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UNDERSTANDING ENTITATIVITY: ARE THERE REAL DIFFERENCES BETWEEN APPROACHES?

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Abstract

Entitativity is a key construct for understanding group perception. But the question of understanding this construct is troublesome. There are three theoretical approaches to understanding group entitativity (essence-based entitativity, agency-based entitativity and unity-based entitativity) and at least two different empirical strategies for measuring the entitativity (operationalization in one of the theoretical approaches and entitativity as a set of characteristics from different approaches that work as a common scale). This paper aims to answer the question whether there are any differences in the various understanding of entitativity. In our studies entitativity is described as involving three components: "essence" (the group members' similarity), "agency" (the goals and the interaction between group members) and "unity" (the cohesion of a group and the degree of the group importance). In Study 1 a series of confirmatory factor analyses revealed that the three-component model of entitativity fitted the data well for different groups (ingroup, outgroup, intimacy groups and social categories) and demonstrated a better fit compared to the alternative model (entitativity as a common construct). The results of the study suggest that the components of entitativity are interrelated, but not identical to each other. Study 2 demonstrated that the use of different ways of understanding entitativity (such as "essence", "agency", and "unity" components or the common entitativity scale) doesn't lead to differences related to blatant prejudice, subtle prejudice, and identification. Our results demonstrate that there are no substantial differences between the measurements of entitativity. The implications of the obtained results for future research are discussed.

Keywords: entitativity, essence, agency, unity, prejudice, identification.

Hamilton and Sherman (1996) emphasize that there are differences between the perception of a single actor and a social group. In particular, the perception of a group is strongly connected with the group's entitativity. This concept was first introduced by Donald Campbell (1958), and was defined by Lickel et al. (2000) as the "degree to which a collection of persons are perceived as being bonded together into a coherent unit" (p. 224). Previous studies showed that entitativity is connected with identification (Castano, Yzerbyt, Paladino, & Sacchi, 2002; Castano, Yzerbyt, & Bourguignon, 2003; Crawford & Salaman, 2012; Hogg, Sherman, Dierselhuis, Maitner, & Moffitt, 2007), impression formation (Hamilton & Sherman, 1996), intergroup relations (Castano, Sacchi, & Gries, 2003; Dasgupta, Banaji, & Abelson, 1999), stereotyping (Crawford, Sherman, & Hamilton, 2002; Spencer-Rodgers,

Hamilton, & Sherman, 2007), ingroup bias and prejudice (Castano et al., 2002; Effron & Knowles, 2015; Gaertner & Schopler, 1998; Newheiser, Tausch, Dovidio, & Hewstone, 2009), changing attitudes (Clark & Thiem, 2015; Rydell & McConnell, 2005), collective responsibility (Denson, Lickel, Curtis, Stenstrom, & Ames, 2006; Lickel, Schmader, & Hamilton, 2003) and so on. These results make entitativity the main construct in the understanding of group perception. But the question of an operationalization of entitativity is troublesome. The analysis showed that there are three theoretical approaches and at least two different empirical strategies for measuring the entitativity.

The aim of this paper is to answer the question if there are any real differences between the various understandings of the entitativity. To attain this we have first examined the way group entitativity has been defined and measured over a number of years. In the second step, we have tested the factor structure of entitativity for various groups (intimacy group (ingroup/outgroup) and social categories (ingroup/outgroup)) (Study 1). In the third step, we have investigated the connection of different operationalizations of entitativity with prejudice and identification and whether the use of different scales brings different results (Study 2).

Approaches to the definition and measurement of entitativity

Essence-based entitativity

The "essence-based entitativity theories" consider similarity (homogeneity) in common attributes (e.g. physical features, personality traits, trait-related behavior et al.) (Crawford et al., 2002; Dasgupta et al., 1999) and common history (e.g. cultural socialization, life event) (Brewer, Hong, & Lee, 2004) as key characteristics of entitativity. These common attributes are considered as innate (skin color, gender) internal dispositions that are fixed and shared by all group members. In lay beliefs, people often (mis)attribute essences to social groups not making a distinction between physical features and personality traits. Consequently, they consider that somebody with specific properties (e.g. looking like an Asian man) has specific character traits (e.g. the ability to do maths) (Abelson, Dasgupta, Park, & Banaji, 1998; Dasgupta et al., 1999). Despite the popular view of the social group in lay perception, empirical studies showed that entitativity and homogeneity (similarity) are two different but related constructs that have independent impacts on the group's perception (Brewer et al., 2004; Crawford et al., 2002; Pickett & Perrott, 2004). Thus, Crump et al. (2010) showed that the perception of entitativity and homogeneity differs for ingroups and outgroups. In particular, the ingroup was perceived to be more entitative than the outgroup, and the outgroup was perceived as more homogeneous than the ingroup (out-group homogeneity effect). The authors concluded that homogeneity (similarity) is not a sufficient condition for the perception of entitativity, because in this case an interdependent but dissimilar person would be perceived as a part of a low-entitativity group, but this is a wrong way to describe a real social group.

