

# The Social Costs of Extrinsic Relative to Intrinsic Goal Pursuits: Their Relation With Social Dominance and Racial and Ethnic Prejudice

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**ABSTRACT** Self-determination theory's distinction between extrinsic and intrinsic goal pursuits offers a possible explanation for ethnic and racial prejudice. Because extrinsic relative to intrinsic goal pursuits (E/I) stimulate interpersonal competition, they were expected to predict social dominance orientation (SDO), which, in turn, would predict racial and ethnic prejudice. Results of a first cross-sectional study showed that E/I goal pursuits are positively associated with prejudice and that SDO partially mediates this association. In a second longitudinal study, we replicated these results. In addition, however, we found evidence for a reciprocal relationship between E/I goal pursuit and SDO. Moreover, both E/I goal pursuit and SDO had an independent effect on increases in prejudice. Implications of these findings are discussed.

Research shows that racial and ethnic prejudice is prominent in many European countries (Vala, Lima, & Lopes, 2004). In Flanders

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(Belgium), 38% of the respondents of representative surveys between 1991 and 1999 expressed negative attitudes towards foreigners (Coffé, Billiet, & Cambré, 2002). Even though racial and ethnic prejudice did not increase between 1991 and 1999, during this period, extreme right-wing political parties gained considerable following in Europe in general and in Flanders in particular (Coffé et al., 2002; Hainsworth, 2000), and racial and ethnic prejudice was found to be the most important determinant of voting for an extreme right-wing party (Lubbers, Gijsberts, & Scheepers, 2004). In addition, racial and ethnic prejudice is a highly important social phenomenon because it affects public discourse, intergroup relations, and the identities of all involved (Eberhardt & Fiske, 1998). Because ethnic prejudice has important consequences for the lives of individuals, groups, and the larger community and is clearly present in contemporary society, it is important to explore its antecedents. One possible candidate, offered by Self-Determination Theory (Ryan & Deci, 2000), is the type of values people hold, that is, extrinsic versus intrinsic, and the goals they pursue.

#### *Personal Costs of Extrinsic Versus Intrinsic Goal Pursuits*

Self-determination theory discerns intrinsic goals, such as self-development, affiliation, and community contribution from extrinsic goals, such as financial success, physical attractiveness, and social popularity (e.g., Kasser & Ryan, 1993, 1996). Intrinsic goals reflect people's inherent growth tendencies and should be inherently satisfying to pursue (Deci & Ryan, 2000). In contrast, extrinsic goals yield an outward orientation: people who pursue extrinsic goals are more likely to lose the connection with their intrinsic wishes and motives because they tend to hang their endeavors upon the attainment of external signs of success. Because they are highly concerned with the opinion of others, extrinsically oriented individuals are both more likely to engage in stressful interpersonal comparisons (Patrick, Neighbors, & Knee, 2004) and to have a contingent sense of self-esteem (Kernis, 2003), both of which undermine people's well-being (Ryan & Deci, 2004). Furthermore, whereas an intrinsic goal pursuit is consistent with the satisfaction of basic needs for autonomy, competence, and relatedness, an extrinsic goal pursuit tends to be unrelated or even negatively related to it (Vansteenkiste, Neyrinck, et al., in press), which explains why intrinsic and extrinsic goal

pursuits relate differentially to well-being. Various studies documented evidence for this: the pursuit of extrinsic rather than intrinsic goals was found to relate positively to ill-being, as indexed by anxiety and depression, and negatively to well-being, as indexed by vitality, self-actualization, life satisfaction, and socially adaptive functioning (Sheldon, Ryan, Deci, & Kasser, 2004). Recently, an extrinsic relative to intrinsic goal pursuit was also found to predict poorer academic functioning, as indexed by depth of information processing, achievement and persistence (Vansteenkiste, Lens, & Deci, 2006). In short, an extrinsic rather than intrinsic goal pursuit appears associated with lower well-being and less optimal personal functioning.

### *Social Costs of Extrinsic Versus Intrinsic Goal Pursuits*

Previous studies have also shown that extrinsic versus intrinsic goal pursuits are associated with a number of social and societal costs. For instance, Brown and Kasser (2005) found an extrinsic goal pursuit to negatively predict pro-ecological engagement, and Kasser and Ryan (2001) reported that extrinsically oriented individuals experience their love relations and friendships as more conflicting and less happy and trustful. Several factors probably contribute to the latter phenomena. First, extrinsically oriented individuals place less emphasis on values such as affiliation (Kasser & Ryan, 1993) and benevolence (Schwartz, 1992). Second, extrinsically oriented individuals report being less empathic (Sheldon & Kasser, 1995), agree more often that they use their friends to get ahead in life (Khanna & Kasser, 2004), and score higher on Machiavellism (McHoskey, 1999). Furthermore, they are more likely to compete rather than cooperate with friends when common resources are scarce (Sheldon, Sheldon, & Osbaldiston, 2000). These findings suggest that extrinsically oriented individuals are more likely to objectify others and to use them as efficiently as possible to attain their own extrinsic goal ambitions (Kasser, 2002). Conversely, as intrinsically oriented individuals are concerned with both their personal growth and the welfare of others, they are more likely to take the perspective of others and to develop trustful relationships (Kasser, 2002). Rather than treating others as objects, they would be genuinely interested in other people as individuals, which would lead them to display less discriminatory behavior towards minority groups. Together, these underlying dynamics lead us to predict that an extrinsic relative to

intrinsic goal pursuit (E/I) will be positively related to racial and ethnic prejudice. In addition to examining this, we will also investigate the role of Social Dominance Orientation (SDO) as a possible mechanism through which E/I goal pursuits carry over into ethnic and racial prejudice.

### *Social Dominance Orientation (SDO)*

Two research lines have dominated the quest for the antecedents of (racial and ethnic) prejudice. The first has viewed prejudice as resulting from group processes (e.g., Tajfel & Turner, 1979). The second has regarded it as a result of dispositional factors making people more or less likely to adopt prejudice. Within the latter tradition, Pratto, Sidanius, Stallworth, and Malle (1994) introduced the Social Dominance Orientation (SDO). SDO is considered to be an attitudinal orientation towards intergroup relations that reflects whether one generally prefers intergroup relations to be hierarchical. People high on SDO would favor hierarchy-enhancing ideologies and policies and would take up societal positions that maintain or increase social inequality. In contrast, people low in SDO, would prefer equality-enhancing ideologies and policies and would take up social positions aimed at reducing inequality. In line with this, SDO has been shown to be an important—if not the most important—dispositional variable in the explanation of multiple forms of prejudice, including homophobia, sexism, and racial and ethnic prejudice (Altemeyer, 1998). In spite of this, few studies to date have examined which factors make individuals prone to adopt SDO. In this respect, research shows that SDO is rooted in self-enhancement values (Duriez & Van Hiel, 2002; Duriez, Van Hiel, & Kossowska, 2005), lack of empathy (Duriez, 2004), lack of both openness to experience and agreeableness (Duriez & Soenens, 2006), tough-mindedness and a view of the world as a competitive jungle characterized by a ruthless struggle for limited resources (Duckitt, Wagner, du Plessis, & Birum, 2002), and a need for cognitive simplification (Van Hiel, Duriez, & Pandelaere, 2004). These findings suggest that SDO should be regarded as a value-based set of generalized beliefs rather than as a core personality characteristic. Therefore, compatible with the reasoning that values (i.e., desirable end states that transcend objects and situations) guide attitude the formation of attitudes (i.e., organizations of beliefs around objects or situations)

(Rokeach, 1968), theoretically speaking, goal pursuits need to be modeled as antecedents of SDO.

