

# **The Myers-Briggs Type Indicator Meets the Kirton Adaption-Innovation Inventory: An Executive Summary of Sundell's 1999 Master's Project**

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## **Introduction/Overview**

The topic of Sundell's (1999) project pertains to the relationship between the *Kirton Adaption-Innovation Inventory* (KAI), the *Myers-Briggs Type Indicator* (MBTI), and the *Myers-Briggs Type Indicator-Creativity Index* (MBTI-CI), a derivative of the MBTI. The studies used in this project provide a better understanding of the creative person and show significant correlational relationships between these measures of creativity.

## **Pertinent Background/Context**

The KAI is based on Kirton's Adaption-Innovation theory, which asserts that style of creativity differs from level of creativity (Kirton, 1987). In regard to style, neither adaptive nor innovative should be considered better than the other. According to Kirton, "the KAI has three subscales, Sufficiency and Proliferation of Originality (SO), Efficiency (E), and Rule/Group Conformity(R). The SO subscale refers to the preference to generate a few or many original options. Adaptors prefer generating fewer options while innovators prefer to generate many. The efficiency subscale is about a preference for thoroughness and attention to detail."(as cited by Sundell, 1999, p. 5). The adaptor is concerned with efficiency and thoroughness, while the innovator tends not to be. The third subscale, Rule/Group Conformity is about preference to work within the rules or not. "Adaptors prefer working within the rules, while innovators do not" (as cited by Sundell, 1999, p. 4-5).

The MBTI is based on Jung's research of different recurring personality traits. The MBTI is a self-report measure that helps an individual determine his/her strengths and weaknesses based upon his/her preferences and personality type. The preferences are as follows: extraversion-introversion, intuition sensing, thinking-feeling, and judgment-perception. The combinations of these four dimensions make up the sixteen combinations of personality types (Myers and McCaulley, 1985).

### **Procedures and Methods**

There are not many studies that look at the relationship between the MBTI and the KAI. This is an unfortunate oversight as the results of such studies could be relevant to the development of future programs relating to creativity.

Sundell's project presented an overview and critique of eight studies, a summary of the relationships between the studies, and the importance of the findings when viewed together. Sundell's research examined the relationship between the MBTI and the KAI. The findings also included the relationship between the KAI and the MBTI-CI, a derivative of the MBTI.

### **Results and Outcomes**

#### Carne & Kirton, 1982

Kirton and Carne did the first of these studies in 1982. They looked at 109 students of management and hypothesized about how their scores on both the MBTI and KAI would correlate. The results showed a significant correlation between dimensions of Intuition and Perception as indicators of innovative style. Additionally, Carne and Kirton examined a combination score of the Sensing-Intuition; Judgment-Perception dimensions and combined them into one dimension. The results showed a strong correlation of .13, which could indicate a need for future studies pertaining to the combination of scores on the KAI and MBTI-CI to

predict creativity. A correlation of .44 was found between the subscales of the KAI and the intuition, perception dimensions. There was also found to be a correlation between the KAI and extraversion when individuals of the study, who did not speak English as a first language were compensated for.

S.Gryskiewicz, 1982

The next study Sundell reports is Gryskiewicz (1982). He wanted to provide construct validation for the KAI, did the next study. Gryskiewicz compared and correlated the KAI to eight other measures. The measures included the following; *Barron-Welsch Art Scale, Revised Art Scale, Shipley Total, Hidden Figures, TCI Control-Impulse, Wesley Total, California Personality Inventory, MBTI, and Introversion-Extraversion Scale Strong-Campbell Interest Inventory*. The author states “Gryskiewicz found correlations between the MBTI and the KAI that support Carne and Kirton’s findings” (Sundell, 1999, p 27). Gryskiewicz had a total sample of 438 managers who participated in Creative Leadership Courses. He divided this sample into four smaller samples based on the year the individual attended the leadership course. All four samples yielded significant correlations between the KAI, the Sensing-Intuition dimension, and the Perception-Perception dimension. Sundell found that three of the samples indicated a significant relationship between the KAI and the Extraversion-Introversion dimension of the MBTI. (Gryskiewicz, 1982)