Agency-based entitativity

According to Hamilton (2007) the interaction between the group members can be considered as another reason for entitativity, which gives the best theoretical framework to explain different group phenomena (i.e. stereotyping, prejudice, and discrimination). The "agency-based entitativity theories" are focused on describing the group members' heterogeneity and the variability of group parameters over time and in changing circumstances (Jans, Postmes, & Van der Zee, 2011). In this case, group entitativity is determined by the interaction of its members, the perception of a common fate, the group's goals and outcomes and the extent of the group organization (Brewer et al., 2004; Levy, Plaks, Hong, Chiu, & Dweck, 2001). According to this approach, in groups with high levels of entitativity, individuals are considered as interdependent and often communicate with each other to achieve the group's goals. In general, the interaction between a group's members is regarded as the most significant predictor of entitativity and this was confirmed at an empirical level. Welbourne (1999) has compared the interaction and similarity of a group's members as factors of group perception and concluded that interaction directed at achieving common goals better predicts a formed impression of a group's members than their similarity. Gaertner and Schopler (1998) experimentally manipulated the level of interaction between a team's members in competition and demonstrated that groups with an intensive level of interaction were assessed as being more entitative. Igarashi and Kashima (2011) confirmed this conclusion by studying the perception of a group's entitativity in social networks.

Entitativity as unity

Previous research has argued that the perception of social groups, especially group entitativity, is based on the unity of a group, and the cohesion of a group members (Crawford et al., 2002; Meneses, Ortega, Navarro, & de Quijano, 2008). Thurston (2012) asked the participants to categorize forty social groups into different clusters. In the first condition, participants sorted groups using the definition of entitativity as a basis for categorization ("degree to which a collection of individuals is perceived to be a single unit (i.e., one "thing")), in the secound condition, they performed the sorting task using the definition of cohesion as "dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs". Results showed that the content of the clusters in both conditions were shared by 75% of participants. In general, the researchers have demonstrated that cohesion is a strong predictor of the perception of a group as a whole (Carron et al., 2004; Ip, Chiu, & Wan, 2006; Mannarini, Rochira, & Talo, 2012). They suggested that some groups are more cohesive, or tightly connected, than others, and group cohesiveness increases the perceived entitativity of a group (Harasty, 1996).

Measurement of entitativity

We have analyzed the differences in theoretical approaches to the entitativity.

Now we shall turn to the analysis of the empirical measurement of entitativity. The analysis showed that on the empirical level the authors have used different types of measurement of entitativity, separately or in connection with one another. New measures typically have been constructed for each study drawing only partially or not at all on prior work. Nevertheless, basic measurement strategies can be distinguished in empirical studies. In the first case, the authors operationalize group entitativity in one of the approaches described above; for example, considering group entitativity as the only similarity of its members (e.g. "[Group members] are similar in physical appearance" (Kurebayashi, Hoffman, Ryan, & Murayama, 2012; Rutchick, Hamilton, & Sack, 2008; Spencer-Rodgers, Hamilton, et al., 2007)), the interaction between members of a group ("[Group members] share common goals and intentions" (Denson et al., 2006; Effron & Knowles, 2015; Rydell & McConnell, 2005)), or group members' unity ("the degree to which [Group members] qualify as a real group" or "[Group members] are like a unified whole" and so on) (Jans, Postmes, & Van der Zee, 2012; Koudenburg, Postmes, & Gordijn, 2014). The studies show that the different components are interconnected (Brewer et al., 2004; Ip et al., 2006; Rutchick et al., 2008). In the second case, the authors used a set of characteristics from different approaches that work as a common scale (Crawford & Salaman, 2012; Denson et al., 2006; Lickel et al., 2000; Sacchi, Castano, & Brauer, 2009) (e.g. "[Group members] share common goals and intentions", "[Group members] are like a unified whole" and "[Group members] are similar in physical appearance" in a common scale).

