional perspective on interpreting drawings and paintings. She posits that these artistic productions can provide a source of information about transference in the therapeutic relationship. This concept is pivotal to psychoanalysis and analytical psychotherapy. Through transference, affect experienced in the past can be brought into the present. This allows for the opportunity to change patterns within one's inner world. An important aspect of her approach is applying the idea of transference to artistic creations.

It is clear that there are a variety of techniques and methods used to interpret drawings in art therapy. In this study we only focused on the quadrant method of picture interpretation. The questions asked in this study, however, go beyond the scope of this particular schema. These questions are important to ask in any case where a theory is being utilized. One must always check to see if a theory is practical and accurate in its predictions. The general question being asked is whether quadrant techniques are valid. Do such techniques lead to consistent predictions based on theory? Although this study cannot address all quadrant methods, such questions should be asked about any method without an empirical grounding.

## Method

### *Participants*

Two hundred and seven undergraduate college students from Introduction to Psychology participated in this study (94 males, 113 females). The ethnicity of the sample was primarily Caucasian (157, 76%), but also included Hispanic (24, 12%), African-American (13, 6%), Asian (8, 4%), and others (5, 2%). Overall, 104 participants completed the space domain test, and 103 participants completed the colour associative test. Participants ranged in age from 17 to 42 years ( $M=19.07$ ,  $SD=1.68$ ).

### *Measures*

*Personal Preferences Self-Description Questionnaire.* Participants were given the Personal Preferences Self-Description Questionnaire (PPSDQ, Thompson 1996), which measures Jungian typology. It contains one hundred and fifteen items (word pairs and sentences) rated on a seven-point Likert scale. Each word pair is presented as a semantic differential scale in which a seven-point Likert scale is presented between each pair of words, and participants chose the number that represents the word that best describes them. The sentence items are also scored on a seven-point Likert scale, indicating degree of agreement or disagreement with each statement. This yields four scores, each of

which represents two poles: extraversion/introversion (E/I), sensation/intuition (S/N), thinking/feeling (T/F), and judgement/perception (J/P). Scores reveal a tendency towards one of the two poles; if one is below the mean on their score, they tend towards the first of the two poles (extraversion for E/I, sensation for S/N, thinking for T/F, and judgement for J/P); if they are above the mean, they tend towards the second pole (introversion for E/I, intuition for S/N, feeling for T/F, and perception for J/P).

Several psychometric studies of the PPSDQ scores have been reported. Construct validity has been demonstrated with confirmatory factor analysis (Thompson & Melancon 1995, 1996). Convergent validity has been demonstrated through strong correlations between PPSDQ and MBTI scores (Thompson & Stone 1994) as well as predicted correlations between PPSDQ scores and constructs from the five-factor model of personality (Arnau, Thompson & Rosen 1999). Internal consistency has been demonstrated, with alpha coefficients ranging from .83 to .90 (Arnau et al. 1999). Temporal stability of PPSDQ scores has also been demonstrated, with re-test coefficients ranging from .79 to .88 over a two-week re-test period (Thompson & Arnau 1998).

*Self-Assessment Manikin.* The Self-Assessment Manikin (SAM; Bradley & Lang 1994) was administered to assess participants' emotional responses to the picture they drew. The SAM is a self-report instrument that measures one's emotional response to a given stimulus on two dimensions: valence and arousal. Valence refers to whether the stimulus is pleasant or unpleasant. Arousal refers to whether it is exciting or calming. The SAM consists of two sets of five cartoon pictographs depicting different levels of affective valence and arousal. For each dimension, participants were instructed to place an 'X' on or between the figures that best described their emotional response to the picture they drew. Thus, valence and arousal are effectively rated on a nine-point Likert scale.

*Procedure.* Before subjects arrived for the study, one of the proctors placed a blank sheet of paper, a box of crayons, and a pencil on the desks in the room designated for the study. Once all the subjects had arrived, they were given an instructions sheet, which the proctor also read over verbally.

