

Ethnic Prejudice: A Combined Personality and Social Psychology Model

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ABSTRACT - Previous research has examined prejudice from either a personality or a social psychology perspective. In the present study ($N = 182$), we combine these perspectives and examine whether ethnic prejudice is best explained by personality (Big-Five factors, social dominance orientation, and right-wing authoritarianism) or social psychology (ethnic group membership and identification) or by a combination of both approaches. Results from causal modeling and multiple regression analyses showed that prejudice was best explained by considering the combined influence of personality and social psychology constructs. The findings imply that it is necessary to combine various approaches to explain prejudice.

One point of disagreement in prejudice research is the question of whether prejudice is caused by personality or social psychological factors. The personality explanation holds factors within the individual as the major causes whereas the social psychology explanation links prejudice to factors like people's social group membership, social identity, and social position. Researchers from both camps make the implicit claim that prejudice is explained by either (and only) the one or the other discipline. As expressed by Hodson (2009), "Nowhere is the theoretical divide between person and situation more evident than the domain of prejudice research" (p. 247). The point of departure for this study is our basic assumption that both personality and social psychological variables are necessary for explaining prejudice. Thus, we examine the contribution of each approach as well as the two approaches combined by including relevant personality and social psychological variables in one and the same study.

The Personality Approach

Previous research has shown that right-wing authoritarianism (RWA) and social dominance orientation (SDO) account for a large variance portion of prejudice (e.g., Altemeyer, 1998; Ekehammar, Akrami, Gylje, & Zakrisson, 2004) and relate to different personality factors (e.g., Akrami & Ekehammar, 2006; Heaven & Bucci, 2001). According to Altemeyer (e.g., 1998), RWA consists of conventionalism, authoritarian submission, and authoritarian aggression. High-RWA people tend to be ethnocentric and to act aggressively toward outgroups. SDO is derived from social dominance theory (Sidanius & Pratto, 1999) and reflects whether people generally prefer intergroup relations to be hierarchical or equal (Pratto, Sidanius, Stallworth, & Malle, 1994). Thus,

high-SDO people tend to arrange social groups in a superior-inferior order. Previous research has shown that high-RWA as well as high-SDO people express prejudice toward various outgroups (e.g., Altemeyer, 1998; Ekehammar et al., 2004; Sidanius & Pratto, 1999). Because of the questionable personality status of RWA and SDO (see e.g., Sibley & Duckitt, 2008), recent personality-prejudice research has begun to focus on core personality variables, like the Big Five factors or facets (e.g., Ekehammar & Akrami, 2003, 2007). This line of research has found that the Big Five factors Agreeableness and Openness to Experience have a strong relation to prejudice (see Sibley & Duckitt, 2008) and that RWA and SDO mediate the relation between these personality factors and prejudice (Ekehammar et al., 2004). Using the terminology of Asendorpf and van Aken (2003), we consider SDO and RWA as reflecting *surface* personality and the Big Five factors *core* personality.

The Social Psychology Approach

Tajfel (1978) introduced social identity theory (SIT), according to which people categorize others because they are motivated to see the group they belong to as different from other groups. As group members, people seek to enhance their self-esteem by favoring the ingroup at the expense of the outgroup – resulting in negative outgroup bias and prejudice. Based on SIT, Turner, Hogg, Oakes, Reicher, and Wetherell (1987) arrived at self-categorization theory (SCT), which distinguishes between personal and social identity and argues that identity could shift from the one to the other (e.g., Abrams & Hogg, 2004). When social identity is salient and the self is categorized as a group member, the norms and interests of the specific group are activated and acted on. When personal identity is made salient, however, self-knowledge is activated and acted on (e.g., Onorato & Turner, 2004).

Within SIT and SCT, the part of the self that deals with social group membership is referred to as social identity. This would suggest that ingroup favoritism varies not only as a function of group membership per se but also as a function of people's identification with the ingroup (e.g., Tajfel & Turner, 1979). Thus, social group membership and social group identification are central in SIT and SCT and empirical research has supported that they often account for a large variance portion of prejudice (e.g., Guimond, Dambrun, Michinov, & Duarte, 2003).