Summing up the theoretical and empirical results described so far, we could conclude that there are three theoretical approaches to describe the entitativity, and at least two various empirical strategies to operationalize this construct. In the next step, we examine which model of entitativity is most relevant to the data.

Study 1

Based on theoretical approaches and empirical strategies for measuring the entitativity we assumed that group entitativity could be described by two different models that are present in Figure 1. The first model (Figure 1a) describes entitativity as three components (essence, agency and unity), which are three scales of the generalized entitativity construct. The second model (Figure 1b) describes entitativity as a unicomponent construct, in which all items represent one common scale of entitativity. The aim of this study is to compare which of these models better describes the empirical data. To check the robustness of the models we measured the entitativity of four different groups (intimacy group (ingroup/outgroup) and social categories (ingroup/outgroup).

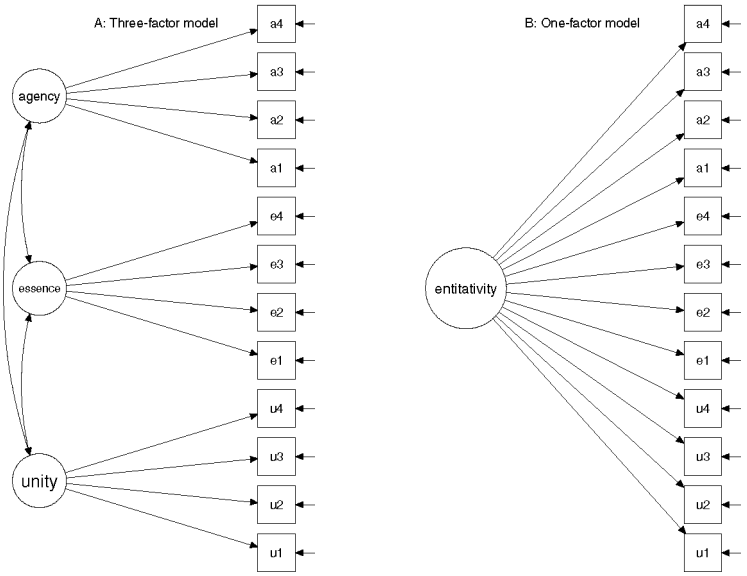
Method

Participants

Study participants were 394 Russians. The sample consisted of 22% males (n = 87) and 77.4% females (n = 305); two participants didn't specify their gender. Participants were

Figure 1

Alternative models of entitativity



between 13 and 64 years old, M_{age} = 25.63, SD_{age} = 11.15. All participants identified themselves as "Russian". Participants included 48 senior high school students, 144 students, and 189 respondents with higher education; 13 participants didn't specify their education.

Procedure and Materials

The data was collected through a Virtualexs system (a specialized system to gather empirical data). Registered users of this system received an email invitation to take part in a study about the perception of different social groups. Participation in the study was voluntary, anonymous and unpaid. Respondents had to fill in an electronic questionnaire in Russian and consistently evaluate four groups. Those chosen for this study included an intimacy group (ingroup – my family, outgroup – my friend's family) and social categories (ingroup – Russians, outgroup – migrants from Central Asia).

Measures

Based on three different approaches to entitativity, 12 items (four for each approach) have been picked up.

Essence component. This dimension included four items describing common attributes of the group's members: physical appearance, personality traits, trait-related behavior and common history (e.g. "Russians have many personality characteristics in common", "Russians share a common past experience"). All ratings were made on a 7-point Likert scale ranging from 1 to 7 (1 – absolutely disagree, 7 – absolutely agree).

Agency component. Four items described the amount of interaction

among members of each target group, whether the members had common goals and common outcomes (e.g. "Russians frequently interact with each other"). All ratings were made on 7-point Likert scale, ranging from 1 to 7 (1 – absolutely disagree, 7 – absolutely agree).

Unity component. Evaluation of this component was based on four items describing the group as a whole, cohesion and so on (e.g. "Russians are like a unified whole", "Russians are a cohesive group"). Each item was assessed on a 7-point Likert rating scale (1 – absolutely disagree, 7 – absolutely agree).

