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A STUDY OF RELATIONSHIP BETWEEN INTUITION AND CREATIVITY

Abstract

Main problem. At the moment, in post-Jungian personality typologies (socionics and MBTI) there are a lot of conflicting hypotheses regarding the intuition / sensory scale.

Purpose. Purpose of this article was to testing the content of the Intuition/Sensing scale of Jungian personality types and, namely, the relationship between the Intuition pole and Imagination and Foresight.

Methods. For this purpose, we have performed a correlation analysis of typological scales and the scales of the creative thinking model by Williams and the thinking styles model by Epstein.

Results and their significance. The results of the analysis demonstrate a statistically significant relationship between the Intuition pole and Imagination. Consequently, it manifests itself in the fact that Intuitive people are more creative than Sensing types people. The Intuition/Sensing scale did not show any correlation with thinking styles by Epstein. According to Epstein, Intuitive thinking style correlates with the Ethics pole, and Rational thinking style — with the Logic pole. These conclusions are also supported by the relationship between Intuitive thinking style by Epstein and high levels of Emotional Intelligence as measured with the RMET questionnaire. Another important result of this study is the examination of relationship between level of Creativity and Intuitive or Rational thinking styles by Epstein. The results of analysis have shown that high levels of Creativity correlate with high values of both Intuitive and Rational thinking. This suggests that people with a highly developed thinking ability, regardless of its style, are more creative.

Keywords: *socionics, creativity, intuition, rationality, emotional intelligence.*

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ИССЛЕДОВАНИЕ ВЗАИМОСВЯЗИ МЕЖДУ ИНТУИЦИЕЙ И КРЕАТИВНОСТЬЮ

Аннотация

Идея и цель работы. На данный момент в постюнгианских типологиях личности (соционике и MBTI) существует множество противоречивых гипотез относительно шкалы «интуиция / сенсорика». Целью данной статьи было тестирование содержания шкалы «интуиция / сенсорика» юнгианских типов личности, а именно взаимосвязь между полюсом интуиция и воображением и предвидением.

Методы. С этой целью мы провели корреляционный анализ типологических шкал и шкал модели креативного мышления Уильямса и модели стилей мышления Эпштейна, и опросник эмоционального интеллекта RMET.

Результаты и их значение. Результаты анализа демонстрируют статистически значимую связь между полюсом интуиция и воображением. Следовательно, это проявляется в том, что

интуитивные люди более креативны, чем люди сенсорного типа. Шкала «интуиция / сенсорика» не выявила никакой корреляции со стилями мышления Эпштейна. По Эпштейну, Интуитивный стиль мышления соотносится с полюсом Этики, а стиль рационального мышления — с полюсом Логики. Эти выводы также подтверждаются взаимосвязью между интуитивным стилем мышления Эпштейна и высоким уровнем эмоционального интеллекта, измеренного с помощью опросника RMET. Еще одним важным результатом этого исследования является изучение взаимосвязи между уровнем креативности и интуитивным или рациональным стилями мышления Эпштейна. Результаты анализа показали, что высокий уровень Креативности коррелирует с высокими значениями как Интуитивного, так и Рационального мышления. Это говорит о том, что люди с высокоразвитыми способностями мышления, независимо от его стиля, более креативны.

***Ключевые слова**: соционика, креативность, интуиция, рациональность, эмоциональный интеллект.*

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ИНТУИЦИЯ МЕН ШЫҒАРМАШЫЛЫҚТЫҢ БАЙЛАНЫСЫН ЗЕРТТЕУ

Аңдатпа

Идея мен мақсат. Қазіргі уақытта Юнгиядан кейінгі тұлға типологияларында (соционика және МБТИ) интуицияға / сенсорлық шкалаға қатысты көптеген қарама-қайшы гипотезалар бар. Бұл мақаланың мақсаты Юнгиядан кейінгі типологиялардың түйсігі/сезім шкаласының мазмұнын, атап айтқанда Түйсік пен Елестету және Болжау полюсі арасындағы қатынасты тексеру болды.