### *Extrinsic Versus Intrinsic Goal Pursuits and SDO*

Extrinsic relative to intrinsic goal pursuits are said to serve an instrumental function because they represent a route to self-worth and superiority (Kasser, 2002). In their attempt to achieve their extrinsic goal ambitions, extrinsically oriented individuals are likely to engage in interpersonal comparison and to try to outperform others in gathering materialist goods (Vansteenkiste, Simons, Lens, Soenens, Matos, & Lacante, 2004). Such a performance orientation is likely to give rise to a view of the social world as a competitive jungle characterized by a ruthless struggle for resources and power in which only the fit succeed. People with an intrinsic goal orientation, in contrast, are driven by a genuine interest in developing positive affiliations with others and by a willingness to help people in need (i.e., community contribution; Kasser, 2002). Consequently, they are less likely to view others as objects that need to be manipulated in order to maximize one's personal benefits. In short, people with an extrinsic rather than an intrinsic goal orientation can be expected to endorse a competitive jungle worldview. Because research (Duckitt et al., 2002) has shown that such a "dog-eat-dog" worldview activates SDO, we expect extrinsic versus intrinsic goal pursuits to predict SDO. Additionally, Duckitt et al. (2002) found the tough-mindedness versus tender-mindedness personality dimension, which is characterized by the traits of being tough, ruthless, and unfeeling to others, as opposed to compassionate, caring, and altruistic, and which shares considerable overlap with Kasser's (2002) description of extrinsically versus intrinsically oriented individuals, to predict SDO. Furthermore, extrinsic versus intrinsic goal pursuits have been found to positively predict Machiavellianism (McHoskey, 1999), which shares considerable overlap with the SDO concept. In sum, because an extrinsic rather than intrinsic goal pursuit can be expected to give rise to a view of the world as a competitive jungle, and because such view would arouse SDO, extrinsically oriented individuals can be expected to adopt SDO, which in turn would predict prejudice.

On the basis of self-determination theory and the more general point of view that values guide the formation of attitudes (Rokeach,

1968), we primarily consider E/I goal pursuit as predictor of SDO rather than the other way around. It should be noted, however, that SDO might also influence goal pursuit. Given that high-SDO people want to attain, maintain, or even further increase their socially dominant position, it might be instrumental for them to focus on extrinsic rather than intrinsic goals to reach these aims. This E/I goal pursuit would then, in turn, predict prejudice. It is, of course, also possible that both perspectives are valid and that E/I goal pursuit and SDO form a mutually reinforcing constellation of motivations and attitudes that stand in the service of one another and independently predict ethnic prejudice over time. To examine the direction of effects involved in associations between E/I goal pursuit, SDO, and prejudice, we adopted a longitudinal research design in Study 2.

### *Present Research*

The primary goal is to examine the relationship between E/I goal pursuit, SDO, and racial and ethnic prejudice. We hypothesized that E/I goal pursuit would relate to prejudice through the effect of SDO. To test this hypothesis, two studies were conducted. In Study 1, we provide a cross-sectional test of the mediating role of SDO in the E/I goal pursuit–prejudice link. The aim of the second, longitudinal study was threefold. First, we aimed to replicate the hypothesized cross-sectional model, using a measure of ethnic prejudice (i.e., prejudice based on ethnic background) instead of racial prejudice (i.e., prejudice based on race) in order to broaden the scope of our study. Second, we examined the hypothesized unidirectional sequence of events assuming that goal pursuit would predict over-time changes in SDO and ethnic prejudice and that the effects of goal pursuit on changes in ethnic prejudice, if any, are mediated by the effects of goal pursuit on changes in SDO. Third, the longitudinal design of Study 2 also allowed us to examine the validity of this unidirectional model by comparing it to models involving other directions of effects. Using cross-lagged analyses (Burkholder & Harlow, 2003), we not only examined whether goal pursuit predicts over-time changes in SDO and prejudice but also whether SDO and prejudice predict over-time changes in goal pursuit or whether reciprocal effects exist, with goal pursuit, SDO, and ethnic prejudice mutually influencing each other.

## STUDY 1

Middle to late adolescents (17–18 year olds) were asked to indicate to what extent they attach importance to intrinsic and extrinsic goals. Two hypotheses are tested. First, because extrinsically versus intrinsically oriented individuals are less likely to adopt a cooperative attitude and are more likely to consider others as instruments towards the attainment of self-centered, materialistic goals, we predict that participants who organize their lives around extrinsic rather than intrinsic goal pursuits are more likely to display racist attitudes. Second, because adopting SDO is likely to enable one to attain one's extrinsic ideals, we predicted SDO to mediate the effect of goal pursuit on racial prejudice.

### Method

#### *Participants*

Participants were high-school students following an academic track ( $N = 474$ ), an arts education ( $N = 223$ ), or a technical education ( $N = 232$ ) who were recruited in various secondary schools ( $N = 27$ ) in the Flemish-speaking part of Belgium and who took part during regular school hours (Mean age = 17.6; 42% male). All participants were born in Belgium, had Belgian nationality, and had parents of Belgian nationality. All belonged to the Flemish majority. Participants with over three missing values on any of the scales included in the questionnaire were excluded from further analyses. In total, 22 participants needed to be removed, reducing  $N$  to 907.

#### *Measures*

Five-point, Likert-scale items anchored by *Completely disagree* and *Completely agree* were used for all measures. Participants filled out an 18-item Aspiration Index (Kasser & Ryan, 1996, translated by Vansteenkiste, Duriez, Simons, & Soenens, in press) assessing the importance placed on extrinsic and intrinsic values. Each subscale was measured with three items. Participants recorded to what extent they attached importance to the extrinsic values of financial success (e.g., "It is important for me to have many expensive possessions"; Cronbach's alpha = .84), image (e.g., "It is important for me to achieve the 'good look' that I am searching for"; Cronbach's alpha = .70) and fame (e.g., "It is important for me to be admired by other people"; Cronbach's alpha = .75), and to the intrinsic values of growth (e.g., "It is important for me to develop myself and to

learn new things”; Cronbach’s  $\alpha = .72$ ), community contribution (e.g., “It is important for me to help people in need”; Cronbach’s  $\alpha = .80$ ) and affiliation (e.g., “It is important for me to express my love for special people”; Cronbach’s  $\alpha = .80$ ). As in various other value studies (e.g., Schwartz & Huismans, 1995), in order to control for systematic response sets, an individual’s overall mean score was subtracted from each individual score. A second-order exploratory factor analysis was then conducted on the six subscales. The scree plot pointed to a one-factor solution, explaining 46% of the variance. Each intrinsic value had a minimal positive loading of .60, and each extrinsic value had a minimal negative loading of  $-.60$  on this factor. Subsequently, the intrinsic items were reversed and an overall extrinsic versus intrinsic (E/I) value score was computed by averaging the extrinsic and the (reversed) intrinsic scales (Cronbach’s  $\alpha = .83$ ; Mean =  $-1.13$ ;  $SD = 0.84$ ). A positive score indicates a tendency to attach importance to extrinsic rather than to intrinsic values. A negative score indicates a tendency to prefer intrinsic rather than to extrinsic values.