Data Analysis

We performed a series of confirmatory factor analyses (CFA) by using the maximum likelihood parameter estimates with standard errors and chi-square test statistic that are robust to non-normality (MLR). We compared two different measurement models of the entitativity, which reflect two main perspectives (see Figure 1). In order to investigate the factorial invariance of the proposed measurement model of entitativity, we conducted a series of multi-group CFA analyses testing the configural (same structure across groups), metric (same factor loadings across groups), and scalar (same factor loadings and item intercepts across groups) invariance of the model across the four types of an evaluated group (intimacy in-group, intimacy out-group, social in-group, and social out-group). Nested models were compared by using $\Delta\chi^2$ (Satorra & Bentler, 2001) and ΔCFI. We relied on the ΔCFI > .01 criterion of a significant difference (Cheung & Rensvold, 2002). All CFAs performed by *lavaan* R package (Rosseel, 2012).

Results and discussion

Table 1 shows goodness of fit indicators for two different models of the entitativity across four types of group (see Figure 1). In all types of groups, Model 1 showed a poor fit, with Root Mean Square Error of Approximation (RMSEA) values ranging from .122 to .142, Standardized Root Mean Square Residual (SRMR) values ranging from .086 to .106, Comparative Fit Index (CFI) values ranging from .709 to .826, and Tucker-Lewis Index (TLI) values ranging from .644 to .788. Model 2 showed a good fit except for the social out-group. CFI and TLI values exceeded the threshold of .930, RMSEA was below the threshold of .080, and SRMR did not exceed the critical value of .060 (Byrne, 2011; Hu & Bentler, 1999). In the case of the social outgroup (Migrants from Central Asia) Model 2 showed a poor fit. Analysis of the modification indices (MI) revealed an error covariance between two pairs of items: "The [group] is a well-organized group" (unity-3) and "The [group] is like a unified whole" (unity-4), "[Group members] can achieve a common goal together" (agency-2) and "[Group members] frequently interact with each other" (agency-3). Group specifics can explain these covariates. Migrants from Central Asia are perceived as members of a collectivistic culture, where the group is considered as unified and cohesive and the group's members as having stable intentions and the ability to achieve their goals together (Kashima et al., 2005; Spencer-Rodgers, Williams,

Hamilton, Peng, & Wang, 2007). Therefore, in evaluating this group the cohesiveness and inner organization of the group are more prominent than in others and this is a source of additional covariance. Furthermore, the items agency-2 and agency-3 have close wording in Russian and follow each other in the questionnaire, which could cause an error covariance. Since the covariates can be meaningfully explained, we modified Model 2 by freeing these two error covariances, after that the modified Model 2 showed a good fit to the data. The model's Akaike Information Criterions (AIC) also showed that Model 2 (a modified Model 2 in case of the social out-group (Migrants from Central Asia) has a better fit than Models 1 (a lower AIC value indicates a better trade-off between fit and complexity). All factor loadings exceeded .50 (except loading of the one item) in the social ingroup (Russians) which was .49 and differed from zero ($p < .001$) (see Figure 2).

These results indicate that the model with three latent factors that are three subscales of entitativity fitted the data better than the alternative one-factor model. And this model is robust across four different types of groups.

Table 1

Goodness of fit indicators for measuring models of the entitativity

Model	χ^2	df	RMSEA [90% CI]	SRMR	CFI	TLI	AIC
Intimacy in-group (family)							
Model 1	366.52*	54	.122 [.111; .132]	.089	.826	.788	16342
Model 2	127.54*	51	.062 [.050; .074]	.050	.957	.945	16049
Social in-group (Russians)							
Model 1	477.65*	54	.141 [.131; .151]	.104	.709	.644	17004
Model 2	133.45*	51	.064 [.053; .076]	.054	.943	.927	16546
Social out-group (Migrants from Central Asia)							
Model 1	480.35*	54	.142 [.133; .150]	.086	.749	.693	14820
Model 2	211.98*	51	.090 [.080; .099]	.066	.905	.877	14303
Model 2 modified	135.76*	49	.067 [.057; .077]	.057	.949	.931	14167
Intimacy out-group (friend's family)							
Model 1	428.38*	54	.133 [.124; .142]	.106	.760	.707	14868
Model 2	100.04*	51	.049 [.038; .061]	.050	.969	.959	14314

Note. Model 1 — one-factor model where all 12 items load one common factor (Figure 1b). Model 2 — three-factor model with three latent factors which are three subscales of entitativity (Figure 1a). df — degree of freedom. RMSEA — root mean square error of approximation; CFI — comparative fit index; TLI — Tucker Lewis index; SRMR — standardized root mean square residual; AIC — Akaike information criterion. * — $p < .001$.

