



## Short Communication

## Reflexive characteristic adaptations explain sex differences in the Big Five: But not in neuroticism



Sergei Shchebetenko

Department of Developmental Psychology, Perm State University, ul. Bukireva, 15, Perm 614990, Russia

## ARTICLE INFO

## Article history:

Received 29 October 2016

Received in revised form 31 January 2017

Accepted 2 February 2017

Available online xxxx

## Keywords:

Personality traits

Characteristic adaptations

Sex differences

## ABSTRACT

To date, sex differences in the Big Five personality traits have been thoroughly studied and well-documented. In the present two studies I examined if individual's opinions and interpretations of personality traits (reflexive characteristic adaptations, RCA) can eliminate these differences. Three RCA—attitudes toward traits, meta-traits, and meta-attitudes toward traits—were investigated. When measuring meta-traits and meta-attitudes toward traits, the images of students' parents (Study 1) and their best friends (Study 2) were employed as significant others. Study 1 ( $N = 1030$ ) revealed that women scored higher than men in neuroticism, extraversion, agreeableness, and openness. However, RCA eliminated these effects, with the exception of neuroticism. These results were largely replicated in Study 2 ( $N = 333$ ). Women scored higher than men in neuroticism and agreeableness. Again, these differences were eliminated by RCA, although the difference in neuroticism approached statistical significance. This research demonstrates that RCA may explain sex differences in various personality traits. Neuroticism may constitute a special case where men and women still differ in a trait beyond the contribution of RCA. The present study demonstrates that sex differences in the remaining traits may result from one's interpretations and opinions of these traits rather than from the traits themselves.

© 2017 Elsevier Ltd. All rights reserved.

## 1. Introduction

Sex (and gender) differences (and similarities) have remained a vital research topic throughout the history of psychology. The vitality of this problem relates to the wide range of practical implications from the variation in styles of peer relationships (Rose & Rudolph, 2006) to preferences in career choice (Buser, Niederle, & Oosterbeek, 2014). Personality traits can substantially contribute to these implications which is related to numerous findings of sex differences in personality itself (see Helgeson, 2015 for a recent review). The reasons for sex differences in personality may be manifold (Schmitt, Realo, Voracek, & Allik, 2008), including the discrepancy between men and women in social roles and status, method artefacts, differential evolutionary processes, gene-environment interactions, and so forth.

In the recent decades, a number of studies have examined sex differences within the five-factor model (e.g., Chapman, Duberstein, Sörensen, & Lyness, 2007; Costa, Terracciano, & McCrae, 2001; Schmitt et al., 2008; Weisberg, DeYoung, & Hirsh, 2011) and its predecessors (Booth & Irwing, 2011; Budaev, 1999; Feingold, 1994; Lynn & Martin, 1997). In most part, these findings demonstrate a remarkable degree of consistency and replicability. Women usually score higher than men on agreeableness (Budaev, 1999; Chapman et al., 2007; Costa et

al., 2001; Feingold, 1994; Schmitt et al., 2008) and on neuroticism (Booth & Irwing, 2011; Budaev, 1999; Chapman et al., 2007; Costa et al., 2001), a result which is conceptually related to the interpersonal circumplex (Wiggins, 1979) and is explained by either biological or environmental perspectives (Costa et al., 2001; Schmitt et al., 2008). Women often score higher on several facets of conscientiousness (Costa et al., 2001; Else-Quest, Hyde, Hill, & Van Hulle, 2006; Weisberg et al., 2011). Sex differences in extraversion are mixed such that women normally score higher on the warmth and gregariousness facets, whereas men score higher on the assertiveness facet. The analogous pattern has been found for openness to experience such that women typically outperform men in the facets of feelings and aesthetics, whereas men have higher levels of the ideas facet (Costa et al., 2001; Feingold, 1994; Weisberg et al., 2011). These findings are supported by the cross-cultural research (Costa et al., 2001; Lippa, 2010; Schmitt et al., 2008), although their interpretations are mixed.

In terms of the five-factor theory (McCrae & Costa, 2013), I recently provided a subclass of characteristic adaptations called reflexive (Shchebetenko, 2016). Reflexive characteristic adaptations (RCA) are self-schemas that represent opinions and interpretations by means of which individuals monitor, and reflect on, their personality traits and the personality trait idea in general. From the RCA perspective, self-reported personality traits represent just a single, though most relevant to individual differences in behaviour, viewpoint that a person has on the idea of personality. Accordingly, other viewpoints which one may

E-mail address: [shebetenko@gmail.com](mailto:shebetenko@gmail.com).

**Table 1**  
Unstandardized and standardized regression coefficients for sex and reflexive characteristic adaptations as predictors of personality traits: Study 1.

