

POSITIONING AND PERSONALITY TRAITS IN THE FIVE FACTOR MODEL

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ABSTRACT. The assumption that I-positions are fairly independent provokes the question about the extent of this independence. I try to investigate whether changing the activated I-position influences the personality, because if it is so, Bakhtin's (1984) notion of "voice as a speaking personality" is less metaphorical than has been thought. Changing I-positions is a process of positioning. In this research I do not concentrate on interactive mutual positioning, but on a virtual kind of this phenomenon to see how well can one position himself/herself using only imagination and writing. By choosing different methods of experimental positioning it is possible to observe changes in the personality traits. This shows the importance and effectiveness of positioning as a social influence tool.

Keywords: discursive mind, dialogical self, positioning, I-position, personality, Big Five, Five Factor model, personality traits

Personality as a variable psychological disposition?

Dialogical Self Theory (Hermans, 1992) indicates that, if during contact with significant others and with discourse which is socially shared with these others the mind self-organizes as a structure of fairly independent I-positions, then it can be assumed that different characteristics of these I-positions are dependent upon the relational context in which these I-positions were formed. Therefore, the activation of a specific relational context (and by this means evoking a specific I-position) should be manifested by a change in cognitive-affective characteristics and behavior. As in Bakhtin's (1984) polyphonic novel, the I-positions in the Dialogical Self are sort of characters of the novel-different voices, each of them being able to tell its own narration (Hermans, 1999). This was initially successfully verified in the research of Stemplewska-Żakowicz, Walecka and Gabińska (2006), in which formal and content related differences in self-narrations were discovered when different relational contexts were activated. The narration of each I-position, its self-descriptions and attitude towards reality, moral guidelines were subjective for the I-position, shared with a person in relation to whom this I-position had been developed and rooted into the discourse in which these two

AUTHORS' NOTE. This research was conducted as part of a master thesis supervised by Katarzyna Stemplewska-Żakowicz. Please address correspondence regarding this article to Bartosz Szymczyk, Institute of Psychology, Helena Chodkowska University of Management and Law, Al. Jerozolimskie 200, 02-486 Warsaw, Poland; Email: bartosz.szymczyk@chodkowska.eu

figures were set. This is an analogy to Bakhtin's notion of "voice" understood as a separate "speaking personality" (Bakhtin, 1984), and at the same time an explicit inspiration for this research.

Despite Hermans (2001a) proposal for a new, dialogical definition of personality as a pattern of a three-dimensional relation between I-positions, it still can be assumed that if activation of a certain I-position causes that the subject starts to process information differently, gains access to specific information about the world and the self, perceives the reality and self from a specific point of view, then by being in this I-position he can be characterized by a specific personality description, understood in a more classical way than depicted by Hermans. This way of thinking about I-positions is similar to the observations put forward by sub-personality researchers, who point out the existence of several "small personalities" (Suszek, 2005; Trzebińska, Mi, & Rutczyńska, 2003).

Contemporarily, one of the most common ways of thinking about personality is defining it using categories of traits. These traits form 5 classical factors: Neuroticism, Extraversion, Openness to Experience, Extraversion, Agreeableness and Conscientiousness. The Big Five model of personality, put forward by Costa and McCrae (1992, in Zawadzki et al, 1998), and inspired by classical works of Allport and Cattell, was created mainly atheoretically on the basis of psychometric analysis. It used language studies and the basic lexical hypothesis that the most socially important individual differences are encoded as separate words in all main languages (Goldberg, 1990). It is also based on practical analysis of the functional importance of the Big Five model. The model assumes that there are general, stable and trans-cultural dimensions of traits by which we can fully characterize the personality. This model also has a psychometrically trustworthy measuring tool, created by the model's authors, with which the indicated personality factors can be diagnosed-the NEO-FFI, which has its Polish adaptation (Zawadzki et al., 1998).

There is research evidence showing the stability of the 5 factors of personality, both in a longer time perspective and between different situations (which is important for the subject of this research) (Block, 1981; Ware & John, 1995, cited in Pervin & John, 2001). The stability of personality in time – as defined by the five-factor model – is attributed to the genetic factor present in the model and to a social tendency to manage the environment so that it helps developing natural personality traits.

The research perspective on cross-situational stability of personality is less conclusive. There is a strong tendency, started by works of Walter Mischel (1969) to concentrate on stability among similar situations than to even consider the probability of a stable personality in different situations. After closely examining individual behavior, Mischel discovered that it was highly dependent upon a variety of similar situations (for example in school, at work) rather than generally stable. He found it was inconsistent

across diverse situational cues with no similarity in context (see Pervin & John, 2001). This kind of stability, not across diverse situations but in a specific kind of situations or contexts, could easily be justified in the theory of the Dialogical Self. It would suggest that specific situations activate specific I-positions developed in specific discourse.

The experiment described here is an attempt to get closer to finding the answer to the general question: can different I-positions be perceived as different personalities defined by a specific pattern of the Big Five dimensions? More precisely, it is an attempt to verify whether changing the active I-position by manipulating the relational context can be reflected by a change in the NEO-FFI Personality Inventory results.

Positioning - Towards the method

I as a subject, in Dialogical Self Theory, can move between different latent I-positions and give them voice. This displacement between I-Positions is caused by interaction between dialogue partners who can build new or bring forth some existing I-positions (Davies & Harre, 2002; Zalewski, 2004). This can be either intentional when they refer to shared situational scripts, for example a salesperson can position the client as a laymen and him/herself as an expert. This pair of I-positions was used in an experiment conducted by Stemplewska-Żakowicz, Zalewski and Suszek (2005a), of which results initially confirm the positioning phenomenon in the experimental reality and point out that this kind of intentional positioning is in fact a social influence technique. In this experiment the information (or its lack) about the partner's and one self's role in an interaction was manipulated. This resulted in participants taking up certain I-positions and acting accordingly. What is interesting is that the perception of one's own role in conversation was found to be less important than the knowledge of the partner of the interaction and his/her belief about who he/she is speaking with. Even if the participant did not know that his partner was informed he was to talk as an expert, he still performed like one and, for example, gave more advice. Thus, he unconsciously confirmed his partner's perspective, which is in line with Chen and Bargh's (1997) findings on unconscious behavioral confirmation of stereotypes. Positioning can therefore be non intentional; theoretically a similar pitch of voice can activate an I-position created in relation with an utterly different but once important person. As pointed by Baldwin (1997), relational schemas can be activated even by minor situational conditions.

Another possibility is self-positioning by the virtual presence of others in one's mind. In research on positioning (Stemplewska-Żakowicz, Walecka, Gabińska, Suszek & Zalewski, 2005b; Gebbler, 2006; Walecka, 2006) a shortened version of Baldwin and Holmes' (1987) research procedure was experimentally adopted and used besides from the direct addressing of statement to an actual person important for the participant. Both procedures were also used in this experiment and their detailed description can be found below. A theoretical and methodological question about the influence of these two

methods of experimental positioning on differences in personality dimension is one of the fields of investigation in the experiment reported here.

