

# Perceptual Style Correlates for the MBTI

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*Specific relationships are found between type and perceptual style.*

The definition of behavioral correlates for scales of the Myers-Briggs Type Indicator (MBTI) continues to demonstrate its construct validity with respect to Jungian typology. A recent example of this was presented by Ware, Yokomoto, and Paul (1984), linking perceptual motor performance with extraverted or introverted attitude (Einstellung).

Previous studies of cognitive style have not demonstrated a significant relationship between the perceiving function (S or N) and measures of perceptual style, such as field dependence-independence (Bissiri, 1971; Kauppi, 1981). As a matter of fact, there was some evidence that perceptual style may be more closely related to Einstellung rather than to the perceiving function (Stanfiel, 1966).

However, the theoretical relationship between perceptual style and the perceiving function does deserve re-examination. Any casual reading of Jung's (1923) definition of the perceiving functions makes clear that the structure of "incidental perceptions" is markedly different for persons preferring the Sensing to the Intuitive perceiving function.

Sensing is regarded as the conscious, stimulus bound apprehension of the world. It is "that psychological function which transmits a physical stimulus to perception. It is, therefore, identical with (sense) perception" (Jung, 1923, p. 585). In the field-dependent person, perception is so strongly dominated by the overall configuration of the embedding field that individual parts are experienced as fused (Witkin & Goodenough, 1981). Consequently, persons who are field dependent tend to do less well in solving that class of problems which requires isolating essential elements from the context in which they are presented. They are bound by their "sense perception." That is to say that the field dependent individual is bound by the context in which the stimulus or information is initially presented.

Intuition is that psychological function which transmits perceptions "by way of the

unconscious, accompanied by ideas and associations which the unconscious tacks on to the perceptions coming in from the outside. These unconscious contributions range from the merest masculine 'hunch' or woman's 'intuition' to the crowning examples of creative art or scientific discovery" (Myers, 1962, p. 51). Likewise, field independent persons are capable of overcoming the embedding context of stimulus presentation in order to examine elemental aspects of the field in a novel or creative manner (Witkin & Goodenough, 1981).

## Procedure

The purpose of this study was to examine the relationship between the Jungian perceiving function, as measured by the Myers Briggs-Type Indicator (MBTI), and the perceptual style of field dependence-independence, as measured by the Group Embedded Figures Test (GEFT). Both tests were administered to 51 matriculating students at Saint Meinrad College. These two tests were added to the entrance examinations administered to all incoming students during Orientation Week. Each test protocol was examined to make sure that it was appropriately completed. No protocol was disqualified. Protocols were kept paired so that student data for both the MBTI and the GEFT could be analyzed jointly.

Continuous scores were kept on each of the four scales of the MBTI. Scores on the GEFT could range from 0 to 18.

## Results and Discussion

An inspection of the type table evidenced the expected preference for E-FJ types typically associated with Roman Catholic College Seminarians (Holsworth, 1984). This extraverted feeling type accounted for 24% of the subjects in this sample. The continuing preference for extraversion can be seen in its over two to one representation in these data. The three to one preference for feeling

**Table 1. Type Distribution of Saint Meinrad Sample and Group Embedded Figures Test Means for All Types**  
*N* = 51      *l* = 1% of *N*

ISTJ <i>m</i> = 17.0 <i>n</i> = 2 (3.9%) IIII	ISFJ <i>m</i> = 11.0 <i>n</i> = 4 (7.8%) IIII III	INFJ <i>m</i> = 8.7 <i>n</i> = 3 (5.9%) IIII I	INTJ <i>m</i> = 13.0 <i>n</i> = 1 (2.0%) II
ISTP <i>m</i> = <i>n/a</i> <i>n</i> = 0 (0.0%)	ISFP <i>m</i> = 11.0 <i>n</i> = 1 (2.0%) II	INFP <i>m</i> = 8.0 <i>n</i> = 5 (9.8%) IIII III	INTP <i>m</i> = <i>n/a</i> <i>n</i> = 0 (0.0%)
ESTP <i>m</i> = 5.0 <i>n</i> = 2 (3.9%) IIII	ESFP <i>m</i> = 7.0 <i>n</i> = 4 (7.8%) IIII II	ENFP <i>m</i> = 14.3 <i>n</i> = 10 (19.6%) IIII IIII IIII	ENTP <i>m</i> = 5.0 <i>n</i> = 1 (2.0%) II
ESTJ <i>m</i> = 8.0 <i>n</i> = 1 (2.0%) II	ESFJ <i>m</i> = 10.3 <i>n</i> = 9 (17.6%) IIII IIII IIII II	ENFJ <i>m</i> = 6.3 <i>n</i> = 3 (5.9%) IIII I	ENTJ <i>m</i> = 14.2 <i>n</i> = 5 (9.8%) IIII IIII