Predictors	Dependent variables									
	B [95% CI]					$\beta$				
	E	A	C	N	O	E	A	C	N	O
<b>Step 1</b>										
Sex	.15 [.06; .24]	.08 [.00; .15]	.03 [−.06; .11]	.43 [.34; .52]	.14 [.05; .22]	.10**	.06*	.02	.28	.10**
F (1, 1028)	10.17**	4.08*	.35	<b>84.74</b>	10.46					
R <sup>2</sup>	.010	.004	.000	.076	.010					
<b>Step 2</b>										
Sex	−.04 [−.10; .02]	−.00 [−.06; .05]	−.04 [−.09; .02]	.13 [.06; .19]	−.01 [−.07; .04]	−.03	−.00	−.03	.08	−.01
Attitude toward trait	.30 [.23; .37]	.34 [.27; .41]	.24 [.16; .32]	.12 [.04; .20]	.48 [.41; .56]	.20	.27	.14	.07**	.32
Meta-trait	.64 [.60; .67]	.50 [.46; .54]	.61 [.57; .64]	.69 [.65; .73]	.57 [.53; .62]	.69	.57	.72	.71	.59
Meta-attitude toward trait	−.07 [−.14; −.00]	−.03 [−.09; .04]	.09 [.01; .16]	−.02 [−.09; .06]	−.13 [−.19; −.07]	−.05*	−.02	.05*	−.01	−.10
F (4, 1025)	<b>393.68</b>	<b>292.46</b>	<b>64.86</b>	<b>326.99</b>	<b>378.55</b>					
R <sup>2</sup>	.606	.533	.587	.561	.596					
$\Delta R^2$	<b>.596</b>	<b>.529</b>	<b>.587</b>	<b>.484</b>	<b>.586</b>					

Note. N = 1030. E – extraversion, A – agreeableness, C – conscientiousness, N – neuroticism, O – openness. Sex: 2 = female (n = 691), 1 = male (n = 339).

Bolded values were statistically significant at  $p < .001$ .

\*\*  $p < .01$ .

\*  $p < .05$ .

have on personality, namely RCA, can both strengthen the relationships between traits and various life outcomes and at the same time relate to a life outcome that otherwise is unrelated to the trait itself. In other words, RCA produce incremental contributions to life outcomes as compared to conventional personality traits. Previously, three types of RCA have been proposed: attitudes toward traits, meta-traits, and meta-attitudes toward traits. Attitude toward traits represents individual's bipolar (positive vs. negative) evaluation of a given trait in general, without reference to a particular person, including the individual himself/herself. Meta-trait characterizes individuals' opinions on how their personality is perceived by significant others. Meta-attitudes toward traits represent individuals' beliefs about the attitudes toward traits their significant others might have.

RCA have been shown to mediate the links between the Big Five traits and such life outcomes as online social networking behaviour and academic achievement (Shchebetenko, 2016). In the following two studies I examine whether RCA may mediate the links between sex and personality traits.

## 2. Study 1

### 2.1. Method

#### 2.1.1. Participants

The participants were 1030 undergraduate students at a large Russian university aged from 17 to 38 years ( $M = 19.65$ ,  $SD = 1.72$ ), including 691 women (67.1%). One participant did not indicate her age. Prior to the study, the participants provided informed consent.

#### 2.1.2. Measures

The participants were presented with a Russian version (Shchebetenko, 2014) of the 44-item Big Five Inventory (BFI; John, Naumann, & Soto, 2008) and its modifications, aimed at measuring attitudes toward traits, meta-traits, and meta-attitudes toward traits (Shchebetenko, 2016). The detailed information on the modifications made has been provided in the Supplementary materials. Students' parents were used as significant others when measuring meta-traits and meta-attitudes toward traits. The attitude and the meta-attitude toward extraversion subscale showed poor internal consistency,  $\alpha_s = .57, 0.51$ , respectively. To improve the reliability of the subscales, three items were dropped: "reserve", "generation of strong enthusiasm", and "shyness". Afterwards, internal consistency became relatively acceptable,

$\alpha = .69, .65$ , respectively. The BFI versions that measured personality traits and the remaining RCA demonstrated at least acceptable internal consistency (see Supplementary materials for details).

### 2.2. Results and discussion

The series of hierarchical multiple regressions were conducted to find out whether RCA eliminate possible links between sex and personality traits (Table 1). Regression analyses were conducted for each trait separately. Sex was entered as a predictor in Step 1. In Step 2, three RCA were added as predictors. According to Step 1, sex differences were statistical in every trait with the exception of conscientiousness.<sup>1</sup> Women scored somewhat higher on neuroticism, openness, extraversion, and agreeableness as compared to men. The inclusion of three RCA indicators as predictors fully eliminated the relationships between sex and personality traits. The only exception has been found for neuroticism, whose effect remained statistical even after RCA had been included. However, this link was also substantially weakened.

These findings provide evidence that among the five basic traits neuroticism may have stable, albeit small, sex differences. Sex differences in three other traits—extraversion, agreeableness, and openness—may be a result of sex differences in RCA.

My further aim was to examine whether these findings are stable enough when significant others addressed in meta-traits and meta-attitudes toward traits are changed. In particular, in Study 2 best friends were employed as significant others, instead of parents used in Study 1.

## 3. Study 2

### 3.1. Method

#### 3.1.1. Participants

The participants were 333 Russian students aged from 17 to 23 years ( $M = 18.98$ ;  $SD = 1.43$ ), including 240 women (72.1%). Prior to the study, the participants provided informed consent.

#### 3.1.2. Procedure and measures

The procedure was identical to that of Study 1 with one exception: in case of meta-traits and meta-attitudes toward traits a best friend was

<sup>1</sup> Means, standard deviations,  $t$ s and Cohen's  $d$ s are presented in Supplementary materials.

Download English Version:

<https://daneshyari.com/en/article/5035958>

Download Persian Version:

<https://daneshyari.com/article/5035958>

[Daneshyari.com](https://daneshyari.com)