Aim of the research

A general idea was to find out whether each I-position has its own pattern of personality traits, which can be demonstrated every time this I-position is evoked. Considering the theoretical assumptions of Dialogical Self Theory, and the empirical conclusions from the described studies, it can be presumed that activating the same I-position within the same person twice will result in a very similar pattern of Personality manifested by close scores in the NEO-FFI Personality Inventory in each of the measurements. Hence, when the two measurements are primed with activating two different I-positions, the differences in their “personality” should be reflected in different scores for the Big 5 personality dimensions in each of the measurements. Such an idea for a research implied using a repeated measures procedure. I also wanted to look into the efficiency of experimental positioning methods and its influence on the personality questionnaire results.

The research field was described by two theoretical hypotheses:

- There are intra individual differences in personality and they depend on the I-position activated
- The intra individual differences manifest in a variety of ways depending on the positioning method.

Method

Participants

A total of 153 male and female students of humanistic and linguistic faculties took part in the research. 109 participants were the subjects of analysis: 70 women and 39 men. Their ages varied between 19 and 33 ($M = 22$; $SD = 2.37$). Other participants did not fill in the questionnaire or took part only in one of the measurements.

The experiment was conducted in small groups and took place at the end of the classes (lectures and seminars). Each measurement took approximately 20 minutes. The students were informed by the researcher about the experiment a week in advance, however no detailed information was given, apart from the anonymous and voluntary character of the experiment. Each group had two repeated measurements separated by a week.

Variables

The research was planned as a 2 x 2 experiment with repeated measurement. It investigated the following variables:

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- First independent variable: the I-position (the same I-position activated twice vs. two different I-positions activated in the consecutive measurements; the I-as-a-Mother's-child and I-as-a-Father's-child positions were used).
- Second independent variable: the Positioning (the same method used twice vs. two different methods in each measurement; Imaginative positioning and Positioning with Addressing methods were used).
- Dependent variables: the absolute value of difference between the first and the second measurement for the 5 dimensions of personality traits as in the Big 5 model: Neuroticism, Extraversion, Openness to experience, Agreeableness, Conscientiousness.

Theoretical groups and the research scheme

The values of the independent variables were manipulated with by means of the instruction, which was different for all six theoretical groups. The characteristics of these groups are described in Table 1. The number of participants in each group was between 17 and 19.

The experimental schema allowing the verification of hypothesis and referring to the independent variables was constructed and based on a division to three major groups:

- A group in which different I-position were used in consecutive measurements (groups 1 and 2 from Table 1.) (N = 38)
- A group in which different Positioning methods were used in consecutive measurements (groups 3 and 4 from Table 1) (N = 35)
- A control group in which there was no difference between both measurements (groups 5 and 6 from Table 1) (N = 36)

Manipulating the I-position was performed by means of putting either Father or Mother in the instruction given to participants. Manipulating the Positioning method was acquired by giving instruction on what to do with the person of a parent: address a personal letter about own life's history (Positioning with Addressing) or imagine the face of this parent as if he/she was right next to the participant (Imaginative Positioning).

In the Addressing positioning method the participants directly and explicitly referred to one's mother or father by writing a letter. In the Imaginative positioning a shortened version of Baldwin and Holmes' procedure was used as in the research of Stemplewska-Żakowicz and colleagues (2006). The simplification refers only to the sense of sight by imagining the face. As the nature of the Positioning with Addressing method implies it is much longer (writing a letter) than visualizing faces, participants with Imaginative Positioning were also encouraged to write short life's history, however with no addressing. This was designed as a buffer aimed at prolonging the process of positioning so that the two versions of the Positioning method variable were more

Table 1. *Description of Theoretical Groups*

Group	Group character	Description	Factor present in both measurements	Factor changed between measurements: 1 measurement	Factor changed between measurements: 2 measurement
1	<i>E</i>	<i>Different I-positions activated in the same way through Imaginative positioning</i>	Imaginative Positioning	I-as-a-Mother's-child	I-as-a-Father's-child
1				I-as-a-Father's-child	I-as-a-Mother's-child
2	<i>E</i>	<i>Different I-position activated in the same way through Positioning with Addressing</i>	Positioning with Addressing	I-as-a-Mother's-child	I-as-a-Father's-child
2				I-as-a-Father's-child	I-as-a-Mother's-child
3	<i>E</i>	<i>The same I-position activated in two different ways (Father's child)</i>	I-as-a-Father's-child	Imaginative Positioning	Positioning with Addressing
3				Positioning with Addressing	Imaginative Positioning
4	<i>E</i>	<i>The same I-position activated in two different ways (Mother's child)</i>	I-as-a-Mother's-child	Imaginative Positioning	Positioning with Addressing
4				Positioning with Addressing	Imaginative Positioning
5a	<i>C</i>	<i>The same I-position activated twice both times in the same way</i>	Imaginative Positioning	I-as-a-Mother's-child	I-as-a-Mother's-child
5b				I-as-a-Father's-child	I-as-a-Father's-child
6a	<i>C</i>		Positioning with Addressing	I-as-a-Mother's-child	I-as-a-Mother's-child
6b				I-as-a-Father's-child	I-as-a-Father's-child

Note. Each theoretical group consists of two verses in the table. The difference is only in the sequence of when the variable factor was used in the measurements. This sequence was rotated for methodological clearance, however from the theoretical point of view there is no ground to assume that the sequence of using the variable factor (irrespectively to which of the independent variables it refers) differentiates the results. Thus, both verses combined form one theoretical group.

Key: Group character: E = Experimental; C = Control.

compatible. What is important, after writing the short story, the participants of the Imaginative Positioning groups were asked to visualize the given face one more time.

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Research materials

To measure the dependent variable NEO-FFI Personality Inventory constructed by Costa and McCrae was used in its Polish adaptation of Zawadzki and colleagues (1998). The NEO-FFI consists of 60 items in forms of statements, for example I like having people around. The participants declare their opinions on the statements by choosing answers from 1-Completely disagree to 5-Entirely agree. 60 items are divided into 12 statements for each of the 5 Personality dimensions: Neuroticism, Extraversion, Openness to experience, Agreeableness and Conscientiousness. As it was not justified from the theoretical perspective (and therefore not mentioned in the hypothesis) to assume the direction of differences in the personality dimensions' results, it was agreed that the absolute value of difference between measurements of each 5 dimensions was the indicator of the dependent variable.

The NEO-FFI was attached to the instruction which contained information about the specific I-position and Positioning. The participants were asked to give their age, gender and a unique nickname that would enable finding pairs of results for the same person from each of the two measurements.