Participants also completed a 14-item SDO scale (Pratto et al., 1994, translated by Van Hiel & Duriez, 2002; e.g., “It’s sometimes necessary to step on others to get ahead in life”) and a six-item racial prejudice scale (Billiet & De Witte, 1995; e.g., “We have to keep our race pure and fight mixture with other races”). After reversing negatively worded items, scores were computed by averaging the items for SDO ( $\alpha = .86$ ; Mean =  $2.34$ ;  $SD = 0.65$ ) and racial prejudice ( $\alpha = .85$ ; Mean =  $1.84$ ;  $SD = 0.77$ ).

## Results and Brief Discussion

### *Preliminary Analyses*

In line with previous research (Altemeyer, 1998; Vansteenkiste, Duriez, et al., in press), independent  $t$ -tests indicated that men scored higher than women on both E/I [ $t(905) = 5.39, p < .001$ ], SDO [ $t(905) = 7.44, p < .001$ ] and racial prejudice [ $t(905) = 4.35, p < .001$ ]. In addition, in line with previous research (Sidanius, Pratto, Martin, & Stallworth, 1991; Vansteenkiste, Duriez, et al., in press), univariate ANOVA analyses indicated that educational groups differed significantly with respect to E/I [ $F(2, 904) = 7.05, p < .01$ ], and racial prejudice [ $F(2, 904) = 6.01, p < .01$ ] but not with respect to SDO. Post-hoc Tukey comparisons further explored these differences. Technical students scored higher on E/I and racial prejudice than arts students. Academic track students scored in between, and no significant differences were found with either arts or technical



students. Correlation analyses showed significantly positive correlations between all measures ( $p < .001$ ): E/I correlated .44 with SDO and .45 with racial prejudice, and SDO and racial prejudice correlated .58. In sum, the necessary conditions for the specified structural model were fulfilled. The analyses are reported in the next section. Given the gender and education differences, these variables were used as control variables. For this purpose, two dummy variables were created. The first dummy contrasts academic track and liberal arts students to technical students. The second contrasts academic track and technical students to arts students.

### *Primary Analyses*

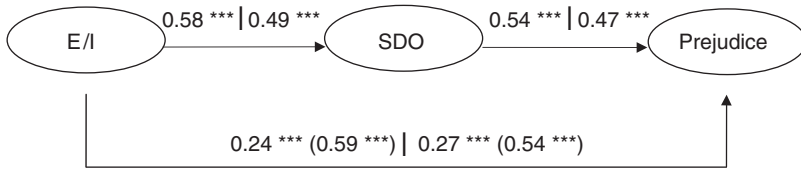
To adjust for measurement error, structural equation modeling with latent variables (Bollen, 1989) was performed using Lisrel 8.54 (Jöreskog & Sörbom, 1996a). This requires multiple indicators for each construct. Instead of using separate items as indicators, we randomly created three parcels of items for SDO and racial prejudice and three parcels containing one extrinsic and one (reversed) intrinsic scale and used these as indicators. According to Marsh, Hau, Balla, and Grayson (1998), parcels are (a) likely to have a stronger relation to the latent factor, (b) less likely to be influenced by method effects, and (c) more likely to meet normality assumptions. Factor reliability is unaffected by the use of parcels because the same items are used to form the latent factor. For each latent variable, the unstandardized loading of the indicator with the highest loading was set to 1 (Byrne, 2001). In spite of this, data screening using Prelis 2.54 (Jöreskog & Sörbom, 1996b) indicated data nonnormality. Therefore, in all analyses, the asymptotic covariances matrix among the parcels was used as input.

To evaluate model fit, we inspected the Satorra-Bentler Scaled chi-square (SBS- $\chi^2$ , Satorra & Bentler, 1994) instead of the regular chi-square because the former corrects for data nonnormality. An SBS- $\chi^2$  to degree of freedom ratio (SBS- $\chi^2$ /df) close to 3.0 indicates good model fit (Kline, 1998). To further evaluate model fit, the Comparative Fit Index (CFI) and the Standardized Root Mean Square Residual (SRMR) were selected. According to Hu and Bentler (1999), combined cut-off values close to .95 and .09 respectively indicate good fit. Initial model estimation by means of confirmatory factor analysis indicated suboptimal fit in terms of SBS- $\chi^2$ /df

[SBS- $\chi^2(42) = 188.38$ ; SBS- $\chi^2/df = 4.49$ ; CFI = .977; SRMR = .042]. Modifications indices suggested to add an error covariance between two E/I parcels. Allowing this error covariance improved model fit [ $\Delta$ SBS- $\chi^2(1) = 32.61$ ,  $p < .001$ ]. All parcels of the final model [SBS- $\chi^2(41) = 139.99$ ; SBS- $\chi^2/df = 3.41$ ; CFI = .985; SRMR = .033] loaded strongly on their corresponding factor (mean lambda = .81). In sum, a reliable measurement model was obtained.

Our hypothesized structural model states that E/I predicts SDO, which would then predict racial prejudice. In other words, this model is a full mediation model (Baron & Kenny, 1986) in which the path from E/I to racial prejudice is expected to become nonsignificant when SDO is inserted. To test this, we first estimated a main effects model in which E/I serves as a direct predictor of racial prejudice. Estimation of this model [SBS- $\chi^2(19) = 96.07$ ; SBS- $\chi^2/df = 5.06$ ; CFI = 0.972; SRMR = 0.035] revealed a positive association between E/I and racial prejudice ( $\beta = .59$ ;  $p < .001$ ). Next, a full mediation model (in which E/I was only indirectly related to racial prejudice through SDO) was compared to a partial mediation model (in which E/I had direct effects on racial prejudice in addition to the indirect effects through SDO). Fit indices favored the partial mediation model [SBS- $\chi^2(41) = 139.99$ ; SBS- $\chi^2/df = 3.41$ ; CFI = .985; SRMR = .033]: Adding a path from E/I to racial prejudice improved the model fit [ $\Delta$ SBS- $\chi^2(1) = 27.65$ ,  $p < .001$ ], but although the direct effect from E/I on racial prejudice remained significant, it decreased substantially (from  $\beta = .59$  to  $\beta = .24$ ). Moreover, the indirect effect on racial prejudice ( $z = 8.42$ ;  $p < .001$ ) was significant, indicating that SDO plays a significant intervening role in relations between E/I and racial prejudice. In the final model, there were significant effects ( $p < .001$ ) of E/I on SDO ( $\beta = .58$ ) of SDO on prejudice ( $\beta = .54$ ) and of E/I on prejudice ( $\beta = .24$ ) (see Figure 1).