Participants were first instructed to fill out the PPSDQ. Next, they were instructed to do one of two different tasks, depending on the study to which they were assigned. Roughly half of the participants were assigned to do the Space Domain Test, and the other half were assigned to do the Colour Associative Test.

*Space Domain Test.* Participants taking the space domain task were asked to make four drawings on one sheet of paper regarding each of the following four subjects: remembrances of mother, remembrances of father, things that

occur to them when alone (to correspond with the unconscious), and things that occur to them when they think about the future. In order for the experimenter to later identify which pictures corresponded to which subject, participants were also asked to label their drawings according to the four subjects. Participants then rated their emotional reaction to each of these four drawings by using the SAM scale.

*Colour associative test.* Participants taking the colour associative test were asked to associate one colour out of a box of sixteen crayons with each of the four schema subjects described above. Then, they were asked to make a drawing reflecting how they felt at the moment, using their four chosen colours. Finally, participants were asked to rate their emotional reaction to their drawings using the SAM scale.

Six different sessions were run for this study. Three sessions utilized the space domain test, while the other three utilized the colour associative test. Approximately thirty to forty subjects participated in each session.

### *Data analysis*

Before statistical analyses could be conducted, the raw data (i.e., pictures drawn by participants) had to be coded in a way so as to yield meaningful quantitative data. The general idea behind the coding scheme was to yield a quantification of the proportion of a drawing (or colour) that appeared in the theoretically correct quadrant as opposed to the proportion that appeared in the theoretically incorrect quadrants. The following is a description of the coding process.

*Coding and analysis of drawings.* Sixteen variables were coded for each drawing. These variables represented the degree of presence of the four drawings/colours in each of the four quadrants (4 pictures/colours x 4 quadrants = 16). In other words, 4 variables were coded for each picture (or colour), one representing the degree of presence of that picture (or colour) in the theoretically correct quadrant, and the other three variables representing the degree of presence of that picture (or colour) in each of the remaining three theoretically incorrect quadrants. The degree of presence of a drawing (or colour) was determined by using a grid system. See Figure 2 for a diagram of this grid system. The grid divides each quadrant into sixteen boxes. The grid was printed onto a transparency and then laid over the drawings. If a drawing/colour was present in a box, it received a value of one for that box. These values were determined for all sixteen boxes and added up, thus yielding a quantitative score of the degree of presence of each particular drawing/colour in each of the four quadrants. Thus, each variable had a range of 0 to 16, with 0 indicating no proportion of a drawing/colour in that

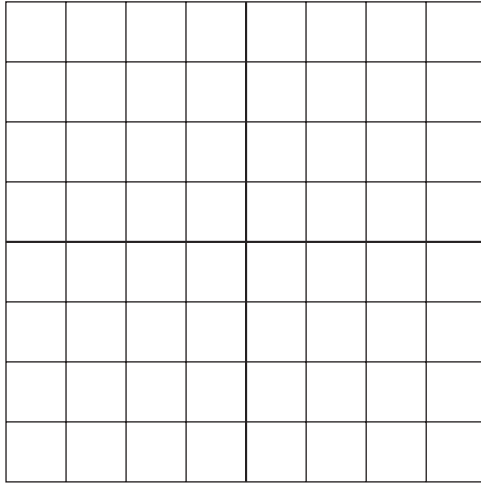


Figure 2: Grid system

quadrant, and 16 indicating the presence of that drawing/colour in all 16 grid boxes in that quadrant.

What we wished to analyse was not simply whether a particular picture (or colour) was merely present in the theoretically correct quadrant, but also the degree to which it did not appear in the theoretically incorrect quadrants. It would be meaningless if some proportion of a drawing appeared in the theoretically correct quadrant, if that same drawing also overlapped to a large degree with other, theoretically incorrect quadrants. Therefore, difference scores were computed that represented the relative proportion of a drawing/colour in the theoretically correct quadrant to that which appeared in the incorrect quadrants. Therefore, eight difference scores were computed.

