

Relationships between the MBTI and the FIRO-B

A replication of the study by Schnell, et al (1994) looking at the implications of their joint use in leadership development.

Introduction

The MBTI and FIRO-B are frequently used together when providing feedback to leaders. However, little exploration has been conducted on the empirical association between the dimensions of each instrument. The original paper by Schnell et al presented data about the relationships between MBTI preferences and the FIRO-B scales found in two samples of managers in the USA, and proposed interpretations of the data with regard to leadership development.

This paper replicates the work of Schnell et al, on a sample of UK managers.

Sample

The sample consisted of 424 people whose occupational level was described as middle management or above. This was a subset of a nationally representative sample of the UK population. Biographical details of the sample are shown in Figure 1 below.

Figure 1: Sample details

Gender	N	%
Male	223	(52.8%)
Female	199	(47.2%)
Age		
20 – 29	74	(17.7%)
30 – 39	133	(31.9%)
40 – 49	112	(26.9%)
50 – 59	68	(16.3%)
60 – 69	30	(7.2%)

The distribution of MBTI preferences was E (52.8%) and I (42.7%), S (69.1%) and N (30.9%), T (53.3%) and F (46.7%), J (65.3%) and P (34.7%). The most common MBTI types were ISTJ, ESTJ, ESFJ, and ISFJ.

Hypotheses

The major question for this, and the previous exploratory research, was: How does psychological type differ across FIRO-B dimensions?

The following (expected) associations between the MBTI and FIRO-B were explored in the original research:

- a. The clearer the preference for Extraversion, the greater the need for both Expressed and Wanted Inclusion;
- b. The clearer the preference for Feeling, the greater the need for both Expressed and Wanted Affection;
- c. The clearer the preference for Sensing, the greater the need for Wanted Control;
- d. The clearer the preference for Judging, the greater the need for Expressed Control.

In addition, each of the psychological types were examined across FIRO-B dimensions to determine if there were differences within groups. Psychological type was also examined individually to see which interpersonal needs were highest.

Analysis and Results

Table 1 shows the results from the correlational analyses.

Table 1: Correlation of MBTI Step 1 Continuous Scores with the FIRO-B

Scale	EI	SN	TF	JP
Expressed Inclusion	-.421**	.189*	.205**	.038
Wanted Inclusion	-.421**	.257**	.206**	.159**
Expressed Control	-.120*	.118*	-.253**	-.043
Wanted Control	.061	-.069	.205**	-.058
Expressed Affection	-.408**	.121*	.282**	.019
Wanted Affection	-.347**	.130**	.304**	.069

Notes: ** Sig at $p < .01$, * Sig at $p < .05$

Negative correlations are associated with E, S, T & J.

Positive correlations are associated with I, N, F & P.

Several results from this table are noteworthy:

- As predicted, there is a clear association between Extraversion and Expressed Inclusion and Wanted Inclusion. Extraversion also shows significant correlations with Expressed Affection, Wanted Affection and (to a lesser extent) Expressed Control. This corresponds with the findings of Schnell et al who, by way of explanation, described the MBTI Extraversion preference as incorporating paying attention to others (Expressed Inclusion) as well as other aspects of interpersonal relations which are usually less central, such as the desire to lead others (Expressed Control), to support and show concern (Expressed Affection), and to be loved (Wanted Affection).
- The correlation of Extraversion with both Expressed Inclusion and Expressed Affection brings into question the statistical independence of the latter two scales. Again, this mirrors the earlier study and may warrant further investigation.
- As predicted, both Affection scales show relationships to the Feeling preference. However, the Feeling preference also shows clear relationships

with both Inclusion scales and the Wanted Control scale. The Thinking preference, on the other hand, shows a clear link with Expressed Control.

- Rather surprisingly, the Sensing preference does not correlate significantly with any of the FIRO-B scales. It only shows a very weak (non-significant) correlation with Wanted Control. Intuition, on the other hand, shows clear relationships with Wanted Inclusion and Wanted Affection and, to a lesser extent, with all the other scales except Wanted Control
- Also surprising, is the fact that the Judging preference does not show a significant relationship with Expressed Control. This was also found in the earlier study, and when one looks at the links between Expressed Control and the other MBTI preferences it might help to clarify the meaning of Expressed Control as involving assertively structuring the **social** world.

To test the hypothesis proposed by Schnell and Hammer (1993) that the strength of the Overall Score (sum of all rows or columns on the FIRO-B) is representative of the clarity of preference within the E-I dimension, the correlation between the Overall Score and the E-I continuous score was calculated. The correlation was found to be significant at $r = -.496$ ($p < .001$, $n = 360$). This confirms the broadness of the Extraversion concept and the fact that the FIRO-B focuses on social behaviours.

Analyses were also conducted to look at how psychological type relates to the average Overall Score on the FIRO-B. Table 2 shows the average Overall Scores for each of the 16 types.

Table 2: Average FIRO-B Overall Scores for each psychological type

Type	Mean Overall Score (SD)	N
ENTP	30.11 (6.05)	9
ENFP	30.08 (6.22)	26
ESFJ	29.73 (7.45)	41
ENFJ	29.47 (5.48)	15
ESFP	28.00 (5.84)	16
INFJ	27.14 (6.20)	7
ESTP	26.95 (5.68)	22
ESTJ	26.93 (6.30)	42
ENTJ	26.56 (4.89)	18
INTJ	26.11 (4.34)	9
INFP	25.00 (5.57)	13
ISFJ	24.48 (5.09)	40
ISFP	24.14 (4.63)	7
ISTJ	22.15 (5.59)	60
INTP	21.69 (6.22)	13
ISTP	21.09 (7.00)	22

The table confirms that (with the exception of INFJs) Extraverted types tend to have greater interpersonal needs than Introverted types. The next split is in terms of

Thinking and Feeling. Amongst Extraverts, all Feeling types have greater interpersonal needs than do all Thinking types (with the exception of ENTPs). This is also the case amongst Introverts, with the exception of INTJs who have the second highest interpersonal needs amongst the Introverts.