Procedure

Each group of participants was informed that the experiment was conducted to investigate their personal styles of writing and the validation of the questionnaire. The real aim of the experiment was masked. Then, each participant was given a sheet containing: a) the instruction which differed according to the group by the person mentioned (Mother or Father) and the instruction on what to do (address a story or imagine face); b) free space to write a story; c) NEO-FFI questionnaire; and d) space to give age, sex and nick name. The participants were informed that the experiment should not take longer than 20 minutes, however there was no time limit set (which was exactly as in the NEO-FFI instruction, see Zawadzki et al., 1998). Sheets with instructions for control and experimental groups were randomized before giving them to the participants. The procedure of the second measurement taking place after a week was exactly the same. The random selection was a part of the first measurement. In the second measurement a participant had to read his/her color from the list containing nicknames. The color indicated the sheet which was assigned to one of the groups. That is how it was possible to give the right sheet to the right person in the second measurement.

Experimental Hypothesis

The described experiment was aimed at verifying Hypothesis 1 and 2 as well as answering two empirical questions, all listed below:

- Hypothesis 1. The activation of different I-positions in two consecutive measurements causes bigger differences between the results of the first and the second measurement on each of the 5 factors of Personality, assessed using the

NEO-FFI Personality Inventory, than as for the case in which both measurements look exactly alike.

- Hypothesis 2. Using two different methods of experimental Positioning in two consecutive measurements causes bigger differences between the results of the first and the second measurement on each of the 5 factors of Personality, assessed using the NEO-FFI Personality Inventory, than as for the case in which both measurements look exactly the same.
- Empirical question 1. Do the two different I-positions influence the differences on the 5 factors of Personality in consecutive measurements in a different way?
- Empirical question 2. Do the two different methods of experimental Positioning influence the differences on the 5 factors of Personality in consecutive measurements in a different way?

Results and Interpretation

Verification of hypothesis

Both hypotheses are directly related to the assumption about the specificity of Personality for the relational context and the way of being put (or getting into) this context. It was expected, that in the conditions involving a change of the I-positions or a change of the Positioning method between the measurements, the absolute value of differences for each of the NEO-FFI dimensions between the first and the second measurement would be bigger than when both of the measurements were alike. Did the effect occur?

Firstly, the manipulation did not turn out to be of much strength, as both in the groups in which the measurements did differ and in the control groups, in which there was no manipulation on the I-position or the Positioning method, the Pearson product-moment correlation coefficients of results for all 5 dimensions of the NEO-FFI between measurements were highly significant, $p < 0,001$. Despite it has no direct impact on the hypothesis, it still shows the high reliability of the NEO-FFI Personality Inventory, which remained reliable even though the experimental procedure was different in the two measurements. The Pearson product-moment correlation coefficients are shown in Table 2.

However some significant results were revealed by the tests of differences between correlation coefficients. These tests compared the correlation coefficients from the groups with different I-positions (1) to the correlation coefficients from the groups with no difference between measurements (3) as well as from the groups with different methods of experimental Positioning (2) to the groups with no difference between measurements (3). These correlation coefficients' differences are presented in Table 3.

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Table 2. Correlation coefficients of results of each personality dimension between both measures for each group and the whole probe

Type of group	Correlation coefficients between the 1 and the 2 measurement				
	Neuroticism	Extraversion	Openness	Agreeableness	Conscientiousness
All participants	0.850*	0.859*	0.891*	0.828*	0.894*
Different I-Positions	0.831*	0.887*	0.842*	0.832*	0.936*
Different Positioning	0.820*	0.760*	0.859*	0.810*	0.844*
The same conditions twice	0.915*	0.891*	0.958*	0.848*	0.895*

Note. All correlation coefficients are significant. * $p < 0.001$

Table 3. Significance of correlation coefficients' differences

Personality dimensions	Correlation coefficients		Significance of difference between correlation coefficients
	Different I-positions (n=38)	The same conditions (n=36)	p of difference
NEU	0.831	0.915	0.1359
EXT	0.887	0.891	0.9376
OPN	0.842	0.958	0.0056*
AGR	0.832	0.848	0.8233
CON	0.936	0.895	0.2909
	Different positioning (n=35)	The same conditions (n=36)	p of difference
NEU	0.820	0.915	0.1111
EXT	0.760	0.891	0.0873
OPN	0.859	0.958	0.0132*
AGR	0.810	0.848	0.6246
CON	0.844	0.895	0.3968

Note. * $p < 0.05$

Key: NEU = Neuroticism; EXT = Extraversion; OPN = Openness to Experience; AGR = Agreeableness; CON = Conscientiousness

For the Openness to experience scale, the Pearson product-moment correlation coefficients between measurements in these groups in which the I-positions or the Positioning method were changed between measures, despite being generally high, they still were significantly lower than the correlation coefficients in the group in which there were no changes between measurements. The difference of correlation coefficients shows the effectiveness of experimental manipulation for this personality dimension, and the direction (correlation coefficients lower in experimental groups) supports both hypothesis. What is more, for the Extraversion dimension, in the group where positioning method was changed between measures, despite the correlation being high in general, they still tend to be lower than correlation coefficients in the control group. This trend is also supportive for the Hypothesis 2.

Moreover, to investigate the influence of the I-positions and the Positioning methods on Personality, 5 one-factor univariate ANOVA analysis were conducted. The result for the Openness seems to be the most dependent to the I-positions and the Positioning changes, although it is only a tendency, $F(2, 106) = 2,623$; $p = 0,078$; $\eta^2 = 0,047$. The results of the ANOVAs for each of the 5 dimensions are shown in Table 4.

Table 4

Results of ANOVA for each of the 4 personality dimensions of the NEO-FFI

Dimension	F(2. 106)
Neuroticism	1.725; $p = 0.183$; $\eta^2 = 0.032$
Extraversion	0.508; $p = 0.603$; $\eta^2 = 0.010$
Openness	2.623; $p = 0.078$; $\eta^2 = 0.047$
Agreeableness	0.480; $p = 0.620$; $\eta^2 = 0.009$
Conscientiousness	2.360; $p = 0.099$; $\eta^2 = 0.043$

To get more details on whether different I-positions or different Positioning methods in consecutive measurements can differentiate the results of the NEO-FFI dimensions, and to find out the reason behind the above described trends, the results were a subject of analysis of contrasts planned according to the 3 large experimental groups.

The analysis of contrasts, shown in the Table 5, revealed a number of significant differences.

Significant differences were revealed for the Neuroticism dimension between the group with different Positioning methods and the group in which there were no

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differences between measurements, $t(106) = -1,82$; $p < 0,05$. The result is highly reliable due to the variances of Neuroticism dimension being homogeneous.