Note: Mean for all subjects was 10.7, with an overall standard deviation of 3.3.

**Table 1 (continued) Summary Data**

E	<i>m</i> = 10.7	<i>n</i> = 35	(68.6%)
I	<i>m</i> = 10.5	<i>n</i> = 16	(31.4%)
S	<i>m</i> = 9.9	<i>n</i> = 23	(45.1%)
N	<i>m</i> = 11.3	<i>n</i> = 28	(54.9%)
T	<i>m</i> = 12.0	<i>n</i> = 12	(23.5%)
F	<i>m</i> = 10.4	<i>n</i> = 39	(76.5%)
J	<i>m</i> = 11.0	<i>n</i> = 28	(54.9%)
P	<i>m</i> = 10.3	<i>n</i> = 23	(45.1%)
IJ	<i>m</i> = 11.7	<i>n</i> = 10	(19.6%)
IP	<i>m</i> = 8.5	<i>n</i> = 6	(11.8%)
EP	<i>m</i> = 10.9	<i>n</i> = 17	(33.3%)
EJ	<i>m</i> = 10.6	<i>n</i> = 18	(35.3%)
ST	<i>m</i> = 10.4	<i>n</i> = 10	(19.6%)
SF	<i>m</i> = 9.8	<i>n</i> = 35	(68.6%)
NF	<i>m</i> = 10.9	<i>n</i> = 41	(80.4%)
NT	<i>m</i> = 12.7	<i>n</i> = 14	(27.4%)
SJ	<i>m</i> = 11.2	<i>n</i> = 16	(31.4%)
SP	<i>m</i> = 7.0	<i>n</i> = 7	(13.7%)
NP	<i>m</i> = 11.8	<i>n</i> = 16	(31.4%)
NJ	<i>m</i> = 10.8	<i>n</i> = 12	(23.5%)
TJ	<i>m</i> = 14.0	<i>n</i> = 9	(17.6%)
TP	<i>m</i> = 8.7	<i>n</i> = 3	( 5.9%)
FP	<i>m</i> = 11.1	<i>n</i> = 20	(39.2%)
FJ	<i>m</i> = 9.6	<i>n</i> = 19	(37.3%)
IN	<i>m</i> = 8.8	<i>n</i> = 9	(17.6%)
EN	<i>m</i> = 12.5	<i>n</i> = 19	(37.3%)
IS	<i>m</i> = 12.7	<i>n</i> = 7	(13.7%)
ES	<i>m</i> = 8.7	<i>n</i> = 16	(31.4%)
ET	<i>m</i> = 10.4	<i>n</i> = 9	(17.6%)
EF	<i>m</i> = 10.9	<i>n</i> = 26	(51.0%)
IF	<i>m</i> = 9.3	<i>n</i> = 13	(25.5%)
IT	<i>m</i> = 15.7	<i>n</i> = 3	( 5.9%)

over thinking was also consistent with these expectations.

The sample mean for the Group Embedded Figures Test was not significantly different from that which would have been expected for college aged students. The Saint Meinrad College data presented a mean of 10.68 (*s.d.* = 3.30), compared to an expected mean for college students of 11.27 ( $z = 1.28$ ). This suggested a group preference for field independent perceptual style.

Probability sentences were constructed to examine whether or not specific elements of the type table were significantly different from the overall sample mean. These sentences took the general form:

$$\begin{aligned} Pr(9.77 \leq \bar{x} \leq 11.58) &= .95 \\ Pr(9.49 \leq \bar{x} \leq 11.87) &= .99 \end{aligned}$$

Under these probability conditions, no significant difference from the overall mean was obtained in GEFT scores for MBTI scales of E-I, S-N, or J-P. There was a significant difference in scores obtained on the T-F scale ( $p \leq .001$ ). Thinking types (24%) were significantly more field independent in perceptual style than were feeling types or the overall group. The S-N scale approached but did not reach significance.