The factorial invariance of the three-factor model of entitativity (with free two error covariances: unity-3/unity-4 and agency-2/agency-3) was tested by a multi-group CFA across the four groups. We evaluated the fit of a full invariant model. The results of model fit tests and a model comparison are summarized in Table 2. The fit of the configural invariance model (A) (equal structure) was good (RMSEA lower .08, CFI and TLI higher the benchmark of .930) suggesting an invariant three-factor solution of entitativity in all four types of group. The fit of the full metric invariance model (B) (equal factor loadings) was also good, but it was statistically worse than the configural invariance model (A) ($\Delta\chi^2 = 99.87$, $p < .001$, ΔCFI = .010). The fit of the full scalar invariance model (C) (equal factor loadings and intercepts) was unacceptable. Thus, the three-factor model of entitativity showed configural invariance across four types of groups. It means that entitativity has the same factor structure across four different groups, but it is not possible to compare entitativity groups' means.

In addition, we computed the scales' scores for each of the entitativity aspects. Cronbach's alphas were computed separately for each scale in all target groups: for the essence component from .73 to .89, for the agency component from .73 to .85, and for the unity component from .86 to .89 (see Table 3). These results suggest that three groups of items may be considered as three scales reflecting three aspects of entitativity and these scales have high internal consistency. The correlations between the aspects in all groups (see Table 3) confirm that components of entitativity are interrelated, but not identical to each other.

The results presented here allow us to outline the next steps to understanding the differences between the operationalizations of entitativity. Although our data suggests that different components are included in entitativity, little is indicated regarding their relationship to other psychological constructs.

Table 2

The fit of multi-group models of the three-factor model of the entitativity

Models	χ^2	df	RMSEA [90% CI]	CFI	TLI	AIC	Refer. model	$\Delta\chi^2$	df	ΔCFI
Model A (config.)	455.09**	196	.058 [.052; .064]	.960	.946	61024				
Model B (metric)	545.98**	223	.061 [.055; .066]	.950	.941	61378	A	99.87*	27	.010
Model C (scalar)	931.25**	250	.083 [.078; .088]	.895	.889	61538	B	508.20**	27	.055

Note. df — degree of freedom. RMSEA — root mean square error of approximation; CFI — comparative fit index; TLI — Tucker Lewis index; SRMR — standardized root mean square residual; AIC — Akaike information criterion. * — $p < .05$, ** – $p < .001$.

Figure 2

Hypothesized model of entitativity: A – intimacy in-group (family), B – social in-group (Russians), C – social out-group (Migrants from Central Asia), D – intimacy out-group (friend's family)