Әдістері. Осы мақсатта біз Уильямстың креативті ойлау моделінің, Эпштейннің ойлау стильдерінің моделінің және RMET эмоционалдық интеллект сауалнамасының типологиялық шкалалары мен шкалаларына корреляциялық талдау жүргіздік.

Нәтижелер және олардың маңызы. Талдау нәтижелері түйсік пен елестету полюсі арасындағы статистикалық маңызды байланысты көрсетеді. Демек, бұл интуитивті адамдардың сенсорлық адамдарға қарағанда креативті екенін көрсетеді. Түйсік/сезім шкаласы Эпштейннің ойлау стилімен ешқандай байланысын көрсетпеді. Эпштейннің пікірінше, ойлаудың интуитивтік стилі этика полюсіне, ал рационалды ойлау стилі логика полюсіне сәйкес келеді. Бұл тұжырымдар Эпштейннің интуитивті ойлау стилі мен RMET өлшенген эмоционалды интеллекттің жоғары деңгейлері арасындағы байланыспен де расталады. Бұл зерттеудің тағы бір маңызды нәтижесі шығармашылық деңгейі мен Эпштейннің интуитивті немесе ұтымды ойлау стильдері арасындағы байланысты зерттеу болып табылады. Талдау нәтижелері Шығармашылықтың жоғары деңгейі интуитивтік және ұтымды ойлаудың жоғары құндылықтарымен сәйкес келетінін көрсетті. Бұл ойлау қабілеті жоғары дамыған адамдардың стиліне қарамастан, шығармашылықпен айналысатынын көрсетеді.

***Түйін сөздер:** әлеуметтану, креативтілік, интуиция, ұтымдылық, эмоционалды интеллект.*

INTRODUCTION

Personality typologies based on the ideas of Carl Jung are widely used for various practical tasks: career guidance (Fan, 2023), recruitment (Strutinsky & et al., 2021; Bhuyan & Barua, 2022), establishing harmonious relationships with colleagues (Kim & Park, 2010) and team building (Montequin et al., 2013). The MBTI typology comprising 4 scales: Extraversion/Introversion,

Sensing/Intuition, Thinking/Feeling and Judgment/Perception is prevalent in the USA, Canada and Western European countries. While in the post-Soviet countries, the socionics, which is basically identical to MBTI, has become more widely spread.

The major advantage of socionics over MBTI is the underlying mathematical model, i.e., the algebraic group formed by the socionic scales. It allows us to divide all people into 16 personality types on the basis of the 4 scales similar to MBTI and the additional 11 scales. All 15 scales are orthogonal to each other. The relationship between the three scales is illustrated in Figure 1 and discussed in more detail in the article (Kovalenko & Zvonareva, 2023).

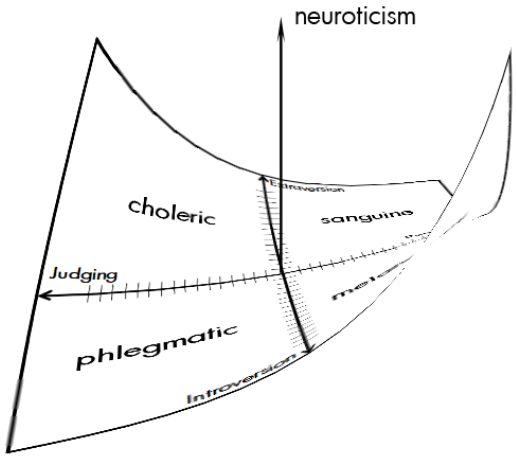

Figure 1 – 3D visualization of the three scales relationship.

However, some authors consider socionics as a pseudoscience (Lytov, 2003). In many ways, such criticism is not unfounded, due to the fact that most socionics researchers rely on the works of Aushra Augustinavichyute (Augustinavichyute, 1998) and their own proprietary methodology. A significant drawback of socionics is the absence of a research results database that could support or refute socionic hypotheses.