Table 5. ANOVA: Analysis of Contrasts

	Equality Assumption	Contrast vs. No Difference	Contrast Value	Standard error	t	df	Significance (one-way)
NEU	Variance	I-P and P	-1.6865	1.20602	-1.398	106	.083
		I-P	0.4079	.68845	.592	106	.278
		P	-1.2786	.70266	-1.820	106	.036*
EXT	No variance	I-P and P	-0.6363	.94982	-.670	97.8	.252
		I-P	-0.0482	.53279	-.091	65.3	.464
		P	-0.5881	.65801	-.894	51.3	.188
OPN	No variance	I-P and P	-1.6749	.63764	-2.627	99.9	.005
		I-P	-0.9137	.37526	-2.435	63.7	.000*
		P	-0.7611	.42376	-1.796	53.7	.039*
AGR	Variance	I-P and P	0.0629	.9353	.067	106	.474
		I-P	0.2939	.53392	.550	106	.292
		P	-0.2310	.54494	-.424	106	.337
CON	Variance	I-P and P	-0.9074	0.93875	1.113	106	.168
		I-P	0.0775	.53589	-.023	106	.443
		P	-0.9849	.54695	-1.777	106	.038*

Notice. * $p < 0.10$ due to direction hypothesis in contrasts 2 (EXT) and 3 (OPN)

Key: NEU = Neuroticism; EXT = Extraversion; OPN = Openness to Experience; AGR = Agreeableness; CON = Conscientiousness; *Contrasts*: I-P = I-positions; P = positioning.

Similar differences were revealed for the Conscientiousness dimension, $t(106) = -1,78$; $p < 0,05$. In this case the variance was also homogeneous. Thus, the results of difference in Neuroticism and Conscientiousness between the group with a change in the Positioning methods and the group with no difference between measurements are the strongest outcomes of the contrast analysis and at the same time a support to the Hypothesis 2. This is indicated in Figure 1 and Figure 2. The differences between measurements for these two dimensions were significantly higher in the groups in which

Figure 1. Significant difference between the level of average differences between measures of Neuroticism, in group with different positioning methods and the control group

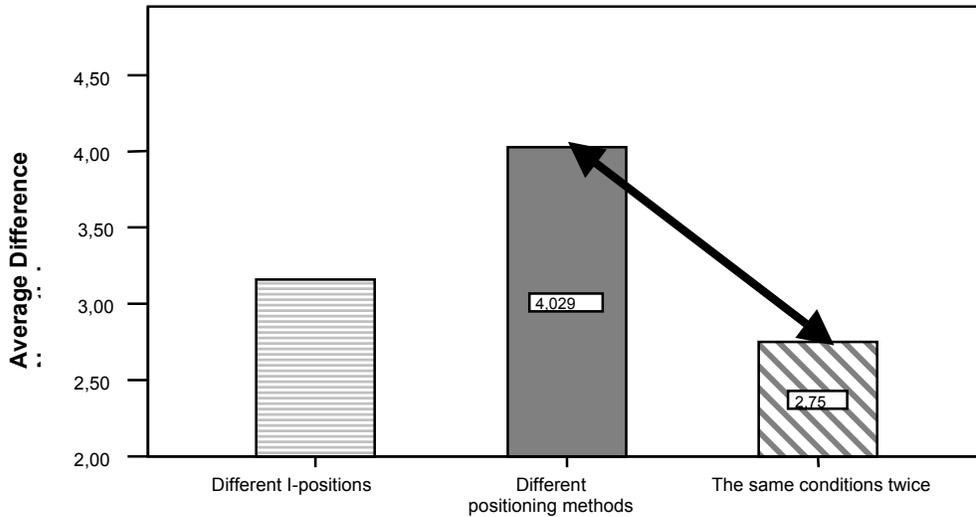
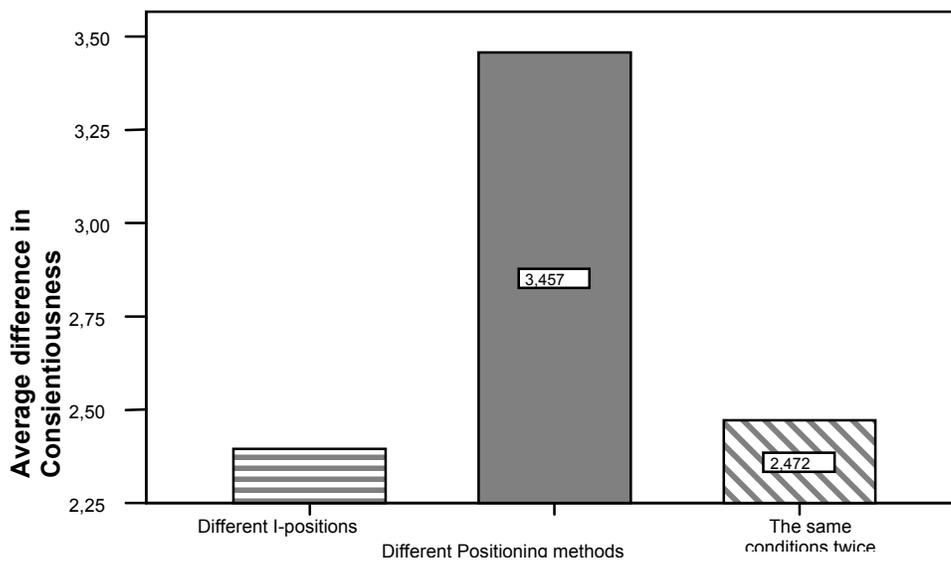


Figure 2. Significant difference between the group in which the measurements differed by the Positioning method and the group in which measurements did not differ, for the dimension of Conscientiousness



the methods of Positioning were changed than in the group where nothing was changed between measurements.

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For the dimension of Extraversion none of the contrasts was statistically significant. For the Openness to experience dimension, the comparison between the groups in which the measurements did differ (different I-positions and different Positioning method together) and the groups with the same conditions twice, resulted in a significant effect: $t(100) = -2,63$; $p < 0,01$. Similarly, changing the I-positions vs. no difference between measurements: $t(64) = -2,435$; $p < 0,01$. The comparison between the group with different Positioning and the group with no changes also revealed significant results: $t(54) = -1,78$; $p < 0,05$. For the dimension of Openness, the variance inequality correction was used, thus the reliability of these significant results is slightly lower than of those described above for the Neuroticism and Conscientiousness dimensions, however the results still support both of the hypotheses. As for the Agreeableness dimension, no significant contrasts were found. It must also be pointed out that the contrasts used were not orthogonal, however they enabled a high number of comparisons.

To sum up, the results of this experiment can be perceived as partly positively verifying especially Hypothesis 2. Changing the Positioning method differentiated the results of 3 out of 5 dimensions (Neuroticism and Conscientiousness significantly, and Openness to experience on the tendency level). Furthermore, the correlation coefficients for the fourth dimension – Extraversion- were significantly higher when the Positioning method was changed as compared to the group in which both measurements did not differ. The results concerning the Positioning seem to be in line with the findings of Stemplewska-Żakowicz and her colleagues (2006), who indicated that different positioning methods activate different codes of representation: the imaginative positioning may activate the procedural code which is non verbal, while the positioning using addressing method activates the declarative code which is verbal and explicit. This interpretation is in line with the concept put forward by Stemplewska-Zakowicz (2004), in which, besides the vertical/longitudinal modularity organized by relations (as in the Dialogical Self), another horizontal/transversal modularity in which the modules are differentiated by with the representation codes. This concept refers to Greenwald's (1982) proposal of different codes and access limits between modules storing data encoded in these codes.