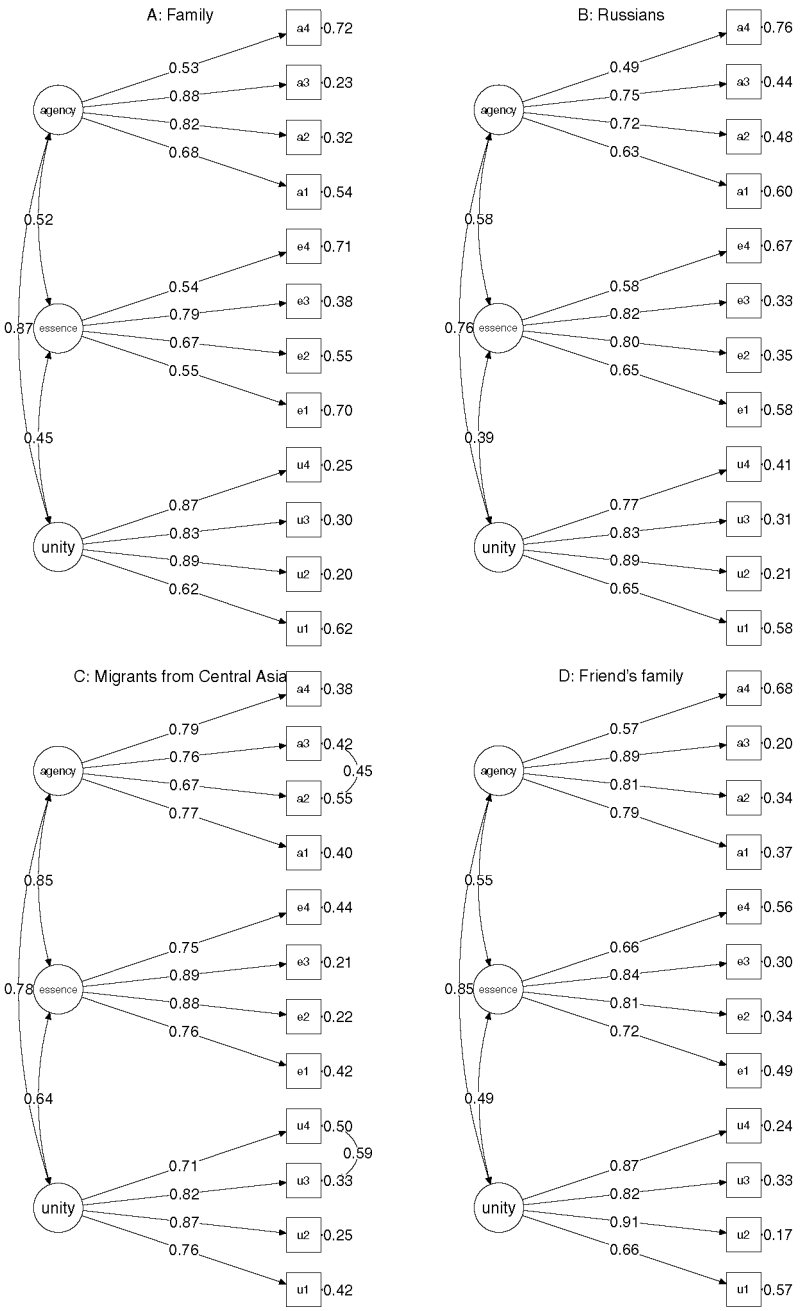


Table 3

Means, standard deviations and intercorrelations for entitativity components

	M	SD		1	2	3
Intimacy ingroup (family)						
1. Essence	3.71	1.22	.73	–		
2. Agency	4.40	1.38	.81	.45***	–	
3. Unity	4.80	1.43	.88	.39***	.74***	–
4. Entitativity (general)	4.30	1.12	.78	.71***	.89***	86***
Social ingroup (Russians)						
1. Essence	3.62	1.36	.80	–		
2. Agency	4.29	1.24	.73	.47***	–	
3. Unity	4.05	1.42	.86	.35***	.59***	–
4. Entitativity (general)	3.98	1.09	.75	.75***	.83***	.80***
Social outgroup (Migrants from Central Asia)						
1. Essence	4.59	1.31	.89	–		
2. Agency	4.57	1.23	.85	.68***	–	
3. Unity	4.73	1.31	.89	.54***	.62***	–
4. Entitativity (general)	4.63	1.13	.85	.86***	.88***	.82***
Intimacy outgroup (friend's family)						
1. Essence	4.26	1.24	.84	–		
2. Agency	4.86	1.19	.85	.50***	–	
3. Unity	5.02	1.25	.88	.40***	.70***	–
4. Entitativity (general)	4.71	1.03	.80	.76***	.87***	.84***

*** $p < 0.001$.

Study 2

In previous study we demonstrated that three components of entitativity empirically differ from each other, but are strongly connected with each other. The following question is whether the use of different understanding the entitativity leads to different results when testing the research hypotheses about entitativity. The authors showed that entitativity is connected with prejudice (Castano et al., 2002; Effron & Knowles, 2015; Gaertner & Schopler, 1998; Newheiser et al., 2009) and identification (Castano et al., 2002; Castano, Yzerbyt, et al., 2003; Crawford & Salaman, 2012; Hogg et al., 2007). We expected that if there weren't real differences between the approaches and measures of entitativity, prejudice and identification would be associated with entitativity regardless of the way of its operationalization. To test this hypothesis the entitativity, identification and prejudice toward ethnic group were evaluated in an independent additional sample. Because

ingroups and outgroups are evaluated differently (e.g. the outgroup and ingroup homogeneity effect) (Boldry, Gaertner, & Quinn, 2007; Judd, Park, Yzerbyt, Gordijn, & Muller, 2005) their entitativity was evaluated independently.

Method

Participants

Study participants were 193 Russians. The sample consisted of 22.3 % males (n=43) and 77.2 % females (n=149), one participant didn't specify their gender. Participants were between 14 and 68 years old, M_{age} = 26.47, SD_{age} = 12.48. Participants included 57 senior high school students, 133 respondents with higher education; three participants didn't specify their education.