The present analyses yield partial support for our hypotheses: There was an effect from E/I goal pursuit on prejudice, with extrinsic relative to intrinsic goal pursuits relating to more racial prejudice. Moreover, in line with the reasoning that those who pursue extrinsic rather than intrinsic goals adopt SDO in order to maintain clear status distinctions in society, which, in turn, offers validity for the external criteria they use to evaluate their self-worth and justifies prejudice toward low-status minority groups, this effect could partly be accounted for by differences in SDO. However, E/I goal pursuit continued to have a direct effect on prejudice, suggesting that



**Figure 1**

Test of the theoretical model of cross-sectional relations between extrinsic versus intrinsic goal pursuit (E/I), social dominance orientation (SDO), and prejudice in Study 1 and Study 2 (Time 1). Coefficients are standardized estimates. For clarity, effects of education (Study 1) and gender (Study 1 and 2) are not shown. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

differences in SDO are insufficient to explain fully the relationship between E/I goal pursuit and prejudice. Likely, this relationship has an emotional basis as well. The fact that individuals pursuing extrinsic rather than intrinsic goals have more difficulties getting their needs for autonomy, competence and relatedness satisfied (Vansteenkiste, Neyrinck, et al., in press) might evoke frustration, which, in turn, directly leads people to exhibit prejudice against members of low-status minority groups. In other words, apart from the fact that the pursuit of extrinsic rather than intrinsic goals might lead people to endorse a hierarchy-maintaining and hierarchy-enhancing ideology, the frustration resulting from lack of need satisfaction might in itself be a source of prejudice.

**STUDY 2**

A second study investigated whether the results of Study 1 can be replicated with a measure of ethnic prejudice, whether E/I goal pursuit actually predicts over-time changes in SDO and ethnic prejudice, and whether the effects of goal pursuit on changes in ethnic prejudice, if any, are mediated by the effects of goal pursuit on changes in SDO. The hypothesized sequence of events is based on the assumption derived from Self-Determination Theory that extrinsically rather than intrinsically oriented individuals will approach others in a socially dominant fashion, because this would be perceived instrumental to attain material goods. However, it is also possible that people high on SDO, because they see the world as a competitive jungle, might try to get as much of the pie as they can get in an

attempt to maintain and/or strengthen their socially dominant position (and hence pursue extrinsic rather than intrinsic goals). Following this reasoning, SDO would predict E/I goals rather than the other way around. As far as ethnic prejudice is concerned, a similar logic can be applied. Although it is plausible to assume that people who are focused on extrinsic goals will despise what they consider illegitimate competitors, it is also plausible to assume that negative feelings toward foreigners will lead people to express their superiority by showing that they are better at attaining extrinsic goals. Consequently, it is important to examine whether goal pursuit predicts changes in SDO and prejudice, or whether goal pursuit is predicted by these attitudes.

## Method

### *Participants*

Data were collected during regular school hours in secondary schools in the Flemish-speaking part of Belgium. The first wave of the data collection was conducted in the fall of 2004 (Time 1) and consisted of 905 high school students following an academic track (Mean age = 14.94; 51.22% male). The second wave was conducted in the fall of 2005 (Time 2) and consisted of 867 students (Mean age = 15.96; 50.69% male). Approximately 80% of the initial sample participated in the second wave. All participants in the longitudinal sample ( $N = 724$ ; 49.17% male) were born in Belgium, were of Belgian nationality, and had parents of Belgian nationality. All of them belonged to the Flemish majority. Eighty-five percent lived in an intact family with parents being married and/or living together. Thirteen percent had divorced parents, and 2% had at least one deceased parent; only one was an orphan.

A logistic regression analysis tested if sample attrition (drop-out = 0; retention = 1) was predicted by age, gender (male = 1; female = 2), and all study variables at Time 1. Age and gender were entered in Step 1, and goal pursuit, RWA, SDO, and ethnic prejudice were entered in Step 2. Model  $\chi^2$  for Step 1 was significant ( $\chi^2(2) = 28.84, p < .01$ ). Retention was predicted by being younger (odds ratio = 0.46,  $p < .01$ ) and female (odds ratio = 1.54,  $p < .05$ ). Step 2 did not add to the prediction ( $\chi^2(4) = 4.16, ns$ ). In short, students participating in both waves were somewhat younger and more likely to be female than those who participated at Time 1 only but did not differ in any of the study variables, demonstrating the aselectivity of our longitudinal sample in comparison to the initial sample.

### *Measures*

Five-point, Likert-scale items anchored by *Completely disagree* and *Completely agree* were used for all measures. Participants filled out a 12-item Aspiration Index assessing the importance placed on extrinsic and intrinsic values. Participants recorded to what extent they attached importance to the extrinsic values of financial success, image, and fame, and to the intrinsic values of growth, community contribution, and affiliation (two items each). As in Study 1, systematic response sets were controlled by subtracting an individual's overall mean score from each individual score, after which a second-order exploratory factor analysis was conducted on the subscales. The scree plot pointed to a one-factor solution, explaining 40% of the variance at both Time 1 and Time 2. The intrinsic subscales had minimal positive loadings of .50 and the extrinsic subscales had minimal negative loadings of  $-.50$  on this factor. Subsequently, the intrinsic items were reversed, and an overall extrinsic versus intrinsic (E/I) value score was computed by averaging the extrinsic and the (reversed) intrinsic scales. Cronbach's alpha was .76 at Time 1 and .75 at Time 2. Again, a positive score indicated a tendency to attach importance to extrinsic rather than intrinsic values. Additionally, participants completed the SDO scale and an adapted version of the racial prejudice scale that was used in Study 1. Adaptations were only minor and served to broaden the scope from racial prejudice to ethnic prejudice (for instance, the item "We have to keep our race pure and fight mixture with other races" was reworded to "We have to keep our culture pure and fight mixture with other cultures"). Cronbach's alphas were .85 and .86 for SDO, and .81 and .83 for ethnic prejudice at Time 1 and Time 2, respectively.

## Results

### *Preliminary Analyses*

Means, standard deviations and correlations between the measures can be found in Table 1. Stability coefficients of the constructs were high, ranging from .59 to .63. Across and within the waves, all variables were significantly positively related. In sum, the necessary conditions for the specified structural model were fulfilled. Results of these analyses are reported in the next section.

To assess mean-level changes in the constructs, a repeated-measures ANOVA was performed, with measurement time as the within-subjects variable and the study variables as dependent variables. No mean-level changes were observed. To assess gender differences, ANOVAs were performed with gender as between-subjects variable

**Table 1**  
Means, Standard Deviations and Correlations Between the Variables  
in Study 2

	Mean	SD	1	2	3	4	5
1. E/I (Time 1)	-0.76	0.85					
2. E/I (Time 2)	-0.75	0.80	.59***				
3. SDO (Time 1)	2.46	0.68	.45***	.39***			
4. SDO (Time 2)	2.52	0.67	.37***	.52***	.63***		
5. Racism (Time 1)	2.07	0.79	.43***	.37***	.56***	.44***	
6. Racism (Time 2)	2.07	0.77	.30***	.49***	.39***	.58***	.59***

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

and goal pursuit, SDO, and prejudice as dependent variables. At Time 1, gender differences were obtained in goal pursuit ( $F(1, 718) = 13.64, p < .05$ ), SDO ( $F(1, 716) = 45.80, p < .05$ ) and ethnic prejudice ( $F(1, 712) = 62.80, p < .05$ ). Males reported higher levels of E/I goal pursuit ( $M = -0.66; SD = 0.84$ ), SDO ( $M = 2.63; SD = 0.70$ ) and ethnic prejudice ( $M = 2.30; SD = 0.85$ ) than females ( $M = -0.88; SD = 0.79; M = 2.30; SD = 0.58$ ; and  $M = 1.85; SD = 0.65$ , respectively). Similar results were obtained at Time 2: Gender differences were obtained for SDO ( $F(1, 720) = 55.36, p < .05$ ) and ethnic prejudice ( $F(1, 719) = 80.02, p < .05$ ). Males reported higher levels of E/I goal pursuit ( $M = -0.68; SD = 0.84$ ), SDO ( $M = 2.68; SD = 0.66$ ) and ethnic prejudice ( $M = 2.30; SD = 0.80$ ) than females ( $M = -0.92; SD = 0.77; M = 2.33; SD = 0.62$ ; and  $M = 1.82; SD = 0.63$ , respectively). Given these differences, gender was inserted as a control variable in the remaining analyses.