Aim

Assuming that both the personality and the social psychological approaches are relevant in explaining ethnic prejudice, we combine them in the present study. To represent the personality approach, we use the Big Five factors Openness to Experience (denoted Openness in the following) and Agreeableness to represent core personality, and SDO and RWA to represent surface personality. We include social group membership and social group identification to represent the social psychology approach.

We apply causal modeling to examine the relations between our constructs to determine whether a model including both personality and social psychology constructs would give a better fit to the data compared to a single (either personality or social psychology) model. Building on McCrae and Costa's (2008) general framework, Ekehammar et al. (2004) suggested a causal model where Big Five personality affects

RWA and SDO, which in turn affect prejudice. They received empirical support for this model and the results were roughly the same when ethnic prejudice or an index of four prejudice types was used. We think that this model includes the most relevant personality constructs and could function as a solid part of a combined model where group membership and group identification are added as social psychological constructs.

In addition to causal modeling, we employed hierarchical regression analysis to estimate the contribution of each approach to explaining prejudice. As we distinguish between core and surface personality, we treated them in separate steps in our analyses with core traits always preceding surface traits. We regard a significant contribution of the main effect of only personality variables as support for the personality model and a main effect of only social psychology variables as support for the social psychology model. Further, we regard a significant contribution of the main effects of both the personality and the social psychology variables as support for a combined personality and social psychology model.

Method

Participants

The participants were 182 university students with a mean age of 23.3 years ($SD = 3.4$ years) at Stockholm South University College, 98 women (31 of immigrant origin) and 84 men (38 of immigrant origin). In line with Swedish official statistics, participants with immigrant origin were defined as those born outside Sweden or those with one or both parents born outside Sweden. The students represented various academic disciplines (but not psychology) and completed the questionnaire individually and anonymously. Participants received cinema vouchers for their participation.

Measures

Big Five Inventory (BFI). To measure the Big-Five factors, we used the BFI (see John & Srivastava, 1999) that consists of 44 items. The factors included in the present study were Openness (10 items; example: *Has a vivid imagination*) and Agreeableness (9 items; example: *Is forgiving*).

Social Dominance Orientation (SDO). The SDO₆ scale (Pratto et al., 1994) consists of 16 items that measure the level of social dominance orientation that a person displays. Item examples are *Some groups of people are just inferior to others* and *We would have fewer problems if we treated all groups equally* (reversed scoring).

Right Wing Authoritarianism (RWA). We used a recent version (15 items, Zakrisson, 2005) of the original RWA scale (see Altemeyer, 1998). Item examples are *Our country needs a powerful leader to overthrow the radical and immoral values that are present in today's society* and *It is better to accept bad literature than to censor it* (reversed scoring).

Ethnic prejudice. We measured ethnic prejudice by a scale constructed by Akrami, Ekehammar, and Araya (2000) for a Scandinavian context. The scale contains 9 items (example: *Discrimination against immigrants is no longer a problem in Sweden*).

Ethnic identification. We constructed a scale consisting of 7 items to assess participants' ethnic group identification. Participants were instructed to mark (on a 10 cm line) whether they felt closer to *immigrants* or *Swedes* in seven different domains

(attitudes, priorities, relations, life experience, occupational choice, interests, and ethnic identity). The responses were made on a visual analog scale where the left side of each line was anchored *Immigrants* (= 0) and the right side *Swedes* (= 10). Wilson and Liu (2003) have used a similar scale construction for measuring gender identity.

Participants responded to the Big Five items on a 5-step Likert scale ranging from *Is absolutely not true* (1) to *Is absolutely true* (5) and to the RWA, SDO, and prejudice scale items on a 5-step scale ranging from *Do not agree at all* (1) to *Agree fully* (5).

Results

Descriptive Statistics and Relations Among Variables

We calculated Cronbach Alpha reliability coefficients and correlation coefficients among the variables included in the study (Table 1). The reliabilities were satisfactory and varied between .70 and .92. There were significant relations of ethnic prejudice with SDO, RWA, Openness, and ethnic identification. However, there was no significant relation between ethnic prejudice and ethnic membership. This could be a result of the definition employed when assigning participants to the Swedish or the immigrant group (see Method). On the other hand, ethnic membership was highly correlated with ethnic identification, which in turn was significantly correlated with ethnic prejudice (see Table 1). Otherwise, the correlations were in line with those of previous research (e.g., Ekehammar et al., 2004).