First, there were four difference scores associated with each quadrant, which were given these names: FatherQuadrantDifference (FaQD), Unconscious-QuadrantDifference (UnQD), MotherQuadrantDifference (MoQD), and FutureQuadrantDifference (FuQD). These variables reflect the proportion of the associated drawing/colour present in its quadrant, as compared to the other three drawings/colours in the quadrant (within-quadrant analysis). According to the Jungian schema, a drawing/colour associated with a quadrant should appear most in that quadrant. To find these values, the differences between the associated drawing/colour for a given quadrant and the other three drawings/colours were determined. This produced three differences, which were summed, producing a value that can be between +16 and -16; positive values indicate an overall higher proportion of an associated drawing/colour in a particular quadrant compared to the other drawings/colours, while negative values indicate a higher proportion of the unassociated drawings/colours in that quadrant. A score close to 0 would indicate no particular dominance of



either the theoretically correct drawing/colour relative to the other drawings/colour. A t-test was then performed to determine whether the mean difference scores were statistically different from 0. Although all of the t-tests performed represented 'planned' comparisons with theoretically hypothesized results, a more conservative p-value of .01 was used to indicate statistical significance for the current study.

Second, there were four difference scores associated with each drawing/colour, which were given these names: FatherDrawing/ColourDifference (FaDCD), UnconsciousDrawing/ColourDifference (UnDCD), MotherDrawing/ColourDifference (MoDCD), and FutureDrawing/ColourDifference (FuDCD). This variable reflects the proportion of an associated drawing/colour in its theoretically correct quadrant, as compared to the amount of that drawing/colour in the other three quadrants (between-quadrant analysis). Following the Jungian schema, a particular drawing/colour should be most concentrated in its associated quadrant. To find these values, the differences between the associated drawing/colour for a given quadrant and the presence of that same drawing/colour in the other three quadrants were determined. This likewise produced three differences, which were summed. T-tests were performed to determine if these mean difference scores were statistically different from 0. As previously mentioned, a more conservative alpha level of .01 was used to determine statistical significance.

*Coding and analysis of PPSDQ.* One of the hypotheses of this study is that individuals with introverted, intuitive, and feeling typologies will perform better than other typologies in fitting the Jungian schema. To test this hypothesis, each of the three dimensions was examined. The E/I, S/N, and T/F scores were used to divide participants into two groups: one below the mean (extraverted, sensation, and thinking groups), and one above the mean (introverted, intuitive, and feeling groups).

After this analysis was performed, the drawings of the introverted, intuitive, and feeling groups were analysed in the same manner as above (means analysis and t-tests). This was done for both the space domain and the colour associative groups.

*Coding and analysis of the SAM.* Another hypothesis of this study is that the schema would be valid for individuals with high levels of emotional arousal in response to their drawings. To test this, participants were divided into two groups based on the arousal dimension of the SAM: one below the mean (excited), and one above the mean (calm). The drawings of the excited group were then analysed in the same manner as above (means analysis and t-tests). This was done for both the space domain and the colour associative groups.

## Results

### *Schema validity*

Statistical analyses for the coded drawing variables are presented in Table 1, Schema Validity Results for the Space Domain Test, and Table 2, Schema Validity Results for the Colour Associative Test. Only two statistically significant effects were found. First, the data revealed evidence for the tendency of participants to place drawings of the unconscious in the unconscious quadrant, according to the space domain test. Second, the data revealed a statistically significant effect for participants to *not* place the mother colour in the mother quadrant, determined by the colour associative test. The other fourteen variables analysed revealed no statistically significant effects.