### Primary Analyses

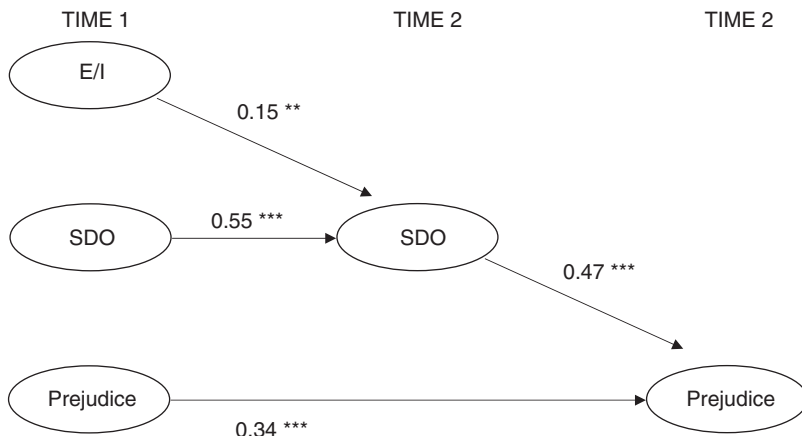
*Confirmatory factor analyses.* Structural equation modeling with latent variables was performed. At Time 1 and Time 2, we randomly created three parcels for SDO and ethnic prejudice and three parcels containing one intrinsic and one (reversed) extrinsic scale as indicators of the latent constructs. For each latent variable, the unstandardized loading of the indicator with the highest loading was set to 1. In spite of this, screening of the parcels indicated data non-normality. Therefore, the asymptotic covariance matrix among the

parcels was used. In the measurement model, the errors of the same indicators at different measurement points were allowed to covary and the factor loadings were set equivalent across the waves. Confirmatory factor analysis indicated good model fit [SBS- $\chi^2(129) = 352.19$ ; SBS- $\chi^2/df = 2.73$ ; CFI = .985; SRMR = .054]. All factor loadings were significant (mean lambda = .84). Hence, a reliable and longitudinally invariant measurement model was obtained.

*Cross-sectional test of the hypothesized model.* First, at Time 1, we tested the cross-sectional model of Study 1, which states that E/I predicts SDO, which would then predict ethnic prejudice. In other words, the proposed model is a full mediation model in which the direct path from E/I to ethnic prejudice is expected to become non-significant when SDO is inserted. To test this, we first estimated a main effect model in which E/I serves as a direct predictor of ethnic prejudice. Estimation of this model [SBS- $\chi^2(12) = 71.47$ ; SBS- $\chi^2/df = 5.96$ ; CFI = 0.964; SRMR = 0.535] revealed a positive association between E/I and ethnic prejudice ( $\beta = .49$ ;  $p < .001$ ). Next, a full mediation model (in which E/I was only indirectly related to prejudice through SDO) was compared to a partial mediation model (in which E/I had direct effects on prejudice in addition to the indirect effect through SDO). Fit indices favored the partial mediation model [SBS- $\chi^2(30) = 160.65$ ; SBS- $\chi^2/df = 5.36$ ; CFI = .969; SRMR = .052]: Adding a path from E/I to ethnic prejudice improved the model fit [ $\Delta$ SBS- $\chi^2(1) = 17.44$ ,  $p < .001$ ], but although the direct effect remained significant, it decreased substantially (from  $\beta = .49$  to  $\beta = .27$ ). Moreover, the indirect effect ( $z = 6.39$ ;  $p < .001$ ) was significant, indicating that SDO plays a significant intervening role. In the resulting model, there were significant effects ( $p < .001$ ) of E/I on SDO ( $\beta = .49$ ), of SDO on racial prejudice ( $\beta = .47$ ), and of E/I on racial prejudice ( $\beta = .27$ ) (see Figure 1).

*Longitudinal test of the hypothesized model.* Next, the hypothesized unidirectional model was tested longitudinally. This model assumes that E/I goal pursuit would predict increases in SDO over time, which would, in turn, predict increases in prejudice. First, we checked whether goal pursuit at Time 1 had an effect on ethnic prejudice at Time 2 controlling for initial levels of prejudice. Estimation of a model including E/I goal pursuit at Time 1 and prejudice

at Time 1 as simultaneous predictors of prejudice at Time 2 [SBS- $\chi^2(29) = 97.18$ ; SBS- $\chi^2/df = 3.35$ ; CFI = 0.983; SRMR = 0.049] showed that Time 1 E/I goal pursuit did not predict Time 2 prejudice ( $\beta = .02$ ;  $p > .05$ ) above and beyond the level of stability in prejudice ( $\beta = .59$ ;  $p < .001$ ). Although goal pursuit does not have a direct effect on over-time changes in ethnic prejudice, it might still have an indirect effect on such changes through its effect on over-time changes in SDO. To test this, an indirect effects model was tested. In this model, goal pursuit at Time 1 was modeled as a predictor of SDO at Time 2, controlling for prior levels of SDO at Time 1. Furthermore, SDO at Time 2 was modeled as a predictor of ethnic prejudice at Time 2 after controlling for prior levels of ethnic prejudice at Time 1. This theory-driven model, displayed in Figure 2, was found to fit the data well [SBS- $\chi^2(91) = 285.62$ ; SBS- $\chi^2/df = 2.84$ ; CFI = .984; SRMR = .049]. The model shows that goal pursuit predicted increases in SDO from Time 1 to Time 2 and that SDO, in turn, predicted ethnic prejudice at Time 2, even when controlling for prior levels of ethnic prejudice. The indirect effect of goal pursuit at Time 1 on ethnic prejudice on Time 2 through changes in SDO was significant ( $z = 2.83$ ;  $p < .01$ ), suggesting that goal pursuit



**Figure 2**

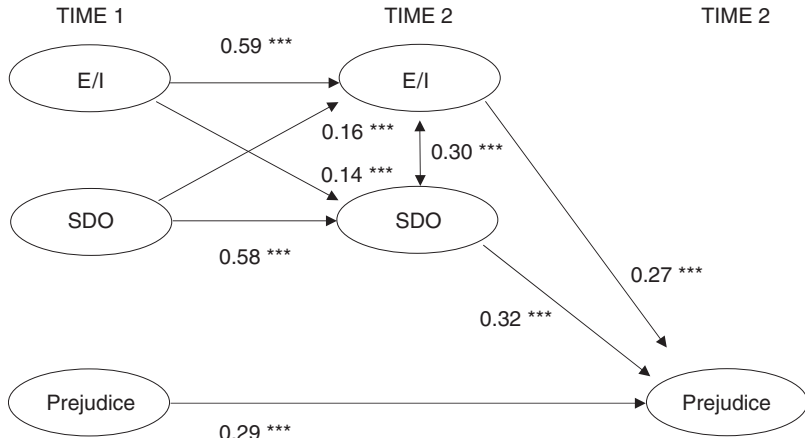
Test of the theoretical model of longitudinal relations between extrinsic versus intrinsic goal pursuit (E/I), social dominance orientation (SDO), and racism in Study 2. Coefficients are standardized estimates. For clarity, gender effects are not shown. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .



does have an indirect effect on changes in ethnic prejudice over time through its effect on changes in SDO over time.