Table 3 shows the highest FIRO-B scores for each MBTI type. Mean scores on the six FIRO-B dimensions were obtained for all psychological types, and the strongest interpersonal need dimension is listed first in each cell. A second dimension is listed if the difference between the highest two interpersonal needs was less than one.

Table 3: Highest FIRO-B Cell Scores for each Psychological Type

ISTJ Expressed Control Wanted Control	ISFJ Wanted Control Expressed Inclusion	INFJ Expressed Control Expressed Inclusion	INTJ Expressed Control Expressed Inclusion
ISTP Expressed Control	ISFP Wanted Control Expressed Inclusion* Expressed Control	INFP Wanted Affection Wanted Control	INTP Expressed Control Expressed Inclusion
ESTP Expressed Control Expressed Inclusion	ESFP Expressed Inclusion Wanted Affection	ENFP Expressed Inclusion Expressed Control	ENTP Expressed Control Expressed Inclusion
ESTJ Expressed Control Expressed Inclusion	ESFJ Expressed Inclusion Wanted Affection	ENFJ Expressed Inclusion Expressed Control	ENTJ Expressed Control Expressed Inclusion

** Expressed Inclusion and Expressed Control scores equally high in this case.*

For the majority of types, Expressed Inclusion (13 instances) and Expressed Control (12 instances) were amongst the top one or two FIRO-B scores. Four of the Introversion types included Wanted Control amongst their top FIRO-B scores, and three of the Feeling types included Wanted Affection.

This differs notably from the sample studied by Schnell et al (1994), where Wanted Affection was amongst the top two FIRO-B scores for all types. Indeed, the authors of that study expressed their surprise that Affection needs were so prominent, reinforcing attempts to help leaders show more appreciation and support for their staff. It is possible, however, that the specific nature of their sample group (participants in the CCL Leadership Development Program) may have had an impact on this result.

Tables 4 and 5 show psychological types with the highest and lowest mean scores for each FIRO-B cell. Within each cell in Table 4, types are listed in descending order, with the type with the highest need score listed first. Within each cell in Table 5, types are listed in ascending order, with the type with the lowest need score listed first.

Table 4: Ranking of Psychological Type with highest mean scores within FIRO-B dimensions

	Inclusion	Control	Affection
Expressed	ESFP ENFP	INTJ ENTJ	ESFJ ENFP ENTP
Wanted	ENFP ESFJ INFJ ENTJ	INFJ ISFJ ENFJ	ESFJ ENFP INFP ENTP ESFP

Table 5: Ranking of Psychological Type with lowest mean scores within FIRO-B dimensions

	Inclusion	Control	Affection
Expressed	ISTP ISTJ	INFP ISFJ ESFP	INTP ISTP
Wanted	ISTJ	INTP	ISTP INTP

It can be seen that MBTI types that combine Extraversion and Feeling tend to exhibit consistently high Inclusion and Affection needs (but not necessarily particularly high Control needs). Conversely, types than combine Introversion and Thinking tend to exhibit low needs in all the categories except Expressed Control.

The data is fairly supportive of type dynamics theory. For example, if Expressed Inclusion is primarily related to Extraverted Thinking, dominant Extraverted Feeling types (ENFJ & ESFJ) would be expected to score highest on this scale. At the same time, Introverted Thinking types (ISTP & INTP), for whom Extraverted Feeling is their inferior function, would be expected to score lowest. Although this isn't quite the case, the types do fall within the top and bottom scorers respectively. Taking another example; if Expressed Control is primarily related to Extraverted Thinking, we would expect those with dominant Extraverted Thinking (ENTJ & ESTJ) to score highest on the scale and those with dominant Introverted Feeling (ISFP & INFP) to score lowest. Again, this hypothesis is partially supported.

Conclusions

This study used UK data to replicate an earlier study by Schnell et al (1994), which looked at the empirical associations between the MBTI and FIRO-B amongst two samples of US managers.

The results were largely similar for UK and US managers, although there were some interesting differences.

1. The correlations between FIRO-B scales scores and MBTI scores were similar for both samples, reflecting the same overall patterns.
2. The highest one or two FIRO-B scores for each MBTI type were quite different for the UK sample than for the US sample. Amongst the US sample, Wanted Affection was consistently amongst the top scores whilst amongst the UK sample, Expressed Inclusion and Expressed Control were most frequently the top scores. The high Affection needs amongst the US sample was rather surprising, and the UK results were more along the lines of what might be expected.
3. There was a relatively high degree of consistency between the two samples in terms of the rankings of MBTI types with the highest and lowest scores on each FIRO-B dimension. For both samples, extraverted types tended to have the highest scores and introverted types the lowest scores. There was, however, slightly less support for type dynamics theory amongst the UK sample, although this might be largely due to the smaller sample sizes.

The results clearly showed that the FIRO-B is an instrument focused on interpersonal behaviour and not broad personality dimensions.