Procedure and Materials

The data was collected using a Virtualexs system. Participation in the study was voluntary, anonymous and unpaid. Respondents had to fill in an electronic questionnaire including evaluation of an ingroup (Russian) and an outgroup (Migrants from Central Asia) entitativity, and ethnic prejudice.

Measures

Entitativity (essence properties, agency properties and unity properties) measurement was identical to those used in Study 1.

Prejudice towards Migrants from Central Asia was used the scale of blatant and subtle prejudice by Pettigrew and Meertens (Pettigrew & Meertens, 1995) in Russian adaptation (Gulevich, Sarieva, & Prusova, 2015). The questionnaire consisted of 26 statements that form five subscales: the perceived economic threat, the perceived physical threat, the avoidance of close contact, the perceived problems in adaptation, the exaggeration of cultural differences. All ratings were made on five-point Likert scale, ranging from 1 to 7 (1 – strongly disagree, 5 – strongly agree).

Ingroup identification. Evaluation of the ingroup identification with the group "Russian" was based on the Hierarchical (Multicomponent) Model of Ingroup Identification (Leach et al., 2008; Lovakov, Agadullina, & Osin, 2015). Fourteen items ("I have a lot in common with an average Russian", "I often think about the fact that I am Russian" and so on) were evaluated on 7-point Likert scale ranging from 1 to 7 (1 – absolutely disagree, 7 – absolutely agree).

Results and disscussion

As well as in the previous research all components of the ingroup and outgroup entitativity have high internal consistency and intercorrelations. The data shows that the components of entitativity and the common index of entitativity are connected with different scales in a similar manner. Table 4 shows that the different prejudice scales and the identification scale are connected with the entitativity components and the common index of entitativity. These results are consistent with the previous findings and provide additional evidence that the higher the identification with a group, the more entitativity of the group (Castano et al., 2002; Castano, Yzerbyt, et al., 2003;

Crawford & Salaman, 2012; Hogg et al., 2007). Furthermore, the more prejudice (for example as the perception of a threat from an outgroup), the more entitative of the group (Abelson et al., 1998; Dasgupta et al., 1999).

Table 4 also shows that the level of correlations between entitativity and other variables are approximately equal regardless of the way of measuring entitativity. These results mean that there are no substantial differences between

Table 4

Means, standard deviations and correlations between the entitativity components and different scales

	M	SD	α	Essence	Agency	Unity	Entitativity (general)
Ingroup entitativity (Russian)							
Essence	3.75	1.32	.74	–			
Agency	4.44	1.22	.85	.65**	–		
Unity	3.84	2.26	.76	.38**	.41**	–	
Entitativity (general)	3.89	1.31	.74	.89**	.87**	.86**	–
PET	3.34	.95	.84	.35**	.47**	.37**	.47**
PPT	2.70	1.01	.88	.31**	.43**	.39**	.44**
ACC	3.47	1.05	.89	−.19**	−.26**	−.18**	−.26**
PPA	3.34	.72	.70	.20**	.28**	.22**	.28**
ECD	1.89	.71	.85	−.12	−.03	−.05	−.09
Identification	4.77	1.24	.94	.49**	.53**	.30**	.38**
Outgroup entitativity (Migrants from Central Asia)							
Essence	3.97	1.41	.78	–			
Agency	3.98	1.57	.85	.68**	–		
Unity	4.01	1.25	.75	.62**	.64**	–	
Entitativity (general)	4.11	1.10	.89	.78**	.78**	.84**	-
PET	3.34	.95	.84	.52**	.64**	.49**	.64**
PPT	2.70	1.01	.88	.53**	.65**	.47**	.64**
ACC	3.47	1.05	.89	−.45**	−.57**	−.30**	−.51**
PPA	3.34	.72	.70	.37**	.51**	.40**	.49**
ECD	1.89	.71	.85	−.28**	−.14	−.19**	−.24**
Identification	4.77	1.24	.94	.38**	.37**	.28**	.48**

* $p < 0.05$, *** $p < 0.01$.

the various ways of understanding entitativity in terms of the results of hypothesis testing about the nomological network of entitativity.