*Direction of effects.* To examine the validity of the hypothesized sequence of events assumed in the model tested in the preceding paragraph, a number of models were estimated addressing the order of effects in associations between E/I goal pursuit and both SDO and prejudice. First, we checked whether goal pursuit at Time 1 had an effect on ethnic prejudice at Time 2 and/or whether ethnic prejudice at Time 1 had an effect on goal pursuit on Time 2. To assess this, the cross-temporal stability in goal pursuit ( $\beta = .59$ ) and ethnic prejudice ( $\beta = .59$ ) as well as the within-time associations between goal pursuit and ethnic prejudice at Time 1 ( $r = .53$ ;  $p < .001$ ) and Time 2 ( $r = .30$ ;  $p < .001$ ) were controlled. This analysis showed that there were no cross-lagged effects of either goal pursuit on prejudice ( $\beta = .02$ , *ns*) or of prejudice on goal pursuit ( $\beta = .12$ , *ns*). Second, cross-lagged analyses examined the associations between E/I goal pursuit and SDO. After controlling for the stability in goal pursuit ( $\beta = .58$ ) and SDO ( $\beta = .59$ ) as well as the within-time associations between goal pursuit and SDO at Time 1 ( $r = .54$ ;  $p < .001$ ) and Time 2 ( $r = .29$ ;  $p < .001$ ), cross-lagged effects of goal pursuit on SDO ( $\beta = .11$ ,  $p < .05$ ) and of SDO on goal pursuit ( $\beta = .16$ ,  $p < .05$ ) were obtained.

*Revised model.* Given the fact that we not only found goal pursuits to predict SDO but also found SDO to predict goal pursuit, our original theoretical model appeared to be in need of revision. Accordingly, an alternative model was tested which included reciprocal rather than unidirectional relationships between E/I goal pursuit and SDO. This model incorporated goal pursuit at Time 2, which was predicted by SDO at Time 1, and independently predicted ethnic prejudice at Time 2. The revised model, which is displayed in Figure 3, fit the data well [SBS- $\chi^2(134) = 402.96$ ; SBS- $\chi^2/df = 3.01$ ; CFI = .983; SRMR = .059]. The model shows that goal pursuit predicted increases in SDO from Time 1 to Time 2, that SDO predicted increases in goal pursuit from Time 1 to Time 2, and that both goal pursuit at Time 2 and SDO at Time 2 independently predicted increased levels of ethnic prejudice at Time 2. The indirect effect of goal pursuit at Time 1 on prejudice at Time 2 through changes in SDO was significant ( $z = 5.05$ ;  $p < .01$ ), but so was the indirect effect of SDO at Time 1 on prejudice at Time 2 ( $z = 6.25$ ;  $p < .01$ ). In sum, this revised model suggests that E/I



**Figure 3**

Test of the revised model of longitudinal relations between extrinsic versus intrinsic goal pursuit (E/I), social dominance orientation (SDO), and racism in Study 2. Coefficients are standardized estimates. For clarity, gender effects are not shown. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

goal pursuits and SDO are reciprocally related over time and independently predict over-time increases in prejudice.

### GENERAL DISCUSSION

Given that modern societies increasingly become multicultural, racial and ethnic prejudice pose a threat to peaceful coexistence. Therefore, the scientific search for predictors and mechanisms that can explain prejudice is both important and urgent. From this perspective, the present studies reveal several interesting findings. Cross-sectional analyses suggest that both individuals' extrinsic versus intrinsic goal pursuit and their endorsement of a social dominance orientation are positively related to their racial and ethnical prejudice. Whereas past research consistently demonstrated an association between SDO and prejudice, the present study is among the first to establish an association between the pursuit of extrinsic (vs. intrinsic) goals and prejudice. Although we originally hypothesized that E/I goal pursuit would be only indirectly related to prejudice through the effect of SDO, mediation analyses demonstrated that E/I goal pursuit still directly predicted prejudice in addition to

the indirect effect through SDO. Further, cross-lagged analyses demonstrated that E/I goal pursuit and SDO are reciprocally related and independently predict over-time increases in prejudice. The implications of these findings are discussed in the following paragraphs.

### *Goal Pursuit and Prejudice*

The pursuit of extrinsic rather than intrinsic goals is said to yield a different approach toward other people and society as a whole (Kasser, 2002). Extrinsically oriented individuals are primarily concerned with making a good impression on others through the acquisition of material goods, even at the expense of the quality of their relationships (Deci & Ryan, 2000). Others are approached in a more objectifying and strategic fashion (Kasser, 2002; Vansteenkiste, Simons, Lens, Soenens, & Matos, 2005): They are perceived as exchangeable products that should be used in the most efficient manner to get ahead in their extrinsic goal pursuit. In contrast, intrinsically oriented individuals are more likely to possess good empathic skills (Kasser, 2002) and to be more pro-socially oriented, both of which have been shown to relate negatively to racial and ethnic prejudiced attitudes and behaviors. In accordance with this, although differences in goal pursuit did not predict over-time changes in ethnic prejudice, the cross-sectional analyses of both Study 1 and Study 2 reveal that endorsing extrinsic rather than intrinsic values is associated with racial and ethnic prejudice at a given point in time. The average effect across both studies was remarkably strong ( $r = .56$ ,  $p < .001$ ). This result extends previous work on extrinsic versus intrinsic goal pursuits. Whereas previous studies either mapped out the personal costs associated with different goal pursuits (i.e., lower well-being, health, and learning; e.g., Vansteenkiste, Duriez, et al., in press) or showed that an E/I goal pursuit is associated with more conflicting love and friendship relations (Kasser & Ryan, 2001), the present study shows that individuals who are oriented toward extrinsic rather than intrinsic goals are less likely to connect to and build trustful relations with newcomers in their society.

### *Goal Pursuit, SDO, and Prejudice*

Why do extrinsically rather than intrinsically oriented individuals display elevated prejudice levels? We argued that for extrinsically

oriented individuals, the acquisition of material goods signals welfare and social superiority and provides them with a sense of (contingent) self-worth. Unfortunately, in their attempt to attain material goods, other people are often perceived as barriers. One way to reach their extrinsic goals is to adopt a socially dominant stance and to conceive of other social groups as inferior. Individuals who are intrinsically oriented, in contrast, are by definition more concerned with the feelings and well-being of other individuals and other social groups (e.g., community contribution) and have a stronger need for genuine relationships with other people (e.g., affiliation). Therefore, they are less likely to engage in manipulative and strategic interpersonal and intergroup behavior. Consistent with this reasoning, the cross-sectional analyses of Study 1 and Study 2 revealed positive associations between extrinsic versus intrinsic goal pursuits and SDO. Also in line with our reasoning, the longitudinal results of Study 2 showed that goal pursuit predicted over-time changes in SDO.