Hypothesis 1 finds only weak empirical support in this study, by which I mean the results for the Openness to experience dimension. Why is it so? Perhaps the I-as-a-Father's-child and I-as-a-Mother's-child I-positions used in this research, despite being related to primary objects, as object relational psychologists would point out, are not adequate I-positions considering the dependent variables used. It can be speculated that the majority of dimensions of Personality, possibly apart from Openness, develop within a relation with both parents, and thus the use of an I-position of I-as-a-child-of-my-Parents would be more adequate in this research. Or maybe each of the parents uses its own way (maybe even different codes?) to shape the dimensions of Personality similarly?

Table 6. *Groups considered in the first comparison: MANOVA The Positioning Factor x I-position*

Group No.	Group character	Factor present in both measurements	Factor changed between measurements: 1 measurement	Factor changed between measurements: 2 measurement	Positioning Factor	I-position
1	E	Imaginative Positioning	I-as-a-Mother's-child	I-as-a-Father's-child		
1		Imaginative Positioning	I-as-a-Father's-child	I-as-a-Mother's-child		
2	E	Positioning with Addressing	I-as-a-Mother's-child	I-as-a-Father's-child		
2		Positioning with Addressing	I-as-a-Father's-child	I-as-a-Mother's-child		
3	E	I-as-a-Father's-child	Imaginative Positioning	Positioning with Addressing	Change	Father's Child
3		I-as-a-Father's-child	Positioning with Addressing	Imaginative Positioning		
4	E	I-as-a-Mother's-child	Imaginative Positioning	Positioning with Addressing	Change	Mother's Child
4		I-as-a-Mother's-child	Positioning with Addressing	Imaginative Positioning		
5a	C	Imaginative Positioning	I-as-a-Mother's-child	I-as-a-Mother's-child	Imaginative Twice	Mother's Child
5b		Imaginative Positioning	I-as-a-Father's-child	I-as-a-Father's-child	Imaginative Twice	Father's Child
6a	C	Positioning with Addressing	I-as-a-Mother's-child	I-as-a-Mother's-child	Addressing Twice	Mother's Child
6b		Positioning with Addressing	I-as-a-Father's-child	I-as-a-Father's-child	Addressing Twice	Father's Child

Note. E = Experimental; C = Control. **Bold** indicates the groups taking part in the analysis.

At least a partial answer to these speculative questions was available after a more detailed analysis aiming at answering Empirical Questions 1 and 2.

Answers to the Empirical Questions

To acquire more detailed results which would enable answering Empirical Questions 1 and 2, two separate two-factor multivariate variation analyses (2 x MANOVA) were conducted, giving way to comparing groups formed by certain factors on the basis of differences on more than one dependent variable.

The first analysis was aimed at verifying whether the change of the Positioning method in general differentiates the differences between results of the NEO-FFI and whether it does it differently for the I-as-a-Mother's-child and I-as-a-Father's-child I-positions. The groups qualified to this comparison had the same I-positions in both measurements, however some of them had the same Positioning method used twice, and others- different methods of Positioning in the consecutive measurements. The Positioning Factor was created and it had 3 possible values: Change in Positioning (different Positioning methods in both measurements), Imaginative Twice (both

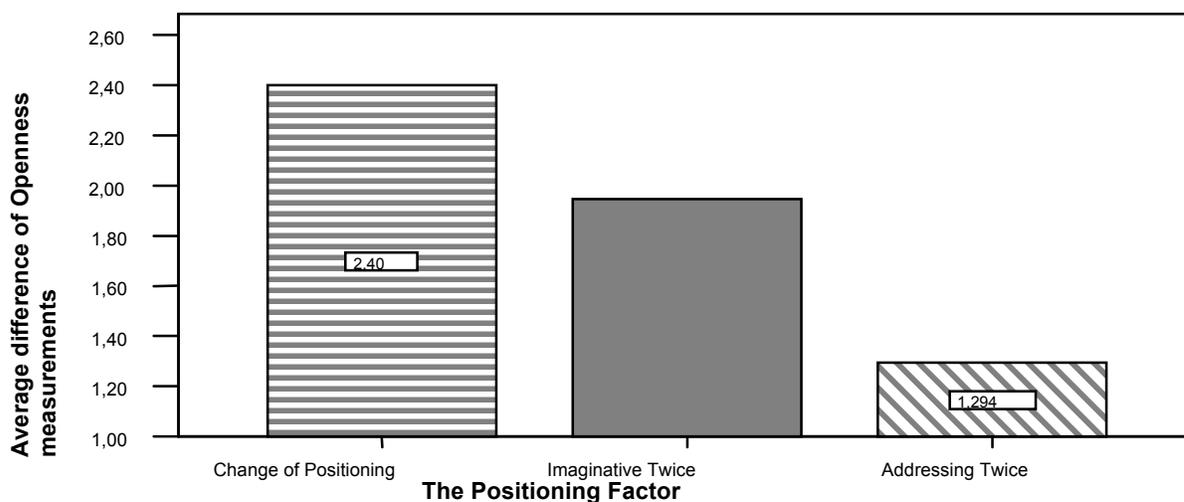
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measurements with Imaginative Positioning) and Addressing Twice (Positioning using Addressing in both measurements). The I-position factor (I-as-a-Father's-child and I-as-a-Mother's-child) was also taken into consideration. In the first analysis, experimental groups 3 and 4 were compared with control groups 5a, 5b and 6a, 6b (see table 6 for details).

Firstly, multivariate tests did not show that the factors differentiate the dependent variables as a whole. A significant effect of the Positioning Factor was not found, nor was the effect of I-positions.

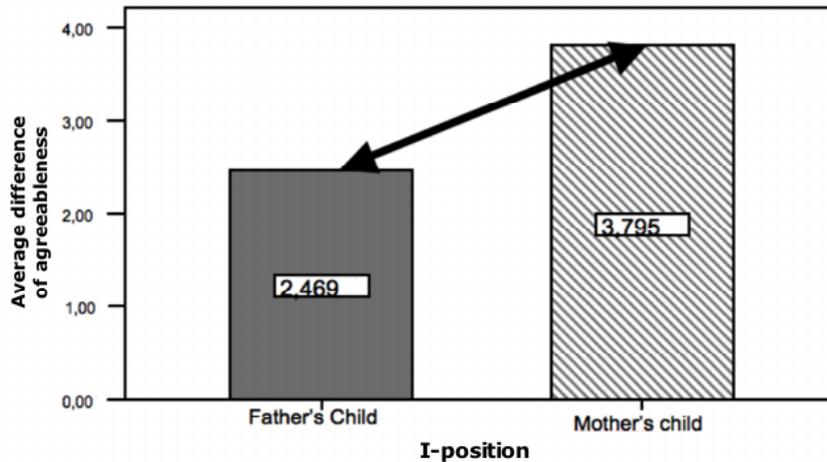
Then however, in the univariate analysis it was revealed that the differences of results for the Openness dimension tend to be differentiated by The Positioning Factor, $F(2, 65) = 2.53$, $p = 0,088$, $\eta^2 = 0.072$. To analyze the direction of this tendency, the pairs' comparisons were conducted. They revealed that the experimental group, in which the Positioning method was changed, tended to have bigger differences on Openness than the control group, in which the Positioning with Addressing method was used twice. (see Table 6: groups 3 and 4 > 6a and 6b). This result is a tendency, $p = 0.085$. It is shown in Figure 3.