Table 1
Basic Statistics and Correlations Among Variables

Scale/Variable	Correlations							<i>M</i>	<i>SD</i>	α
	1	2	3	4	5	6	7			
1. Openness ¹	–							3.56	0.66	.79
2. Agreeableness ¹	.08	–						3.70	0.53	.70
3. Right Wing Authoritarianism ¹	-.19	.02	–					2.26	0.61	.80
4. Social Dominance Orientation ¹	-.12	-.31	.38	–				1.81	0.61	.86
5. Ethnic membership ²	.01	.13	-.32	-.04	–			0.49	0.50	–
6. Ethnic Identification ³	.01	.10	-.15	.06	.50	–		5.85	2.09	.92
7. Ethnic Prejudice ¹	-.17	-.08	.34	.56	.07	.22	–	1.81	0.62	.77

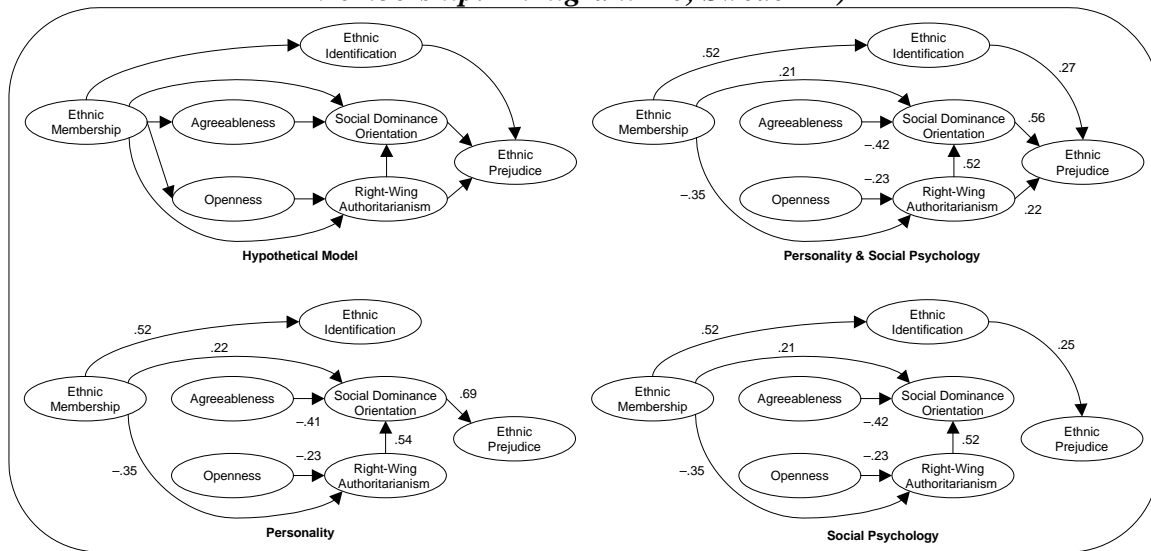
Note. Correlations in **boldface** are significant at $p < .05$, at least. ¹Scale responses range from 1 to 5 with higher scores indicating more of the variable. ²Immigrant = 0, Swede = 1. ³Scale responses range from 0 to 10 with higher scores indicating identification with Swedes.

Causal Modeling

The causal analyses were based on the general hypothetical model depicted in Figure 1, where the basic assumptions are that ethnic membership affects core personality factors, which affect the surface personality factors, which in turn affect ethnic prejudice. We also included a path from ethnic membership to RWA and SDO to account for ethnic group differences in these variables. In addition, we included a path from ethnic membership to ethnic identification and from ethnic identification to ethnic prejudice to account for the social psychological explanation of ethnic prejudice. This would represent

the *combined* personality and social psychology model. This model competed with the *social psychology* model, where we excluded the paths from RWA and SDO to ethnic prejudice, and with the *personality* model, where we excluded the path from ethnic identification to ethnic prejudice.