In addition to the finding that E/I goal pursuits relate to higher levels of SDO, we hypothesized that SDO might function as a mediator of the cross-sectional and longitudinal associations between E/I goal pursuit and prejudice. In the cross-sectional analyses of Study 1 and Study 2, we found that the pursuit of extrinsic goals was related to SDO and that SDO accounted for a substantial part of the direct association between E/I goal pursuit on racial and ethnic prejudice: This direct effect of E/I goal pursuit on prejudice shrunk to about 50% of its original size (from .59 to .24 and from .49 to .27) when taking differences in SDO into account. In line with this, our longitudinal analyses showed that E/I goal pursuit at Time 1 predicted SDO at Time 2 (even after controlling for prior SDO levels) and that SDO at Time 2, in turn, predicted ethnic prejudice at Time 2 (even after controlling for prior prejudice levels). The indirect effect of an extrinsic rather than intrinsic goal pursuit on increases in prejudice through increases in SDO was also significant, suggesting a significant intervening role of SDO in relations between goal pursuit and ethnic prejudice from a longitudinal perspective. In spite of this, all our analyses showed that goal pursuit continued to have a direct effect on racial and ethnic prejudice, suggesting that differences in whether people adopt a hierarchy-maintaining and enhancing ideology are insufficient to fully explain the relationship between E/I goal pursuit and prejudice. This finding is compatible with recent

findings reported by Roets, Van Hiel, and Cornelis (2006), who found materialism (a proxy of the extrinsic goal of financial success) to predict prejudice over and above the effects of SDO and Right-Wing Authoritarianism. Possibly, the relationship between E/I goal pursuit and prejudice is not purely conscious and cognitive but partly emotional as well. Given that, individuals pursuing extrinsic rather than intrinsic goals have difficulties satisfying their needs for autonomy, competence, and relatedness (Vansteenkiste, Neyrinck, et al., in press), and they might experience frustration, which, in turn, directly leads to prejudice against members of low-status minority groups. Future research might examine whether the remaining direct effect of E/I goal pursuit on prejudice disappears after taking differences in need satisfaction into account.

#### *Reciprocal Effects of Goal Pursuit and SDO*

Although goal pursuit predicted over-time changes in SDO, an additional set of longitudinal analyses showed that the association between E/I goal pursuit and SDO is not a simple unidirectional one. It was found that E/I goal pursuit does not only predict over-time increases in SDO but that, conversely, SDO also predicts over-time increases in E/I goal pursuit. Consequently, our hypothesized mediation model needed to be revised in order to incorporate a reciprocal relation between SDO and goal pursuit. This revised model fit the data well and showed (a) that there is mutual over-time reinforcement of goal pursuit and SDO and (b) that both goal pursuit and SDO have independent effects on increased levels of prejudice. Apparently, extrinsically rather than intrinsically oriented individuals increasingly adopt a more socially dominant attitude towards others, presumably because such an attitude is instrumental for attaining one's materialist goals, but, at the same time, people who are socially dominant increasingly focus on attaining materialist goods (rather than, for instance, focus on their personal development), presumably because this helps them attain, maintain, or even further reinforce their socially dominant position. Thus, E/I goal pursuits and SDO seem to form a mutually reinforcing constellation of motivations and attitudes that stand in the service of one another and are strongly related to ethnic prejudice at any given point in time.

*Limitations and Future Directions*

Although the present study contains a number of strengths, an important limitation is worth noting. This study included only two types of prejudice, namely ethnic and racial prejudice. Replication with other indicators of prejudice is needed to estimate the generalizability of these findings. We predict goal pursuit will also predict other forms of prejudice (e.g., sexism), because extrinsically rather than intrinsically oriented individuals generally lack the empathic skills to understand any other person's perspective. Finally, previous research on prejudice dispositions has primarily examined personality antecedents, but less attention has been devoted to contextual antecedents (Pratto et al., 1994). We predict that social agents (e.g., parents, organizations, schools) and policies that promote the pursuit of extrinsic rather than intrinsic goals (Vansteenkiste, Simons, Lens, Sheldon, & Deci, 2004) may stimulate individuals to adopt SDO and extrinsic rather than intrinsic goals and, hence, may promote prejudice. Future research might want to explore this.

*Conclusion*

The present study is among the first to demonstrate a link between the pursuit of extrinsic (vs. intrinsic) goals and negative interpersonal attitudes and beliefs such as SDO and prejudice. The fact that endorsing extrinsic rather than intrinsic values is associated with a number of personal health and well-being costs is one thing. After all, it is each individual's choice to organize one's life around certain goals rather than others. However, the pursuit of extrinsic goals becomes more problematic if it also yields societal costs, as suggested in the present research. Extrinsically oriented individuals adopt a rather intolerant attitude toward people from other racial and ethnic backgrounds. This is problematic in light of the enormous migration streams that traverse contemporary European societies. The pursuit of E/I goals seems to develop together with the belief that our society is a dog-eat-dog world in which adopting a dominant stance toward others is the only way to survive. E/I goals and social dominance mutually reinforce one another over time, and both factors hinder people from adopting a tolerant view on different races and ethnicities.

## REFERENCES

- Altemeyer, B. (1998). The other "authoritarian personality". In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 30, pp. 47–92). San Diego: Academic Press.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, **51**, 1173–1182.
- Billiet, J., & De Witte, H. (1995). Attitudinal dispositions to vote for a "new" extreme right-wing party: The case of "Vlaams Blok". *European Journal of Political Research*, **27** (2), 181–202.
- Bollen, K. A. (1989). A new incremental fit index for general structural equation models. *Sociological Research and Methods*, **16**, 492–503.
- Brown, K. W., & Kasser, T. (2005). Are psychological and ecological well-being compatible? The role of values, mindfulness, and lifestyle. *Social Indicator Research*, **74**, 349–368.
- Burkholder, G., & Harlow, L. (2003). An illustration of a longitudinal cross-lagged model design for larger structural equation models. *Structural Equation Modeling*, **10**, 465–486.
- Byrne, B. (2001). *Structural equation modelling with AMOS*. Hillsdale, NJ: Erlbaum.
- Coffé, H., Billiet, J., & Cambré, B. (2002). Etnocentrisme en stemgedrag. Evolutie tussen 1991 en 1999 (Ethnocentrism and voting behaviour: Evolution between 1991 and 1999). In M. Swyngedouw & J. Billiet (Eds.), *De kiezer heeft zijn redenen. 13 juni 1999 en de politieke opvattingen van Vlamingen (The voter has reasons: June 13, 1999, and the political attitudes of the Flemish)* (pp. 95–109). Leuven: Acco.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and the "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, **11**, 227–268.
- Duckitt, J., Wagner, C., du Plessis, I., & Birum, I. (2002). The psychological bases of ideology and prejudice: Testing a dual process model. *Journal of Personality and Social Psychology*, **83**, 75–93.
- Duriez, B. (2004). A research note on the relation between religiosity and racism: The importance of the way in which religious contents are being processed. *The International Journal for the Psychology of Religion*, **14**, 175–189.
- Duriez, B., & Soenens, B. (2006). Personality, identity styles, and authoritarianism: An integrative study among late adolescents. *European Journal of Personality*, **20**, 397–417.
- Duriez, B., & Van Hiel, A. (2002). The march of modern fascism. A comparison of social dominance orientation and authoritarianism. *Personality and Individual Differences*, **32**, 1999–1213.
- Duriez, B., Van Hiel, A., & Kossowska, M. (2005). Authoritarianism and social dominance in Western and Eastern Europe: The importance of the socio-political context and of political interest and involvement. *Political Psychology*, **26**, 299–320.