**Table 1. Schema Validity Results for the Space Domain Test**

	<i>N</i>	<i>Mean</i>	<i>T-value</i>	<i>p-value</i>
FaQD	104	0.386	0.023	0.981
UnQD	104	4.846	3.051	0.003*
MoQD	104	-0.202	-0.161	0.872
FuQD	104	0.942	0.683	0.496
FaDCD	104	2.403	1.654	0.101
UnDCD	104	4.625	2.905	0.004*
MoDCD	104	-1.731	-1.183	0.241
FuDCD	104	0.327	0.239	0.811

Note: \* = statistically significant at  $p < .01$ . P-values represent the likelihood of obtaining a particular statistic. Thus, p-values of less than .05 ( $p < .05$ ) means that there is a probability of less than .05 (or less than 1 out of 20 chances) of obtaining a particular correlation of that size, given that the true correlation in the population is 0.00. The usual statistic used is  $p < .05$ , but we have adjusted our level of significance to a more conservative  $p < .01$  (or less than 1 out of 100). This means that all the reported statistically significant results are more likely to be valid.

**Table 2. Schema Validity Results for the Colour Associative Test**

	<i>N</i>	<i>Mean</i>	<i>T-value</i>	<i>p-value</i>
FaQD	103	0.243	0.185	0.854
UnQD	103	0.991	0.783	0.435
MoQD	103	-4.146	-3.591	0.001*
FuQD	103	2.311	1.612	0.111
FaDCD	103	-0.107	-0.086	0.931
UnDCD	103	1.418	1.474	0.144
MoDCD	103	-2.505	-2.644	0.009*
FuDCD	103	0.592	0.518	0.605

Note: \* = statistically significant at  $p < .01$

*Effect of psychological types*

The results of the statistical analyses using different personality types can be seen in Table 3, Effect of Psychological Types for the Space Domain Test, and Table 4, Effect of Psychological Types for the Colour Associative Test. As seen in Tables 3 and 4, there were no statistically significant effects when the data were analysed separately for the introverted, intuitive, and feeling groups. Although there were trends toward a positive effect for the unconscious quadrant and a negative effect for the mother quadrant that parallel the results from analyses with the complete sample, they were generally not statistically significant at the .01 level when the analyses were divided into groups based on typology. However, this may have been due, at least in part, to a decrease in power that resulted from the decrease in sample size with these sub-group

**Table 3. Effect of Psychological Types for the Space Domain Test**

	<i>N</i>	<i>Mean</i>	<i>t-value</i>	<i>p-value</i>
<i>Introversion</i>				
FaQD	47	1.447	0.761	0.451
UnQD	47	3.383	1.547	0.129
MoQD	47	0.638	0.344	0.733
FuQD	47	2.766	1.324	0.192
FaDCD	47	4.011	1.957	0.056
UnDCD	47	2.638	1.181	0.244
MoDCD	47	-0.553	-0.302	0.764
FuDCD	47	2.149	1.011	0.317
<i>Intuitive</i>				
FaQD	45	-0.022	-0.009	0.993
UnQD	45	6.533	2.417	0.021
MoQD	45	0.356	0.174	0.863
FuQD	45	0.867	0.432	0.668
FaDCD	45	1.489	0.648	0.522
UnDCD	45	6.422	2.373	0.022
MoDCD	45	-0.401	-0.202	0.841
FuDCD	45	0.222	0.105	0.917
<i>Feeling</i>				
FaQD	50	1.078	0.371	0.712
UnQD	50	6.882	2.718	0.009*
MoQD	50	-1.059	-0.604	0.548
FuQD	50	0.569	0.273	0.786
FaDCD	50	4.372	1.895	0.064
UnDCD	50	6.353	2.431	0.019
MoDCD	50	-3.216	-1.365	0.178
FuDCD	50	-0.039	-0.021	0.984