General discussion and conclusion

This study focuses on the question of the differences in understanding group entitativity. The analysis of previous studies revealed that on a theoretical level the group entitativity can be described through various components and properties: "essence" (similarity of individuals in the group), "agency" (goals and group members' interaction) and "unity" (cohesion of the group and the degree of group importance). In empirical studies entitativity is more often measured by one of two models (the common scale of entitativity and three interconnected components of measurement). Our findings clearly indicate that the operationalization of entitativity as three interconnected components demonstrates the best fit across four different types of groups (intimacy ingroup, intimacy outgroup, social ingroup, and social outgroup). It was demonstrated that all components of entitativity are strongly connected with each other and the common index of entitativity in all group types. The correlations between components have repeatedly been indicated in different studies. For example, the authors show that the "essence" and "agency" components are interconnected (Brewer et al., 2004; Ip et al., 2006; Rutchick et al., 2008) and these results were confirmed in cross-cultural studies (Kashima et al., 2005; Kurebayashi et al., 2012). All these data supports the conclusion by Kashima and colleagues (Kashima et al., 2005) that entitativity is "not a coherent unitary psychological phenomenon, but a collection of diverse attributes of the psychological meaningfulness of a social entity" (p. 162). For researchers it means that it does not matter what leads to people's perception of a group's oneness: homogeneity, interaction or cohesion. Our results support this conclusion, because differences in the entitativity measurements don't lead to differences in relationship between entitativity and other variables, for example, prejudice and identification.

Taken together, these results have significant implications for future research. Firstly, the studies showed that different groups can attain their entitativity in different ways (Ip et al., 2006; Rutchick et al., 2008; Spencer-Rodgers, Williams, et al., 2007). The group members' similarity play an increasingly important role in the perception of social categories (such as gender or ethnic group), while the interaction of a group's members in the perception of the task groups (for example, the sports section) (Kurebayashi et al., 2012; Spencer-Rodgers, Hamilton, et al., 2007). Thus, we can say that it is not so important because perception of group similarity is connected to perception of group agency and unity. Kashima et al. (2005) confirmed this conclusion across eight different countries (Australia, UK, USA, Hong Kong, Japan, Korea, Belgium, and Germany). As a result, the scholars may consider the group as a complex psychological and social phenomenon taking into account the relationship between different components of the evaluation.

Second, our results indicate that using different entitativity measure-

ments in research does not lead to different results. We have a very similar correlation between entitativity measurements, identification, and prejudice (both in the case of an ingroup and an outgroup) in this study. It seems there are no substantial differences between the measurements of entitativity. This means that results regarding entitativity and its association with prejudice and identification could be combined in meta-analysis as comparable effect sizes.

The current study meets some limitations primarily related to the fact that results were obtained with only two types of groups (intimacy groups and social categories), while researchers distinguish four main group types (the others being task groups and loose association groups) (Lickel et al., 2000). Moreover, the research has been conducted on Russians, and cross-cultural studies are necessary to confirm our findings. Future research should address these limitations of the current study.

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Подходы к пониманию целостности группы: есть ли реальные различия?

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Резюме

Целостность – это ключевое понятие для понимания процессов восприятия социальной группы, однако вопрос его операционализации остается открытым. В литературе существует три теоретических подхода к пониманию целостности группы (целостность, основанная на восприятии подобия членов группы, целостность, основанная на восприятии взаимодействия членов группы, и целостность, основанная на восприятии единства членов группы) и как минимум два разных варианта операционализации данного понятия (либо оценка целостности группы в рамках конкретного теоретического подхода, либо использование общей шкалы целостности, включающей в себя утверждения из разных подходов). Основная цель данной статьи – понять, существуют ли различия между разными подходами к пониманию и операционализации целостности группы. В наших исследованиях целостность группы рассматривалась через три компонента: «подобие» (сходство членов группы), «взаимодействие» (взаимодействие членов группы) и «единство» (сплоченность группы). В исследовании 1 серия конфирматорных факторных анализов показала, что трехкомпонентная модель целостности группы показывает лучшее соответствие эмпирическим данным по сравнению с альтернативной моделью (целостность как единая шкала). Результаты исследования продемонстрировали, что компоненты целостности взаимосвязаны между собой, но не идентичны друг другу. Этот результат был подтвержден при оценке разных типов групп (ингруппа/аутгруппа, интимная группа/социальные категории). Исследование 2 показало, что способ операционализации целостности (как три отдельных компонента или как общая шкала) не приводит к различиям в связях между целостностью группы, явными и скрытыми предрассудками и идентификацией с группой. В целом результаты исследований продемонстрировали, что между различными способами операционализации целостности группы нет существенных различий. Полученные результаты обсуждаются с точки зрения их вклада в исследования восприятия социальных групп.

Ключевые слова: целостность, подобие, взаимодействие, единство, предубеждения, идентификация.

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