- Eberhardt, J., & Fiske, S. (1998). *Confronting racism. The problem and the response*. Thousand Oaks, CA: Sage.
- Hainsworth, P. (2000). *The politics of the extreme right: From the margins to the mainstream*. London: Pinter.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1–55.
- Jöreskog, K. G., & Sörbom, D. (1996a). *LISREL 8: Structural equation modeling with the SIMPLIS Command Language*. Chicago: SSI.
- Jöreskog, K. G., & Sörbom, D. (1996b). *PRELIS 2: User's reference guide*. Chicago: SSI.
- Kasser, T. (2002). *The high price of materialism*. London: MIT Press.
- Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: Correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, *65*, 410–422.
- Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, *22*, 280–287.
- Kasser, T., & Ryan, R. M. (2001). Be careful for what you wish: Optimal functioning and the relative attainment of intrinsic and extrinsic goals. In P. Schmuck & K. M. Sheldon (Eds.), *Life goals and well-being: Towards a positive psychology of human striving* (pp. 116–131). Goettingen: Hogrefe & Huber.
- Kernis, M. (2003). Toward a conceptualization of optimal self-esteem. *Psychological Inquiry*, *14*, 1–26.
- Khanna, S., & Kasser, T. (2004). *Materialism, objectification, and alienation from a cross-cultural perspective*. Paper submitted for publication.
- Kline, R. B. (1998). *Principles and practices of structural equation modeling*. New York: Guilford.
- Lubbers, M., Gijbels, M., & Scheepers, P. (2004). Extreme right-wing voting in Western Europe. In: M. Gijbels, L. Hagendoorn, & P. Scheepers (Eds.), *Nationalism and exclusion of migrants: Cross-national comparisons* (pp. 157–184). Aldershot, UK: Ashgate.
- Marsh, H. W., Hau, K. T., Balla, J. R., & Grayson, D. (1998). Is more ever too much? The number of indicators per factor in confirmatory factor analysis. *Multivariate Behavioral Research*, *33*, 181–220.
- McHoskey, J. W. (1999). Machiavellianism, intrinsic versus extrinsic goals, and social interest: A self-determination analysis. *Motivation and Emotion*, *23*, 267–283.
- Patrick, H., Neighbors, C., & Knee, C. (2004). Appearance-related social comparisons: The role of contingent self-esteem and self-perceptions of attractiveness. *Personality and Social Psychology Bulletin*, *30*, 501–514.
- 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*, *67*, 741–763.
- Roets, A., Van Hiel, A., & Cornelis, I. (2006). Does materialism predict racism? Materialism as a distinctive social attitude and a predictor of prejudice. *European Journal of Personality*, *20*, 155–168.



- Rokeach, M. (1968). *Beliefs, attitudes, and values*. San Francisco: Jossey-Bass.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. *American Psychologist*, *55*, 68–78.
- Ryan, R. M., & Deci, E. L. (2004). Avoiding death or engaging life as accounts of meaning and culture: A comment on Pyszczynski, Greenberg, Solomon, Arndt, and Schimel (2004). *Psychological Bulletin*, *130*, 473–477.
- Satorra, A., & Bentler, P. M. (1994). Corrections to test statistics and standard errors in covariance structure analysis. In A. von Eye & C. C. Clogg (Eds.), *Latent variable analysis: Applications in developmental research* (pp. 399–419). Newbury Park, CA: Sage.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1–65). San Diego: Academic Press.
- Schwartz, S. H., & Huismans, S. (1995). Value priorities and religiosity in four western religions. *Social Psychology Quarterly*, *58*, 88–107.
- Sheldon, K. M., & Kasser, T. (1995). Coherence and congruence: Two aspects of personality integration. *Journal of Personality and Social Psychology*, *68*, 531–543.
- Sheldon, K. M., Sheldon, M. S., & Osbaldiston, R. (2000). Prosocial values and group assortment in an N-person prisoner's dilemma. *Human Nature*, *11*, 387–404.
- Sheldon, K. M., Ryan, R. M., Deci, E. L., & Kasser, T. (2004). The independent effects of goal contents and motives on well-being: It's both what you pursue and why you pursue it. *Personality and Social Psychology Bulletin*, *30*, 475–486.
- Sidanius, J., Pratto, F., Martin, M., & Stallworth, L. (1991). Consensual racism and career track: Some implications of social dominance theory. *Political Psychology*, *12*, 691–721.
- Tajfel, H., & Turner, J. (1979). A integrative theory of intergroup conflict. In W. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Monterey, CA: Brooks/Cole.
- Vala, J., Lima, M., & Lopes, D. (2004). Social values, prejudice and solidarity in the European Union. In W. Arts & L. Halman (Eds.), *European values at the turn of the millennium* (pp. 139–163). Leiden: Brill.
- Van Hiel, A., & Duriez, B. (2002). Een meetinstrument voor individuele verschillen in Sociale Dominantie Oriëntatie [A scale to measure individual differences in social dominance orientation]. *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, *57*, 114–116.
- Van Hiel, A., Pandelaere, M., & Duriez, B. (2004). The impact of need for closure on conservative beliefs and racism: Differential mediation by authoritarian submission and authoritarian dominance. *Personality and Social Psychology Bulletin*, *30*, 824–837.
- Vansteenkiste, M., Duriez, B., Simons, J., & Soenens, B. (in press). Materialistic values and well-being among business students: Further evidence for their detrimental effect. *Journal of Applied Social Psychology*.

- Vansteenkiste, M., Lens, W., & Deci, E. L. (2006). Intrinsic versus extrinsic goal-contents in self-determination theory: Another look at the quality of academic motivation. *Educational Psychologist*, **41**, 19–31.
- Vansteenkiste, M., Neyrinck, B., Niemiec, C. P., Soenens, B., De Witte, H., & Van den Broeck, A. (in press). Examining the relations among extrinsic versus intrinsic work value orientations, basic need satisfaction, and job experience: A self-determination theory approach. *Journal of Occupational and Organizational Psychology*.
- Vansteenkiste, M., Simons, J., Lens, W., Sheldon, K. M., & Deci, E. L. (2004). Motivating learning, performance, and persistence: The synergistic role of intrinsic goals and autonomy-support. *Journal of Personality and Social Psychology*, **87**, 246–260.
- Vansteenkiste, J., Simons, J., Lens, W., Soenens, B., & Matos, L. (2005). Examining the motivational impact of intrinsic versus extrinsic goal framing and autonomy-supportive versus internally controlling communication style upon early adolescents' academic achievement. *Child Development*, **76**, 483–501.
- Vansteenkiste, M., Simons, J., Lens, W., Soenens, B., Matos, L., & Lacante, M. (2004). Less is sometimes more: Goal-content matters. *Journal of Educational Psychology*, **96**, 755–764.