Note: \* = statistically significant at  $p < .01$

Table 4. Effect of Psychological Types for the Colour Associative Test

	N	Mean	T-value	p-value
<i>Introversion</i>				
FaQD	41	1.881	0.843	0.404
UnQD	41	0.905	0.436	0.665
MoQD	41	-4.833	-2.673	0.011
FuQD	41	-0.904	-0.549	0.586
FaDCD	41	1.012	0.561	0.578
UnDCD	41	-0.238	-0.164	0.871
MoDCD	41	-2.833	-1.955	0.057
FuDCD	41	-0.881	-0.561	0.578
<i>Intuitive</i>				
FaQD	41	1.548	0.707	0.483
UnQD	41	2.691	1.231	0.225
MoQD	41	-3.595	-2.141	0.038
FuQD	41	-2.738	-1.471	0.149
FaDCD	41	2.976	1.869	0.069
UnDCD	41	-0.047	-0.035	0.972
MoDCD	41	-3.143	-1.772	0.084
FuDCD	41	-1.881	-1.091	0.281
<i>Feeling</i>				
FaQD	51	-1.365	-0.903	0.371
UnQD	51	2.539	1.232	0.223
MoQD	51	-2.846	-1.616	0.112
FuQD	51	1.788	0.935	0.354
FaDCD	51	0.307	0.171	0.865
UnDCD	51	0.904	0.632	0.531
MoDCD	51	-1.827	-1.222	0.227
FuDCD	51	0.731	0.535	0.595

Note: \*=statistically significant at  $p < .01$

analyses. Nevertheless, these results indicate that the interpretive schema under study does not work any better or any worse for particular psychological types.

#### *Effect of strong emotional responses*

The results of the analyses of people with high and low arousal responses to the drawings are presented in Table 5, Effect of Strong Emotional Responses for the Space Domain Test, and Table 6, Effect of Strong Emotional Responses for the Colour Associative Test. As was the case for the separate analyses by psychological type, the analyses conducted separately for the group with high arousal to their drawings yielded the following results: (a) some of the same

Table 5. Effect of Strong Emotional Responses for the Space Domain Test

	N	Mean	T-value	p-value
<i>Father Picture Arousal</i>				
FaQD	36	-0.378	-0.156	0.877
UnQD	36	5.487	1.943	0.061
MoQD	36	-1.678	-0.877	0.387
FuQD	36	-0.027	-0.013	0.991
FaDCD	36	1.243	0.531	0.601
UnDCD	36	5.568	1.943	0.063
MoDCD	36	-1.676	-0.991	0.328
FuDCD	36	-1.731	-0.851	0.401
<i>Unconscious Picture Arousal</i>				
FaQD	42	0.047	0.026	0.979
UnQD	42	6.001	2.645	0.011
MoQD	42	-1.721	-1.126	0.267
FuQD	42	-0.605	-0.319	0.751
FaDCD	42	1.419	0.711	0.482
UnDCD	42	5.698	2.445	0.019
MoDCD	42	-2.395	-1.646	0.107
FuDCD	42	-1.001	-0.577	0.567
<i>Mother Picture Arousal</i>				
FaQD	48	-0.188	-0.114	0.911
UnQD	48	2.771	1.344	0.185
MoQD	48	1.001	0.535	0.595
FuQD	48	0.854	0.491	0.627
FaDCD	48	1.562	0.886	0.381
UnDCD	48	2.396	1.148	0.257
MoDCD	48	-0.833	-0.046	0.964
FuDCD	48	0.562	0.315	0.754
<i>Future Picture Arousal</i>				
FaQD	22	-0.136	-0.051	0.961
UnQD	22	4.954	1.395	0.177
MoQD	22	-2.863	-1.212	0.239
FuQD	22	1.909	0.658	0.518
FaDCD	22	1.634	0.578	0.569
UnDCD	22	5.227	1.464	0.158
MoDCD	22	-4.546	-1.888	0.073
FuDCD	22	1.545	0.524	0.606

Note: \* =statistically significant at  $p < .01$

trends as those found with the analyses of the complete sample, but this time with the only effect statistically significant at the .01 level being the negative effect for the mother quadrant for the colour-associative test, and (b) no new