Back in 2020, our team started searching for correlations of socionic personality types and traits with various psychological models. At first, our work was based on existing socionic methodology and then by applying iteration method to the research findings we have upgraded the socionic methods for determination of personality traits in order to make them more scientific.

The key result of several studies conducted is the understanding that socionic personality types are included in the existing field of psychological scales. The scales of socionic traits were compiled by the creator of socionics, Aushra Augustinavichyute (1998), and her followers in a thought experiment and expressed in plain non-scientific language. This has led to inaccurate wording and definitions and a huge number of all kinds of speculative interpretations from various socionic researchers. The first results of the research have shown that the socionic traits, which serve as a basis for socionic personality types, correlate with the already existing psychological scales (Kovalenko & Zvonareva, 2021). When considering the definitions and descriptions of socionic scales and the correlating psychological ones, one can observe that the only difference is in language stylistics: common everyday language versus scientific. Consequently, increasing validity and reliability of methods used to determine socionic traits and clarification of relevant definitions on the basis of research findings lead to shifting the socionic scales towards the corresponding psychological ones, which can be observed as an increase in the scales' correlation coefficients in further studies.

This process is still continuing, and in this article, we would like to consider the Intuition/Sensing socionic trait. On the one hand, this scale has shown high correlation with existing career guidance models (Strutinsky & et al., 2021), and on the other hand, almost zero correlation with the mindset model (Kanunnikov, 2022) and the Big Five model (Kovalenko & Zvonareva, 2021).

It should be noted that descriptions of this trait provided by various authors demonstrate many contradictions. The creator of socionics, Aushra Augustinavichyute, describes the Intuition pole in her paper (1998) as follows, “Intuitives are characterized by a flight of fantasy, a flair for the new, unusual. They can predict what is promising, warn against troubles, they know how to plan things properly, evaluate and develop abilities of people. Intuitives are good at seeing the big picture, on a global scale, while Sensing people are more attentive to particulars and details.”

T. N. Prokofieva (2016) writes, “Intuition collects information in time, considers process development from the past to the future and, therefore, the complete global picture predicts events that have not yet happened. For example, possibility, probability and time of occurrence of any changes. Intuitives are more interested in relationships, meaning and consequences of the facts, than in the facts themselves. Here, the "sixth sense" (intuition) plays a greater role than the other five. Intuitives easily read between the lines, look for a hidden meaning in everything, fix their attention on the background and conclusions. They value imagination and trust their premonitions and insights. Intuitives are future-oriented, they tend to see events in development and, as a rule, prefer to change the order of things than to maintain the status quo.”

Aushra Augustinavichyute (1998) describes the Sensing pole as follows, “Sensing types live through their sensations, in every sense of the word: they are able to perceive nature and art, enjoy everything they see, hear or feel. They feel their physical “Self” and its needs very precisely and have an explicit rhythm of life. Sensing people live for the moment. Everything that will happen tomorrow is a little unexpected for them. Due to undeveloped abstract thinking, they do not have foresight and rely only on their own strength and will ..."

T. N. Prokofieva (2016) writes, “Sensing collects information in space, therefore, the global picture describes invisible qualities of objects here and now. For example, well-being, reliability, strength and endurance. Sensing people trust the information collected through their five senses, fix their attention on things that can be seen, tried or measured. They are present-oriented and more interested in what is happening at the moment.”

METHODS

In order to test the hypothesis of Premonition typical of Intuitives, we considered REI model by S. Epstein, describing Rational and Intuitive thinking styles (Epstein et al., 1996; Epstein, 2003). The Epstein's model consists of 4 subscales: Experiential Ability, Experiential Engagement, Rational Ability and Rational Engagement. These subscales are summarized into two overall scales: Experientiality and Rationality. In this research, the Epstein’s questionnaire adapted by T.V. Kornilova (Kornilova & Razvaliaeva, 2017) was used.