Tefft, 1990

In 1990, Tefft explored the relationship between the MBTI and the KAI. Two other measures that she included in her study were the *Torrance Tests of Creative Thinking (TTCT)*, Verbal Form B, and the (MBTI-CI). In her correlational analysis, 615 subjects who had taken

the MBTI and KAI were included, in addition to a smaller sample of 145 undergraduate students. The results of this study supported Carne and Kirton's findings with significant correlations between the KAI, Sensing-Intuition, and the Perception-Perception dimensions. There appeared to be a weaker relationship between the KAI and the other two dimensions, Extraversion-Introversion, Thinking-Feeling. Sundell noted, "This is the first study to find a correlation with the Thinking-Feeling dimension and can be explained by the larger sample" (Sundell, 1999, p. 29). Additionally, Tefft found a strong correlation with the same sample of 615 students and professionals in the Sensing-Intuition, Perception-Perception dimensions. Another finding was the relationship between the subscales of the KAI. These results differed from those of Carne and Kirton. Also, Tefft examined the relationship between the KAI and the MBTI-CI, finding significant relationships in both male and female totals. Sundell pointed out that the reason for the significance was that Gough indicated that the Creativity Index was not effective in predicting creativity in females. Lastly, Tefft conducted a factor analysis to explore the relationship between the KAI and the MBTI. The TTCT Verbal Form B was used as a measure of creative level, while the KAI and the MBTI were judged as creative style measures. Tefft noted that "the first factor is clearly dominated by the TTCT, the second by the KAI, and the MBTI's Sensing-Intuition, Judgment-Perception. The third factor with its small eigenvalue is most probably a residual." (Tefft, 1990)

#### Jacobson, 1993

Jacobson (1993) examined the relationship between the KAI and the MBTI. Using a sample of 54 US managers in the service sector, she predicted that that she would confirm the relationships discovered by Carne and Kirton. Due to the fact that her managers worked more with interfacing than process, she hypothesized that her sample would be more innovative than

Carne and Kirton's sample. Jacobson's hypothesis is confirmed by a higher mean than the sample used by Carne and Kirton (1982).

Taylor, 1993

Taylor's (1993) study included 12,115 participants from leadership programs at the Center for Creative Leadership and looked at the relationship between the KAI and the MBTI-CI. "Taylor found significant correlational relationships between the KAI and the MBTI-CI. He also found significant relationships between the MBTI-CI and all three of the KAI sub-scales." (Sundell, 1999, p.36).

Fleenor & Taylor, 1994

Later, Taylor used the same sample from his 1993 study in another study with Fleenor. Fleenor and Taylor (1994) looked at the relationship between the MBTI-CI, the KAI, and the *California Psychological Inventory* (CPI). They neglected to mention any information relating to the CPI, however they did find significant correlation of .62 at  $p < .01$  between the KAI and the MBTI-CI.

van Rooyen, 1994

In that same year in South Africa, van Rooyen (1994) conducted a study on a small sample of 87 female managers. van Rooyen did not conduct a correlational analysis, but reported the data in distribution tables. The results indicated types among managers and adaptor or innovator tendencies.

N. Gryskiewicz & Tullar, 1995

In 1995, Gryskiewicz and Tullar examined the relationship between the MBTI and KAI. They used a sample of 49 participants in a training class. Sundell reported that there was significant correlational relationship between the KAI and the S-N, J-P dimensions of the MBTI.

### Findings from the Sundell study

The results of Sundell's examination of eight studies investigating the relationship between the KAI and the MBTI indicated that there were only five studies that investigated the relationship between the KAI and the MBTI. Two studies examined the relationship between the KAI and the MBTI-CI. One study investigated both. "All eight studies found significant correlational relationships between the two measures" (Sundell, 1999 p. 43).

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