Figure 1
Causal models of personality and/or social psychology constructs explaining ethnic prejudice. All path coefficients are statistically significant at $p < .05$ at least (Ethnic Membership: Immigrant = 0, Swede = 1)



The models were examined using LISREL 8.30 (Jöreskog & Sörbom, 1993) with maximum likelihood estimation of the covariance matrix. Within each measurement model, one manifest variable was assigned to one latent variable. As the reliabilities of the manifest variables affect the parameters in the model, the error variances of the manifest variables were fixed and calculated using the Alpha reliability estimates in Table 1 (see Jöreskog, & Sörbom, 1993, pp. 37-38). This procedure allows an analysis of the linear structural relations among the latent rather than the manifest variables. To simplify the presentation of the models, the manifest variables are not depicted in the figures. Model fit was determined by examining χ^2 , the Standardized Root Mean Square Residual ($SRMR \leq 0.08$ indicating good fit) and the Root Mean Square Error of Approximation ($RMSEA \leq 0.06$ indicating good fit) to simplify comparison between models (Shumacker & Lomax, 1996).

The *combined* personality and social psychology model (our hypothetical model) showed a good fit to the data [$\chi^2(9, N = 182) = 7, p = .61, SRMR = .033, RMSEA = .000$]. The results indicated that the *personality* [$\chi^2(11, N = 182) = 23, p < .05, SRMR = .061, RMSEA = .079$] and *social psychology* [$\chi^2(11, N = 182) = 68, p < .001, SRMR = .140, RMSEA = .169$] models did not fit the data as well as the combined model. Also, the combined personality and social psychology model showed a significantly better fit to the data than either the personality, $\Delta\chi^2(2, N = 182) = 16, p < .001$, or the social

psychology model, $\Delta\chi^2(2, N = 182) = 61, p < .001$. The personality and the social psychology model had the same number of degrees of freedom and could not be compared by significance testing but the fit indices showed a better fit for the personality model (see Figure 1 for the final models and standardized path coefficients).

Hierarchical Multiple Regression Analyses

In the first model, we entered the social psychology variable(s) in the first, core personality variables in the second, surface personality variables in the third, and the interactions between the personality and the social psychology variables in the fourth step. In the second model, we reversed the order of steps for the personality and social psychology variables whereas the interactions were introduced in the final step as above. The results of the analyses showed that the personality and the social psychology variables together explained 41% of the total variance in ethnic prejudice. Both the personality and the social psychology blocks of variables provided significant contributions to explaining ethnic prejudice and within the personality block, both the core and surface personality factors contributed significantly (see Table 2). Regardless of the order in which they were entered into the regression equation, the personality variables explained 34 to 35% whereas the social psychology approach explained 4 to 5% of the variance in prejudice. There were no significant interaction effects.

Table 2
Summaries of Hierarchical Regression Analyses Using Ethnic Prejudice as Dependent Variable and Personality and Social Psychology Variables and Their Interactions as Independent Variables

Model	Step	Independent variable (β)	ΔR^2	Total R^2
1	I	Ethnic Membership (-.06) & Ethnic Identification (.26)	.05	
	II	Openness (-.17) Agreeableness (-.09)	.04	
	III	SDO (.49) & RWA (.19)	.30	
	IV	Interactions [Ethnic Membership \times Openness (-.09), Agreeableness (-.21), SDO (.21), and RWA (.37); Ethnic Identification \times Openness (-.18), Agreeableness (.12), SDO (-.22), and RWA (-.13)]	.02	.41
2	I	Openness (-.17) & Agreeableness (-.07)	.04	
	II	SDO (.53) & RWA (.12)	.32	
	III	Ethnic Membership (.04) & Ethnic Identification (.20)	.04	
	IV	Interactions (The same interactions and β s as above)	.02	.41

Note. Coefficients in **boldface** are significant at $p < .05$, at least.

Discussion

Our major aim was to examine some important personality and social psychology constructs in one and the same study to see if both blocks of constructs contributed to explaining ethnic prejudice. Thus, we suggested three causal models, (1) a personality (Big Five, RWA, and SDO), (2) a social psychological (social group membership and social group identification) and (3) a combined personality and social psychology model (including all five variables), which was our hypothetical model. Also, we employed hierarchical regression analysis where the personality and the social psychology variables

were entered in an interchanged order. The results supported our assumption that ethnic prejudice is best explained by the combined personality and social psychology model. The causal analyses showed that the combined model was superior to the personality-only and social-psychology-only models. The regression analyses showed that the variables within each block made statistically significant contributions regardless of whether they were entered in the first or second step in the regression models. The interactions between the personality and social psychology variables were not significant (see also Meeus, Duriez, Vanbeselaere, Phalet, & Kuppens, 2009) which implies that differences in personality do not seem to play a more important role for members of one social group than for members of another group (but see Guimond et al., 2003).