In order to test the hypothesis about Fantasy and Imagination typical of Intuitives, we considered the Personal Creativity model by Williams (Williams, 1980) adapted by E. E. Tunik (Tunik, 2003). In this model, Personal Creativity comprises 4 factors: Curiosity, Imagination, Complexity and Risk-taking.

These questionnaires along with the questionnaire for determination of the socionic type developed by us (Kovalenko & Zvonareva, 2023) were included into the list of 26 tests that were offered to volunteers in our research. The remaining questionnaires were aimed to test other socionic hypotheses that will be discussed in further articles. The personality trait questionnaire (PTQ) to determine the socionic personality type consists of 163 questions grouped into 7 scales (Table 1).

Table 1 – Psychometric data of the PTQ (Kovalenko & Zvonareva, 2023)

Scales	Number of questions	Cronbach Alpha
Extraversion / Introversion	30	0.874
Statics / Dynamics	25	0.787
Irrationality / Rationality	22	0.767
Logic / Ethics	34	0.884

Intuition / Sensing	10	0.678
Recklessness / Cautiousness	19	0.767
Judiciousness / Decisiveness	23	0.808

A total of 108 Russian-speaking volunteers took part in the research. The male to female ratio of 26.8% to 73.2% basically corresponds to the gender ratio of people taking an interest in psychology, as observed in other psychological studies. The average age of volunteers is 31.2 years, with the youngest participant of 18 years and the oldest one of 59 years.

RESULTS AND DISCUSSION

Table 2 presents results of the study on correlation of socionic traits with the creativity model.

Table 2 – Correlations between socionic traits and creativity scales

		Curiosity	Imagination	Complexity	Risk-taking	Creativity
Extraversion	Corr.	**0.244***	0.176	0.076	0.071	0.182
	Value	0.011	0.068	0.432	0.466	0.059
Statics	Corr.	0.085	-0.124	**0.296****	0.084	0.101
	Value	0.381	0.2	0.002	0.389	0.301
Irrationality	Corr.	0.057	0.188	0.153	**0.227***	**0.195***
	Value	0.557	0.051	0.113	0.018	0.043
Logic	Corr.	-0.126	-0.12	-0.031	-0.137	-0.13
	Value	0.193	0.217	0.746	0.159	0.18
Intuition	Corr.	**0.319****	**0.354****	0.132	0.091	**0.290****
	Value	0.001	0	0.172	0.35	0.002
Recklessness	Corr.	**0.326****	**0.201***	**0.343****	**0.269****	**0.356****
	Value	0.001	0.037	0	0.005	0
Judiciousness	Corr.	0.066	0.14	0.073	0.14	0.131
	Value	0.501	0.148	0.453	0.15	0.175

The Curiosity scale shows correlations with the socionic poles of Intuition, Extraversion and Recklessness. This complies with the results of the BIG5 model, where these traits correlated with factors 1.4 Experience Seeking – Impression Avoidance and 5.2 Curiosity – Realism (Kovalenko & Zvonareva, 2021).

The Imagination scale shows correlations with Intuition and Recklessness. This is congruent with the results obtained by I. N. Kanunnikov (2022), where the Intuition pole along with the Ethics pole correlate with visual-figurative thinking, which requires a developed imagination. The Recklessness pole describes the relaxed mental state and reduced anxiety (Kovalenko & Zvonareva, 2021). A person with low trait anxiety is probably more likely to be creative and imaginative, because people with high trait anxiety would rather use their imagination not for creative purposes, but to develop future scenarios in order to reduce their level of anxiety.

The Complexity scale describes the choice of more difficult tasks, the desire to set the disordered in order, and the focus on identification of a number of alternatives. The correlation of the Complexity scale with Recklessness is explained by the fact that Reckless types, due to reduced trait anxiety, are more inclined to consider various options and seek new experiences (Kovalenko & Zvonareva, 2021). While correlation with the Statics pole is explained by the Static people stable mood and their desire to systematize and structure, which is expressed as a tendency to analytical thinking (Kovalenko & Zvonareva, 2022).