**Table 6. Effect of Strong Emotional Responses for the Colour Associative Test**

<i>High Arousal Group</i>	<i>N</i>	<i>Mean</i>	<i>T-value</i>	<i>p-value</i>
FaQD	46	2.085	0.902	0.372
UnQD	46	0.809	0.412	0.682
MoQD	46	-4.894	-2.739	0.009*
FuQD	46	0.213	0.095	0.924
FaDCD	46	0.319	0.167	0.868
UnDCD	46	0.831	0.563	0.576
MoDCD	46	-3.064	-2.403	0.022
FuDCD	46	0.128	0.073	0.942

Note: \* = statistically significant at  $p < .01$

statistically significant results. Therefore, these results indicate that the interpretive schema under study does not work any better or any worse for individuals with high emotional arousal responses to the generated drawings.

### Discussion and summary

The results of this study suggest that the Jungian quadrant schema used for picture interpretation is not valid. Most of the results suggest a random, insignificant relation between the drawings/colours and their supposedly associated quadrants. Still, two significant results were found: a tendency to place the unconscious drawings in the unconscious quadrant (in the space domain test), and a tendency to not place the mother colour in the mother quadrant (in the colour associative test). The first result suggests that the quadrant schema may be partially valid in placing the unconscious in the lower left. Recall that Bach (Bach 1990, p. 40), in her study on severely ill children, found that the lower left quadrant was 'the place of darkness and the unknown', which is another way of characterizing the unconscious. This study partially supports that finding in her study. The second result suggests that lower right is not the mother quadrant. However, these results were test specific. The effect for the unconscious quadrant was specific to the space domain test, and the negative effect for the mother quadrant was specific to the colour associative test. This makes either result seem questionable. However, it may be that the space domain test taps into the ability to 'know' that the unconscious is 'the place of darkness and the unknown' as Bach found in her study. Clearly more research with different populations is needed.

The present study has several important implications. First, it suggests that the Jungian schema is not valid, and so it seems to follow that use of the schema should be questioned. Hence, Furth's call for the scientific investigation of the Jungian quadrant schema seems wise and prophetic (Furth 1988, p. 109).

However, it is problematic to generalize from one study, so we too suggest that further empirical studies be done on this quadrant schema. Further studies may support, add to, or even refute the present study. Other approaches to testing the validity of the schema, besides the space domain and colour associative tests used here, could be informative and shed a new light on the subject. Also, different populations (age-wise and cross-cultural) need to be studied; in particular, it would be potentially worthwhile to carry out this type of research with a group of Jungian analysands or patients involved in Jungian-oriented psychotherapy, which incorporates art and active imagination with the therapy.

---

#### TRANSLATIONS OF ABSTRACT

Cette étude considère le schéma d'interprétation de dessins qui utilisent une méthode particulière de découpage de la feuille en quadrants. Ce schéma est utilisé dans la formation à l'Institut C.G. Jung de Zürich. Il accorde de l'importance à des parties déterminées de la feuille du dessin. Le haut gauche est associé au père, le bas gauche à l'inconscient; le bas droit à la mère; et le haut droit au futur. Trois questions structurent cette étude: Est-ce que le schéma est valable? Est-ce que certaines typologies telles que définies dans la théorie de la personnalité par Jung adhèrent mieux que d'autres au schéma? Est-ce que le travail sur le schéma marche mieux lorsqu'il provoque une forte réaction affective chez la personne qui a fait le dessin? Les sujets étudiés ont passé un test parmi deux: un test sur l'espace et un test d'associations de couleurs. Les résultats ne montrent que deux effets significatifs: une association positive (dans le test sur l'espace) entre le matériel inconscient et le quadrant de l'inconscient et une association négative (dans le test des associations de couleurs) entre le matériel sur la mère et le quadrant assigné à la mère. Ces résultats laissent à penser que le schéma divisé par quadrants utilisé pour l'interprétation des dessins n'est pas valable et qu'il est d'une utilité pratique très faible. D'autres méthodes d'interprétations de dessins sont présentées et des suggestions pour de futures recherches en ce domaine sont avancées.