From a personality perspective, our findings are in line with previous results on the relation of Big Five personality with SDO and RWA (e.g., Akrami & Ekehammar, 2006; Duriez & Soenens, 2006; Heaven & Bucci, 2001). The correlations of RWA and SDO with prejudice, and of RWA with SDO, were also in concert with previous empirical results (e.g., Ekehammar et al., 2004). These findings, together with those from the hierarchical regression and causal analyses, support the view that personality is a necessary component in explaining prejudice. In fact, our results suggest that personality explains the larger share when it comes to ethnic prejudice. However, these conclusions are confined to the present sample and our choice of variables. Although this choice was based on a thorough examination of personality and social psychology theory and research, adding or omitting variables could certainly change the relative importance of the personality and the social psychology factors. However, we think that our results make it really difficult to discard personality explanations of prejudice as suggested by advocates of SIT and SCT (see Introduction). From these perspectives, Reynolds, Turner, Haslam, and Ryan (2001, p. 433) stated that "...it may be misleading and inappropriate to locate *explanations* of prejudice at the level of individual personality" and Kreindler (2005, p. 104) concluded that "...although it is readily apparent that people differ in their expression of prejudice, the determination to explain this in terms of underlying dispositions may be an impediment to progress." Here, we agree with Hodson (2009, p. 247) that "resistance to personality in prejudice research is arguably more strident and ideological than in most areas of psychology."

Some limitations of our research have to be considered as well. For example, the results are based on a limited number of participants and replications are needed, especially as we employed causal modeling with many variables. Also, the optimal way to assess causal relations is to conduct longitudinal studies, which was not the case here. Further, we used the Big Five Inventory to assess participants' personality characteristics. This inventory has been shown to have good psychometric properties (John & Srivastava, 1999) but it seems that a short scale is not sufficient to assess the Big Five at the broad factor level. This is a highly possible reason for the low correlations obtained here between the personality factors and the other variables as compared to our previous studies (e.g., Akrami & Ekehammar, 2006; Ekehammar & Akrami, 2007), where we used the 240-item NEO-PI-R (Costa & McCrae, 1992).

Apart from group membership and group identification, research within the social psychological tradition has focused on contextual factors in explaining prejudice, like social norms (e.g., Crandall, Eshleman, & O'Brien, 2002) and social threat (Duckitt &

Fisher, 2003). Thus, further research along the lines we have suggested here should attempt to include this type of contextual social psychology aspects. In fact, we have already started such research and results from these studies confirm the main picture reported here (Akrami, Ekehammar, Bergh, Dahlstrand, & Malmsten, 2009). Finally, two studies just finished and parallel to the present one but focusing on sexism (Akrami, Ekehammar, & Yang-Wallentin, 2009) gave essentially the same outcome as in the present study.

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References

- Abrams, D., & Hogg, M. A. (2004). Metatheory: Lessons from social identity research. *Personality and Social Psychology Review*, 8, 98-106.
- Akrami, N., & Ekehammar, B. (2006). Right-wing authoritarianism and social dominance orientation: Their roots in Big-Five personality factors and facets. *Journal of Individual Differences*, 27, 117-126.
- Akrami, N., Ekehammar, B., & Araya, T. (2000). Classical and modern racial prejudice: A study of attitudes toward immigrants in Sweden. *European Journal of Social Psychology*, 30, 521-532.
- Akrami, N., Ekehammar, B., Bergh, R., Dahlstrand, E., & Malmsten, S. (2009). Prejudice: The person in the situation. *Journal of Research in Personality*, 43, 890-897.
- Akrami, N., Ekehammar, B., & Yang-Wallentin, F. (2009). *Personality and social psychology factors explaining sexism*. Manuscript submitted for publication.
- Altemeyer, B. (1998). The other "authoritarian personality." In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 30, pp. 47-92). Orlando, FL: Academic Press.
- Asendorpf, J. B., & van Aken, M. A. G. (2003). Personality-relationship transaction in adolescence: Core versus surface personality characteristics. *Journal of Personality*, 71, 629-666.
- Costa, P. T. Jr., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO PI-R) and NEO Five Inventory (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources.
- Crandall, C. S., Eshleman, A., & O'Brien, L. T. (2002). Social norms and the expression and suppression of prejudice: The struggle for internalization. *Journal of Personality and Social Psychology*, 82, 359-378.
- Duckitt, J., & Fisher, K. (2003). The impact of social threat on worldview and ideological attitudes. *Political Psychology*, 24, 199-222.
- Duriez, B., & Soenens, B. (2006). Personality, identity styles, and authoritarianism: An integrative study among late adolescents. *European Journal of Personality*, 20, 397-417.