The Risk-taking scale predictably shows correlations with the Recklessness pole, providing a stronger inclination to spontaneous behaviour due to low anxiety.

The summative Creativity scale correlates with Intuition and Recklessness poles, confirming the socionic hypothesis about Creativity of Intuitives. While the contribution of the Intuition pole to

Creativity is accounted for higher values of Curiosity and Imagination. Also, a great contribution to Creativity is made by the Recklessness pole, because spontaneity and ease are important for Creativity, and the former are inherent in Reckless types due to low anxiety.

Table 3 demonstrates the results of a study on correlation of socionic traits and the model by S.Epstein.

Table 3 – Correlations between socionic traits and the model by S. Epstein.

		Experiential Ability	Experiential Engagement	Rational Ability	Rational Engagement	TOTAL Experientiality	TOTAL Rationality
Extraversion	Corr.	**0.217***	0.105	0.116	0.063	0.171	0.099
	Value	0.029	0.295	0.249	0.533	0.086	0.326
Statics	Corr.	0.058	-0.146	**0.315****	**0.351****	-0.058	**0.384****
	Value	0.565	0.144	0.001	0	0.565	0
Irrationality	Corr.	0.186	**0.267****	**-0.240***	-0.054	**0.251***	-0.156
	Value	0.062	0.007	0.015	0.59	0.011	0.12
Logic	Corr.	**-0.358****	**-0.433****	**0.601****	**0.242***	**-0.436****	**0.457****
	Value	0	0	0	0.015	0	0
Intuition	Corr.	0.116	0.063	0.186	**0.320****	0.095	**0.299****
	Value	0.247	0.532	0.063	0.001	0.344	0.002
Recklessness	Corr.	0.137	0.032	0.121	**0.233***	0.088	**0.211***
	Value	0.173	0.751	0.227	0.019	0.381	0.034
Judiciousness	Corr.	0.122	**0.209***	-0.045	**0.243***	0.185	0.134
	Value	0.223	0.036	0.652	0.014	0.063	0.182

Here we can observe distinct correlations between Experientiality and the socionic Ethics pole, and between Rationality and the Logic pole, which can be traced through both the primary and secondary scales. This is consistent with the works of S. Epstein, where he writes about Intuition as follows, “The experiential system adapts to reality by empirically learning from experience in a manner that is automatic, preconscious, rapid, effortless, holistic, concrete, associative, primarily nonverbal, and minimally demanding of cognitive resources” (Epstein, 1996). Also, Kustubayeva et al., notes that Intuition encodes information as memories of specific events, particularly those that were emotionally arousing, and is cognitive and intimately associated with emotions (Kustubayeva et al., 2012).

Most interestingly, Experientiality by Epstein was positively correlated with results of the RMET Emotional Intelligence Questionnaire (Baron-Cohen, 2001), which was included into the research scope for other purposes. The RMET questionnaire determines emotional intelligence level on the basis of the respondent's ability to interpret a person's emotions by analysing the expression in their eyes. The RMET questionnaire offers 36 images of people's eyes and asks the respondent to recognize the emotion experienced by the person in the picture.

Correlations of socionic traits with the ability to recognize emotions through the eyes comply with the results of our previous research: the Empathy Quotient and Emotional Intelligence level based on the EmIn model.

The ability to interpret human emotions through their eyes is positively correlated with Experientiality by Epstein and negatively correlated with Rationality. This confirms Epstein's conclusions about the relationship between Experientiality and Emotional Intelligence level (Epstein, 1996).

The RMET scale did not demonstrate any statistically significant correlations with Creativity scales.