Figure 3. The difference between Openness measurements tends to be bigger when Positioning method is changed between measurements than when in both control measurements the Positioning with Addressing method is used.



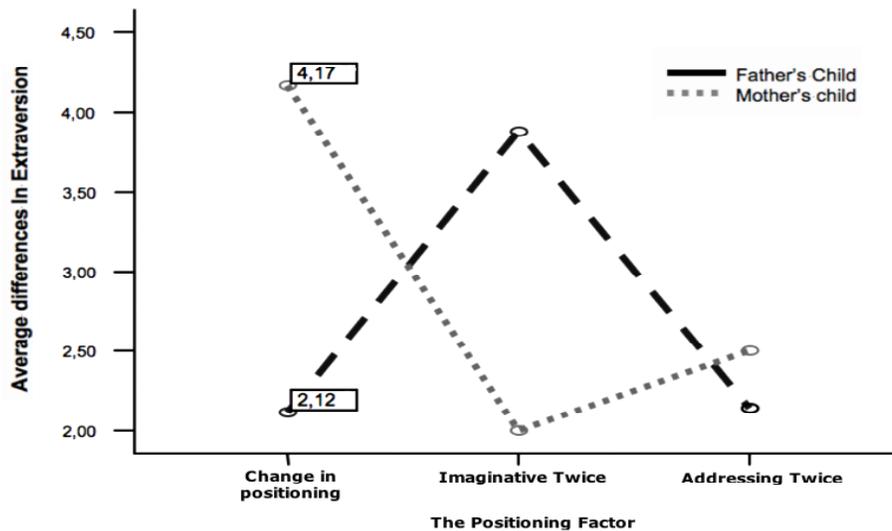
In addition, more significant results were found for the Agreeableness dimension. The I-position significantly affected the difference of results between this dimension's measurements, $F = (1, 65) = 5,47$; $p < 0,05$; $\eta^2 = 0,145$. The difference between the first and the second measurement was higher in the group in which people were positioned as I-as-a-Mother's-child than in the group positioned as I-as-a-Father's-child ($p < 0,05$), which is shown in Figure 4. (groups 3, 5b, 6b > 4, 5a, 6a).

Figure 4. The I-position significantly influences the differences in participants' Agreeableness. People positioned as I-as-a-Mother's-child had bigger differences between measurements



The analysis also showed interaction effects between The Positioning Factor and the I-position. This was observed for the differences in Extraversion results, $F(2, 65) = 3,272$; $p < 0,05$; $\eta^2 = 0,091$. The groups which were positioned in the I-as-a-Father's-child I-position had significantly lower differences between Extraversion measurements than people who were positioned in the I-as-a-Mother's-child I-position, but only when the Positioning method was changed between measurements ($p < 0,05$). When the Positioning method remained unchanged, no such differences were observed. This is shown in Figure 5.

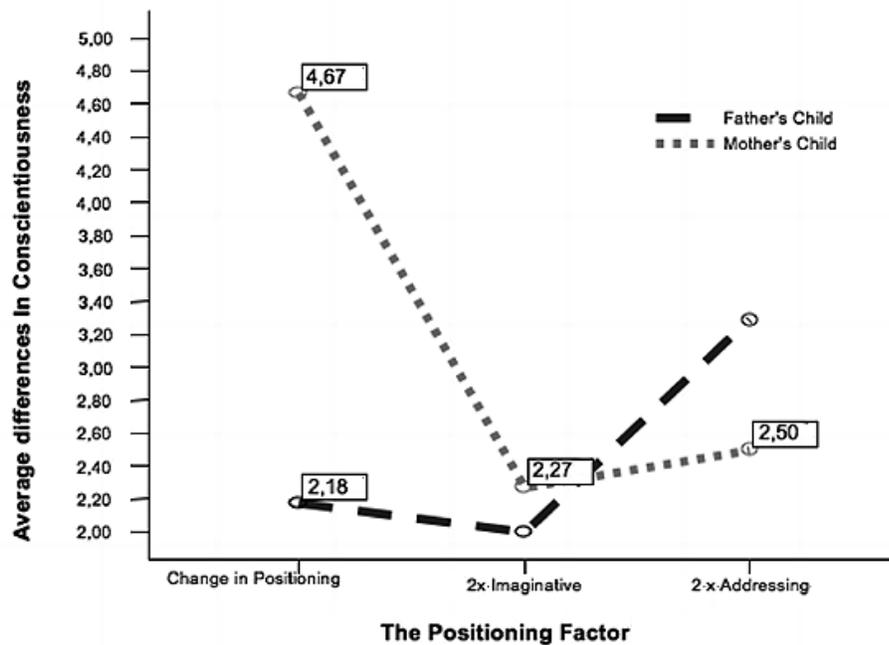
Figure 5. Interaction effect of The Positioning Factor and I-position for Extraversion. A significant difference between I-positions when the Positioning Method was changed



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There is a trend of interaction for the differences between Conscientiousness measurements as well, $F(2, 65) = 3.059$; $p = 0.054$; $\eta^2 = 0.086$. People positioned as I-as-a-Father's-child had smaller differences between Conscientiousness measurements only when the Positioning method was changed between the measurements. When the Positioning method remained unchanged, the differences were not observed. Furthermore, for the Conscientiousness dimension, in the group which was positioned as I-as-a-Father's-Child, no differences between groups with different Positioning methods uses were observed, while people positioned as I-as-a-Mother's-child who were Positioned using a different method in the consecutive measurements had bigger differences than people in the same I-position who were positioned using the Imaginative Positioning twice ($p < 0,05$) There is a similar tendency for the Positioning with Addressing as well, $p = 0.073$. This is shown in Figure 6.