- Ekehammar, B., & Akrami, N. (2003). The relation between personality and prejudice: A variable- and a person-centred approach. *European Journal of Personality*, *17*, 449-464.
- Ekehammar, B., & Akrami, N. (2007). Personality and prejudice: From Big Five personality factors to facets. *Journal of Personality*, *75*, 899-926.
- Ekehammar, B., Akrami, N., Gylje, M., & Zakrisson, I. (2004). What matters most to prejudice: Big Five personality, social dominance orientation or right-wing authoritarianism? *European Journal of Personality*, *18*, 463-482.
- Guimond, S., Dambrun, M., Michinov, N., & Duarte, S. (2003). Does social dominance generate prejudice? Integrating individual and contextual determinants of intergroup cognitions. *Journal of Personality and Social Psychology*, *84*, 697-721
- Heaven, P. C. L., & Bucci, S. (2001). Right-wing authoritarianism, social dominance orientation and personality: An analysis using the IPIP measure. *European Journal of Personality*, *15*, 49-56.
- Hodson, G. (2009). The puzzling person-situation schism in prejudice research. *Journal of Research in Personality*, *43*, 247-248.
- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102-138). New York: Guilford.
- Jöreskog, K., & Sörbom, D. (1993). LISREL 8: *Structural equation models with the SIMPLIS command language*. Chicago: Scientific Software International.
- Kreindler, S. A. (2005). A dual group processes model of individual differences in prejudice. *Personality and Social Psychology Review*, *9*, 90-107.
- McCrae, R. R., & Costa, P. T., Jr. (2008). The five-factor theory of personality. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (3rd ed., pp. 159-181). New York: Guilford.
- Meeus, J., Duriez, N., Vanbeselaere, N., Phalet, K., & Kuppens, P. (2009). Examining dispositional and situational effects on outgroup attitudes. *European Journal of Personality*, *23*, 307-328.
- Onorato, R. S. & Turner, J. C. (2004). Fluidity in the self-concept: The shift from personal to social identity. *European Journal of Social Psychology*, *34*, 257-278.
- Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, *72*, 741-763.
- Reynolds, K. J., Turner, J. C., Haslam, S. A., & Ryan, M. K. (2001). The role of personality and group factors in explaining prejudice. *Journal of Experimental Social Psychology*, *37*, 427-434.
- Shumacker, R., & Lomax, R. (1996). *A beginner's guide to structural equation modeling*. Mahwah, NJ: Erlbaum.
- Sibley, C. G., & Duckitt, J. (2008). Personality and prejudice: A meta-analysis and theoretical review. *Personality and Social Psychology Review*, *12*, 248-279.
- Sidanius, J., & Pratto, F. (1999). *Social dominance: An intergroup theory of social hierarchy and oppression*. New York: Cambridge University Press.

- Tajfel, H. (1978). Social categorization, social identity and social comparison. In H. Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. 61-67). London: Academic Press.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Pacific Grove, CA: Brooks/Cole.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford: Blackwell.
- Wilson, M. S., & Liu, J. H. (2003). Social dominance orientation and gender: The moderating role of gender identity. *British Journal of Social Psychology*, *42*, 187-198.
- Zakrisson, I. (2005). Construction of a short version of the Right-Wing Authoritarianism (RWA) scale. *Personality and Individual Differences*, *39*, 863-872.