Table 4 – Correlations of RMET questionnaire with socionic traits, Personal Creativity model by Tunik and REI model by Epstein

Socionic traits		**RMET**
Extraversion	Corr.	**0.217***
	Value	0.029
Statics	Corr.	0.058
	Value	0.565
Irrationality	Corr.	0.186
	Value	0.062
Logic	Corr.	**-0.358****
	Value	0
Intuition	Corr.	0.116
	Value	0.247
Recklessness	Corr.	0.137
	Value	0.173
Judiciousness	Corr.	0.122
	Value	0.223
REI scales by Epstein		
Experiential Ability	Corr.	**0.254****
	Value	0.008
Experiential Engagement	Corr.	**0.280****
	Value	0.003
Rational Ability	Corr.	**-0.225***
	Value	0.019
Rational Engagement	Corr.	-0.138
	Value	0.155
TOTAL Experientiality	Corr.	**0.294****
	Value	0.002
TOTAL Rationality	Corr.	**-0.201***
	Value	0.037
Personal creativity		
Curiosity	Corr.	-0.007
	Value	0.946
Imagination	Corr.	0.076
	Value	0.431
Complexity	Corr.	0.076
	Value	0.434
Risk-taking	Corr.	0.129
	Value	0.183
Creativity	Corr.	0.085
	Value	0.384

Analysing the relationships between socionic traits and the REI model by Epstein, a positive correlation of Rational thinking with the Statics pole should be mentioned. The Statics pole is a balanced mental state, expressed in emotional self-control and an inclination to analytical thinking.

On the contrary, the Intuition pole shows correlation with the Rational Engagement scale. This is consistent with the results of the study on the relationship between socionics and the career guidance model by Klimov, where the Intuition pole correlates with the "Man – Sign system" professions (Strutinsky & et al., 2021).

Also, the Rational Engagement scale correlates with 5 out of 7 scales of the PTQ questionnaire. The PTQ questionnaire scales are mutually independent of each other (Kovalenko & Zvonareva, 2023). Based on these results, it can be concluded that the ENTP type is the most inclined to use Rational thinking, despite the fact that it is one of the Irrational types. It is important not to confuse the socionic

Rationality and the concept of Rational thinking by Epstein, expressed as follows, “the rational system is an inferential reasoning system that operates according to an individual’s understanding of the rules of reasoning including the importance and evaluation of evidence. The rational system operates in a manner that is conscious, primarily verbal, analytic, effortful, relatively slow, affect-free, and demanding of cognitive resources.”

Furthermore, in our opinion, it would be of interest to consider the intercorrelations between the Personal Creativity models and REI by Epstein, presented in Table 5.

Table 5 – Correlations between REI by Epstein and Personal Creativity model

		Curiosity	Imagination	Complexity	Risk-taking	Creativity
Experiential Ability	Corr.	**0.208***	**0.315****	**0.321****	**0.339****	**0.371****
	Value	0.031	0.001	0.001	0	0
Experiential Engagement	Corr.	-0.01	**0.213***	**0.199***	0.178	0.183
	Value	0.921	0.027	0.039	0.065	0.058
Rational Ability	Corr.	0.101	0.022	0.088	-0.048	0.054
	Value	0.297	0.817	0.367	0.62	0.582
Rational Engagement	Corr.	**0.451****	**0.305****	**0.482****	**0.270****	**0.475****
	Value	0	0.001	0	0.005	0
TOTAL Experientiality	Corr.	0.098	**0.283****	**0.278****	**0.276****	**0.294****
	Value	0.314	0.003	0.004	0.004	0.002
TOTAL Rationality	Corr.	**0.342****	**0.208***	**0.356****	0.15	**0.334****
	Value	0	0.031	0	0.121	0

The results show a positive correlation between Creativity scales and both Rational and Experiential indicators. This suggests that Creativity is characteristic of people who have well developed thinking, whether Rational or Intuitive.

CONCLUSIONS

1. The socionic Intuition pole is linked to Curiosity, Imagination, and as a result, expressed through Creativity.

2. The socionic Intuition pole is not associated with the concept of Intuition, which describes the prediction of events as a kind of "sixth sense", insight and premonition. These processes are connected with Emotional Intelligence and socionic Ethics pole.

3. Expressed Creativity is inherent in people with developed thinking ability, both Intuitive and Rational. This suggests that Creativity correlates with the general level of thinking ability.

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List of used literature

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