---

In dieser Arbeit wurde ein Jungianisches Schema zur Interpretation von Bildern untersucht, das eine spezifische Quadrantenmethode verwendet. Dieses vorgestellte Schema, das in der Ausbildung am C. G. Jung-Institut in Zürich verwendet wird, ordnet spezifischen Bereichen einer Zeichnung Bedeutung zu. Der obere linke Quadrant ist mit dem Vater assoziiert, der untere links mit dem Unbewußten; der untere rechte ist mit der Mutter assoziiert, der obere rechte mit der Zukunft. Diese Arbeit hat sich auf drei Fragen konzentriert: ist dieses Schema valide? Reagieren bestimmte Typen innerhalb von Jung's Persönlichkeitstheorie besser als andere auf dieses Schema? Wirkt das Schema am besten, wenn es eine starke affective Reaktion bei der Person hervorruft, welche das Bild geschaffen hat? Die Teilnehmer führten einen von zwei Tests durch: einen Space Domain Test oder einen Farbassoziationstest. Die Ergebnisse zeigten nur zwei signifikante Auswirkungen: eine positive Assoziation (im Farbassoziationstest) von auf die Mutter bezogenem Material mit dem Mutter-Quadranten. Diese Ergebnisse lassen vermuten, daß das Jungianische Quadrant Schema, das für die Interpretation von

Zeichnungen verwendet wird, nicht valide und von minimaler praktischer Bedeutsamkeit ist. Andere Methoden der Bildinterpretation werden diskutiert, Vorschläge für zukünftige Forschung werden gemacht, die für dieses Forschungsgebiet hilfreich wäre.

Questo studio esamina uno schema junghiano di interpretazione del disegno che utilizza un particolare metodo del quadrante. Tale schema, che viene utilizzato durante il training allo Jung Institute di Zurigo, conferisce significato a specifiche aree di un disegno. La parte superiore sinistra è associata al padre, quella inferiore sinistra all'inconscio, l'inferiore destra alla madre e la superiore destra al futuro. Tre sono le domande alla base di questo studio: questo schema è valido? Certi tipi della teoria della personalità di Jung rispondono meglio di altri allo schema? Tale schema funziona meglio quando suscita risposte fortemente affettive da parte di chi ha creato il disegno? I soggetti utilizzarono uno dei due test: un test a dominante spaziale e un test di associazione dei colori. I risultati rivelarono solo due effetti significanti: un'associazione positiva (nel test a dominante spaziale) tra il materiale inconscio con il quadrante relativo all'inconscio e un'associazione negativa (nel test di associazione dei colori) del materiale riguardante la madre con il quadrante relativo alla madre. Questi risultati fanno pensare che lo schema junghiano del quadrante usato per l'interpretazione dei disegni non sia valido e di minima utilità pratica. Vengono discussi altri metodi di interpretazione del disegno e alcune ipotesi per una futura ricerca che possano essere di utilità pratica in questo campo.