Figure 6. Interaction of The Positioning Factor and I-positions for Conscientiousness. A significant difference between I-positions only when the Positioning method was changed



The second MANOVA tested whether in general a change in I-positions can influence the differences of the NEO-FFI results between repeated measurements, and whether it happens in a different way depending on the Positioning method used. Groups in which the same method of experimental Positioning was used two times were qualified for the test, however some of these groups had different I-positions in these measurements and some had the same I-positions used twice. The Position Factor was formed with 3 values: Change in Position between measurements, I-as-a-Mother's-Child

Table 7. Groups taking part in the Comparison 2: MANOVA The Position Factor x Positioning Method

Group No.	Group character	Factor present in both measurements	Factor changed between measurements: Measurement 1	Factor changed between measurements: Measurement 2	Position Factor	Positioning
1	<i>Experimental</i>	Imaginative Positioning	I-as-a-Mother's-child	I-as-a-Father's-child	Change	Imaginative
1		Imaginative Positioning	I-as-a-Father's-child	I-as-a-Mother's-child		
2	<i>Experimental</i>	Positioning with Addressing	I-as-a-Mother's-child	I-as-a-Father's-child	Change	Addressing
2		Positioning with Addressing	I-as-a-Father's-child	I-as-a-Mother's-child		
3	<i>Experimental</i>	I-as-a-Father's-child	Imaginative Positioning	Positioning with Addressing		
3		I-as-a-Father's-child	Positioning with Addressing	Imaginative Positioning		
4	<i>Experimental</i>	I-as-a-Mother's-child	Imaginative Positioning	Positioning with Addressing		
4		I-as-a-Mother's-child	Positioning with Addressing	Imaginative Positioning		
5a	<i>Control</i>	Imaginative Positioning	I-as-a-Mother's-child	I-as-a-Mother's-child	I-as-a-Mother's-child	Imaginative
5b		Imaginative Positioning	I-as-a-Father's-child	I-as-a-Father's-child	I-as-a-Father's-child	Imaginative
6a	<i>Control</i>	Positioning with Addressing	I-as-a-Mother's-child	I-as-a-Mother's-child	I-as-a-Mother's-child	Addressing
6b		Positioning with Addressing	I-as-a-Father's-child	I-as-a-Father's-child	I-as-a-Father's-child	Addressing

Notice. **Bold** indicates the groups taking part in the described analysis.

in both measurements and I-as-a-Father's-Child in both measurements. The Positioning method with two values: Imaginative and Addressing was also a part of the analysis. The groups in this comparison are indicated in the Table 7.

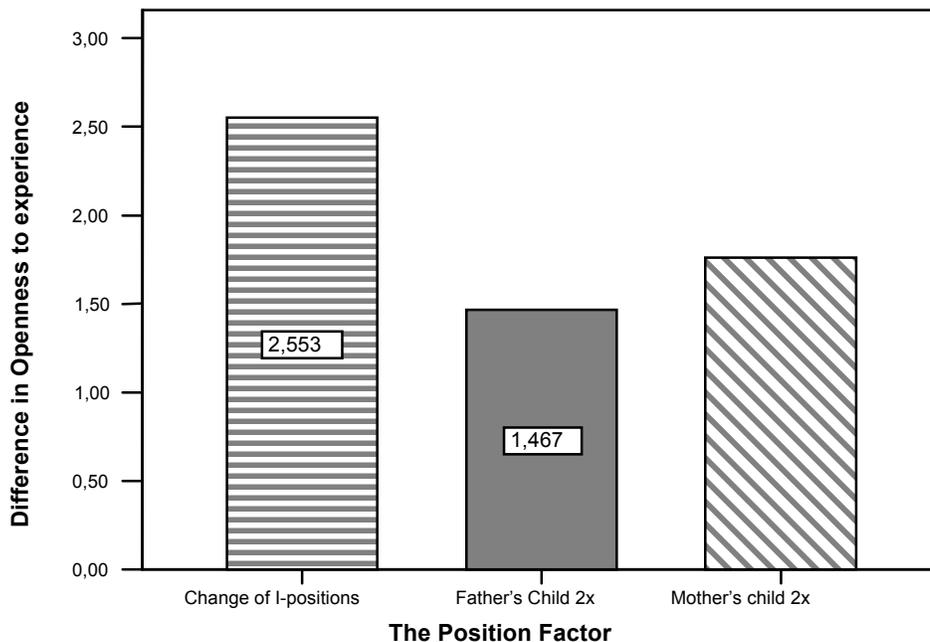
Multivariate tests did not reveal that the factors differentiated the variables in general. Neither the effect of The Position Factor nor the effect of the Positioning were significant.

Univariate analysis however revealed some interesting results. The Position Factor differentiated significantly the differences between Openness measurements, $F(2, 68) = 3,18$; $p < 0,05$; $\eta^2 = 0,086$. There is also a tendency to a difference between the

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group in which the activated I-position was changed and the group in which the I-as-a-Father's-Child position was activated twice, $p = 0,081$. This trend is shown in Figure 7. In the group, in which the I-positions were changed between measurements, the differences of the Openness results were bigger (see Table 5: groups 1 and 2 > 5b and 6b).

Figure 7. For the Openness dimension, a trend was observed that the differences among people whose I-positions were changed were higher compared to the people positioned in the I-as-a-Father's-child I-position twice

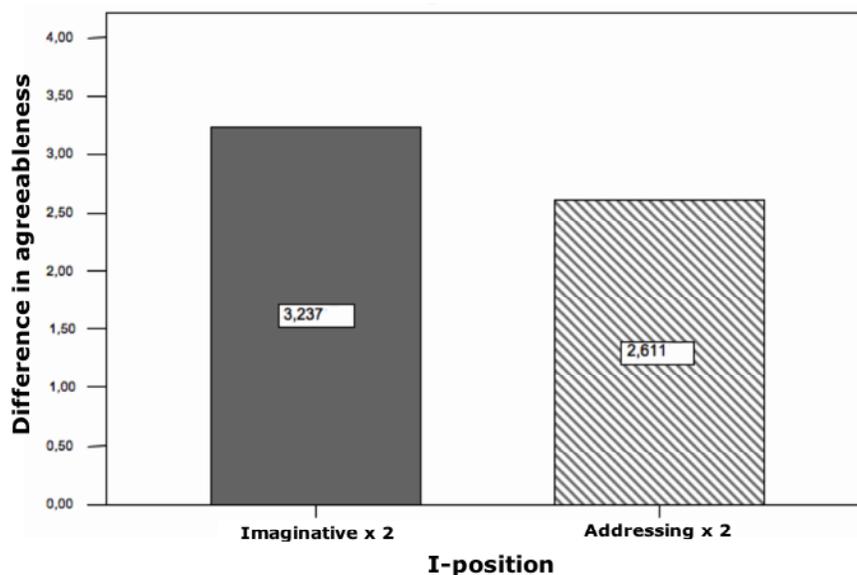


Positioning tends to differentiate the results on Agreeableness dimension, $F(1, 68) = 3,08$; $p = 0,084$; $\eta^2 = 0,043$. The difference in Agreeableness between the first and the second measurement had a tendency to be higher in the groups in which Imaginative Positioning was used twice than in the groups where Addressing was used as a method of Positioning both times, $p = 0,084$ (see Table 5: groups 1, 5a, 5b > 2, 6a, 6b). This tendency is illustrated in Figure 8.

In the second MANOVA, unlike in the first one, no statistically satisfying interaction effects were revealed between the compared groups.