Introverted perceiving types (I-J, all of whom have a perceiving function —S or N— as their dominant function) scored significantly higher ( $\bar{x} = 11.70$ ,  $p \leq .01$ ) than the sample mean, suggesting they were more field independent than the sample group as a whole. Introverted judging types (I-P, all of whom have a judging function —T or F— as their dominant function) scored significantly lower ( $\bar{x} = 8.50$ ,  $p \leq .01$ ) than the sample mean, suggesting they were field dependent in perceptual style. The introverted judging type was the only type which scored as “field dependent” on the GEFT in this sample.

When the two functions were examined, ST and NF were statistically similar. These two types accounted for 51% of the data. Scores for SF were significantly lower than the sample mean ( $\bar{x} = 9.78$ ,  $p \leq .05$ ), suggesting more field dependent elements within this type. Scores for NT were significantly higher than the sample mean ( $\bar{x} = 12.71$ ,  $p \leq .01$ ), suggesting a strong field independent style within elements of this type.

Other aspects of the type table were difficult to interpret without further data (cf: TJ, TP, FP, FJ mean scores). Because of this, a multiple regression technique was employed to determine the significant contributing determinants of perceptual style. A least squares solution was obtained by identifying the GEFT score as the dependent variable. Scores of the four MBTI scales thus became the possible independent variables in the regression solution. For the purposes of this stepwise procedure, GEFT scores were transformed into standardized *t*-scores, thus avoiding an artificial restriction of range. The resulting linear equation accounted for 37% of the variance.

$$Y = 33.6 + .155 x(1) + .100 x(2) - .12 x(3)$$

where  $x(1)$  = MBTI variable S-N,  
 $x(2)$  = MBTI variable E-I,  
 and  
 $x(3)$  = MBTI variable T-F.

$$\begin{aligned} R &= .608 \\ F(3, 47) &= 3.78, p \leq .05. \end{aligned}$$

About one-half of the explanatory value of this regression solution was determined by the S-N scale (the perceiving function) of the MBTI. This suggested that the hypothesized relationship between field dependence-independence and the perceiving function of S-N was empirically validated ( $r = .28$ ). The addition of variables  $x(2)$  and  $x(3)$  suggested that the more Intuitive and Introverted an individual was, the more likely he or she was to employ a field independent perceptual style. More importantly, increasing strength of this relationship increased the likelihood that an individual would employ a logical, analytical judgment style.

Likewise, the more an individual employed Sensing as the preferred perceiving function, the more he or she would be field dependent in perceptual style. GEFT scores indicating field dependent perceptual style should be even more likely, then, if the individual scored in an Extraverted-Feeling manner.

The negative beta weight assigned to the T-F scale demonstrated the relationship between field independence and thinking judgement. This could assist in the explanation of high GEFT mean scores for ISTJ.

## Conclusions

Theoretically, IN types should have patience with abstractions and enjoy the complexity of disembedding information. However, solutions might tend to be impulsive, frequently without accounting for all the available data. Thus, the low sample means of INFJ and INFP might be explained. When thinking judgement is added to the IN type, analytical skills, both global and linear, are highlighted. In a well developed type, these judgement skills should check this "impulsive" trend.

As would be expected, a type anomaly does appear with the IS types. Hypothetically, these practical introverts would tend to approach the disembedding process in a linear, structural manner. In this sample, then, their performance was significantly better than the INT's, most probably because of their typical thorough, systematic approach to any task.

In conclusion, there does seem to be sufficient evidence to suggest that behavioral correlates for the MBTI do exist for perceptual style. However, instead of such correlates being solely determined by the perceiving function, the addition of attitude and judgement scales significantly enhances the prediction of perceptual style. The inclusion of Einstellung (Attitude) as a significant regression variable again underscores the importance of the MBTI E-I scale in the prediction of perceptual style, first noted by Stanfiel (1966). As, however, half of the sample variance is explained by the S-N scale, it would be safe to suggest that a significant relationship exists between that perceiving scale of the MBTI and perceptual style.

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