Este estudio examinó el esquema Junguiano de interpretación de pinturas, este utiliza el método específico del cuadrante. El esquema propuesto, el cual es usado en el entrenamiento en el Instituto de Zurich, otorga significado a áreas específicas del dibujo. La porción izquierda superior de un dibujo se asocia con el padre; la inferior izquierda con el inconsciente; la inferior derecha con la madre; y la superior derecha con el futuro. Tres preguntas sirvieron como foco para este estudio: ¿Es válido este esquema? ¿Será que algunos tipos dentro de la teoría Junguiana de la personalidad responden mejor que otros a este esquema? ¿Responderá mejor el esquema cuando este elicitó una fuerte respuesta afectiva de la persona que creara la pintura? Los sujetos tomaron uno de dos pruebas (test): La prueba de dominio del espacio, o la prueba de asociación de colores. Los resultados revelaron solo dos efectos significativos: Una asociación positiva (En la prueba de dominio del espacio) entre el material del inconsciente y el cuadrante del inconsciente y una asociación negativa (En la prueba de la asociación de colores) del material de la madre y el cuadrante de la madre. Estos resultados sugieren que el esquema Junguiano de los cuadrantes usado para interpretar dibujos es inválido y de una mínima utilidad práctica. Se discuten otros métodos para la interpretación de obras pictóricas y se hacen, así mismo, sugerencias para futuras investigaciones que puedan ser útiles en este campo.

## References

- Arnau, R., Thompson, B. & Rosen, D. (1999). 'Alternative measures of Jungian personality constructs'. *Measurement and Evaluation in Counseling and Development*, 32, 90-104.



- Bach, S. (1990). *Life Paints its own Span*. Einsiedeln, Switzerland: Daimon Verlag.
- Bradley, M. M. & Lang, P. J. (1994). 'Measuring emotion: the self-assessment-manikin and the semantic differential'. *Journal of Behavioral Therapy and Experimental Psychiatry*, 25, 49–59.
- Furth, G. M. (1988). *The Secret World of Drawings: Healing through Art*. Boston, Massachusetts: Sigo Press.
- Isaac-Kassof, R. (1981). *Guided Picture Series and the Role of the Helper as Midwife*. Unpublished Diploma Thesis, C. G. Jung Institute, Zürich.
- Jolles, I. (1971). Catalogue for the interpretation of the House-Tree-Person: HFP Los Angeles: Western Psychological Services, 1971.
- Jung, C. G. (1916). *The Transcendent Function*. CW 8.
- (1971). *Psychological Types*. CW 6.
- Rosen, D. H. (1996). *Transforming Depression: Healing the Soul through Creativity*. New York: Penguin Books [New edn. 2002 by Nicolas-Hays, York Beach, Maine].
- Schaverien, J. (1992). *The Revealing Image*. New York: Routledge.
- Thompson, B. (1996). *Personal Preferences Self-Description Questionnaire*. College Station, TX: Psychometrics Group.
- Thompson, B. & Arnau, R. C. (1998, November). 'Stability and internal consistency reliability of Personal Preferences Self-Description Questionnaire (PPSDQ) scores'. Paper presented at the annual meeting of the mid-South Educational Research Association, New Orleans, LA. (ERIC Document Reproduction Service No. ED 426 089).
- Thompson, B. & Melancon, J. G. (1995, January). 'Measurement integrity of scores from a self-description checklist evaluating Myers-Briggs Type Indicator (MBTI) types: A confirmatory factor analysis'. Paper presented at the annual meeting of the mid-South Educational Research Association, Dallas, TX. (ERIC Document Reproduction Service No. ED 380 487).
- Thompson, B. & Melancon, J. G. (1996, January). 'Measuring Jungian psychological types: Some confirmatory factor analyses'. Paper presented at the annual meeting of the mid-South Educational Research Association, New Orleans, LA. (ERIC Document Reproduction Service No. ED 393 872).
- Thompson, B. & Stone, E. (1994, January). 'Concurrent Validity of scores from an adjectival Self-description checklist in relation to Myers-Briggs Type Indicator (MBTI) scores'. Paper presented at the annual meeting of the mid-South Educational Research Association, Dallas, TX. (ERIC Document Reproduction Service No. ED 367 706).
- Vacha-Haase, T. & Thompson, B. (1999). 'Psychometric evaluation of a newly-developed measure of psychological type'. Paper presented at the annual meeting of the American Psychological Association, Boston, MA, August 1999.
- Wadeson, H. (1980). *Art Psychotherapy*. New York: John Wiley.

[MS first received June 2001; final version April 2002]