To sum up the described analysis, the experimental group, in which the Positioning method was changed between measurements, tended to have bigger

Figure 8. Differences of Agreeableness tended to be higher in groups with Imaginative Positioning twice than in groups with Positioning with Addressing twice.



differences between Openness measurements than the control group, in which Addressing method was used twice. What is more, the I-as-a-Mother's-Child and I-as-a-Father's-child reacted differently to the positioning method being changed and to the different methods of Positioning. The Conscientiousness of I-as-a-Mother's-Child positioned people were more dependent on the positioning method change than the I-as-a-Father's-Child I-position. When a change in the positioning method took place, the differences on Conscientiousness for I-as-a-Mother's-child was significantly higher than the differences on Conscientiousness for I-as-a-Father's-child. However when the Positioning method did not change, the differences were not observed. Moreover, the I-as-a-Mother's-children who were a subject of a change in the positioning method significantly differed in Conscientiousness differences from both the I-as-a-Mother's-children positioned Imaginatively twice and the I-as-a-Mother's-children positioned with Addressing two times. The I-as-a-Mother's-children were more vulnerable to the Positioning changes than the I-as-a-Father's-children as far as differences in the Extraversion results are concerned. They were significantly higher for the former I-position than for the latter. In addition, the positioning had an impact (a statistical trend here) on the Agreeableness results' differences, which were slightly higher in the groups with Imaginative Positioning applied twice than in the groups with the Positioning with Addressing done twice. Therefore, there is evidence for 4 out of 5 personality dimensions showing how the positioning method can influence differences in personality dimensions' results. This implies a positive answer to Empirical Question 2. Moreover,

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the Conscientiousness and Extraversion differed depending on the positioning method in a variety of ways- according to the I-position used.

A diverse influence of the I-positions on the results is also reflected in the data concerning differences in Openness, which were higher when the activated I-position was changed than when the I-as-a-Father's-child I-position was activated twice. The I-as-a-Mother's-child positioned participants were significantly more Agreeable than the I-as-a-Father's-child positioned ones. A diverse influence of the I-position on these two dimensions – Openness and Agreeableness- determines the answer to the Empirical Question 1. What is more, there were two pieces of evidence for the higher vulnerability of the I-as-a-Mother's-child I-position to the change of the positioning method (for Conscientiousness and Extraversion), which may well suggest a bigger difference in horizontal modularity for this I-position in these dimensions. However this interpretation is not conclusive.

Additional analysis: The effect of repeated measurements

The division to theoretical groups (see Table 1) was created so that due to rotating the conditions no difference in average results between the first and the second measurement of each of the dimensions was supposed to occur. This however was controlled and tested to find out whether the repetition of measurements alone caused significant effects. What is interesting is that in the control group, the participants scored significantly higher on the Agreeableness scale in the first measurement ($M = 28,39$; $SD = 6,65$) than they did in the second one ($M = 27,03$; $SD = 6,13$); $t(35) = 2,30$; $p < 0,05$. One of the possible explanations lays in the methodology of this experiment. A repeated measurement meant filling in 60 items of the NEO-FFI Inventory twice within a week. This can be especially frustrating in the control group for which there was no difference whatsoever in priming or procedure. The task was repeated exactly in the same way. As a researcher I was on the receiving end of the explicit frustration, slight irritation and sounds of boredom and winnings “The same again?!” were not uncommon. The Agreeableness dimension describes positive vs. negative attitude to others, altruism vs. antagonism, trust vs. distrust, compassion vs. indifference and on the behavioral level- tendency to cooperation (see also Zawadzki et al. 1998). Thus, there is no surprise that it is the control group for which the tendency to cooperate with the researcher, the positive attitude towards him and his experiment and the level of altruism could be seriously diminished due to the frustration caused by repeating exactly the same task for a second time within a short period of time.

For other dimensions, the differences between the first and the second measurement were found insignificant.

Discussion

The presented research did not provide many significant results showing powerful effects. However, the tendency drew by the findings and statistically significant results, shows that the personality dimensions are less likely influenced by the relational context activated, here the I-position (although to some extent this is also true), but on the other hand they are more likely influenced by the code of representation activated by a specific Positioning method. This sort of double modularity of mind – horizontal and vertical – can be perceived as a bridge linking the discursive theories, rooted in language and the relations, from which the language is acquired, and the social cognitive theories, which pointed out the significance of coding and data processing long time ago (Stemplewska-Żakowicz, 2004). However, to successfully continue the studies in Personality (or other structures, functions and cognitive-affective dispositions) dependence to specific social context, it is recommended to see the boundaries of the described experiment, especially from the methodological perspective.

From this point of view more individual, idiographic but still highly controlled research seems to be important. By these means, a variety of interfering variables can be controlled, which are always present during a group experiment and influence the reliability of the results. One of the interfering variables which was present in the described experiment was how the seats and tables were arranged in class rooms. Sometimes they were arranged in a U form, sometimes they were installed in rows. It can be imagined that the former condition could have caused less comfort and privacy among some of the participants. This could have influenced the answers to the Inventory's questions. Similarly, for some participants the eye contact with another participant from the opposite side of the U table could have been a distracter and an encouragement to treat the experimental situation less seriously. Another interfering variable worth eliminating in following research is the role of a class tutor who introduced the researcher in slightly different ways. This could be eliminated in an individually enrolled research.

From the theoretical point of view, it might be a better solution to use a more developed version of the Baldwin and Holmes' (1987) procedure in the Imaginative Positioning method. The longer version could apply to more senses as in this experiment it only focused on imagining the face (mostly sight focused). Referring to more senses could help benefit from activating the non verbal code more fully, as this is the code activating the Imaginative Positioning, as opposed to Positioning with Addressing method based on verbal code, referring to thinking as an internalized speech and activating the dialogical communication mode (Stemplewska et al, 2006).

Finally, for a continuation of this kind of research, it seems to be worth looking beside the Mother and Father related I-positions. This postulate however has its limitations in Dialogical Self theory, because the repertoire of the I-positions, which is

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very large and subjective in its nature. The pair of I-positions used here seems to be common, however it may only be intuitive (perhaps the I-as-my-Parent's-child I-position is more common?). Despite the methodological advantage of repeated measurement in which the accuracy of the I-positions is less important, still if there is another independent variable, we do not know what are trying to activate and whether it is a real I-position of the person, naturally present in his/her life or mind. This kind of accuracy in activating personal I-positions is only available when we change the experimental method and use pre-interviews to get to know the subjective I-positions of each participant. It can be done for example by using Hermans PPR (2001b), designed for a more detail insight into personal I-positions repertoire and used in individual interviews with every participant.

From the point of view of personality psychology, this research supports the thesis that personality is not fixed and constant but has a margin of variability. However the relational variability seems to have less influence than expected from Dialogical Self theory. There was no evidence whatsoever that each I-position used in the experiment could be characterized by a different profile of the 5 dimensions. The method of experimental Positioning however proved to be more influential for some of the personality dimensions. It can be then perceived as another situational factor moderating our personality (Michel, 1969).

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