



# Why are some people more susceptible to ingroup threat than others? The importance of a relative extrinsic to intrinsic value orientation

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## ABSTRACT

Whereas an individual differences perspective recently pointed to the importance of a relative extrinsic to intrinsic value orientation in the prediction of outgroup attitudes, the intergroup relations perspective stresses the importance of threat. This study investigates the interplay of both perspectives. A scenario study among high-school students showed that only people who attach greater relative importance to extrinsic values react with a negative attitude towards an outgroup that is portrayed as threatening. A longitudinal study among university students then showed that people with a relatively greater extrinsic value orientation are not only more likely to react to threat but also to perceive threat. Specifically, cross-lagged analyses showed that a relatively greater extrinsic value orientation predicted over-time increases in threat perceptions.

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## 1. Introduction

Following World War II, from two different angles, psychologists set out to gain insight into the genesis of negative outgroup attitudes. The first research line, starting off with the seminal work of Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950), regards negative outgroup attitudes as a result of individual differences making people prone to adopt such attitudes. The second views negative outgroup attitudes as resulting from characteristics of the intergroup situation (e.g., Levine & Campbell, 1972; Tajfel & Turner, 1979). Although both research lines shed light on the same phenomenon, they developed relatively independently of one another. The present study attempts to integrate both traditions to gain insight in the interplay of individual differences and characteristics of the intergroup context. Specifically, the present study aims to examine whether people who place a relatively high value on extrinsic relative to intrinsic goals (Kasser & Ryan, 1996) are more likely to display negative outgroup attitudes when an outgroup is portrayed as threatening and/or display positive outgroup attitudes when an outgroup is portrayed as enriching (Study 1) and

whether certain value orientations predispose people to perceive outgroups as threatening (Study 2).

## 2. The individual differences perspective

Shortly after World War II, Adorno et al. (1950) introduced “The Authoritarian Personality” to explain the rise of fascism. They assumed a childhood characterized by strict discipline, harsh punishment, and little warmth to produce a pathological personality structure typical to people who admire fascist ideology. To assess this personality structure, they proposed the Fascism (F) scale. In the 1980s, Altemeyer (1981, 1996) revised this concept and developed the Right-Wing Authoritarianism (RWA) scale. However, as research focused on authoritarianism’s submissive side, the motive for group-based dominance, which was part of the original authoritarianism construct, was largely overlooked (Altemeyer, 1998). In the 1990s, a renewed interest in this motive led to the study of the social dominance orientation (SDO; Pratto, Sidanius, Stallworth, & Malle, 1994), which refers to a preference for hierarchy versus equality in social systems. RWA and SDO are nowadays often thought of as two sides of the same authoritarian coin, with RWA indicating submission and SDO indicating dominance (e.g., Altemeyer, 1998; Son Hing, Bobocel, Zanna, & McBride, 2007), and studies have shown that both predict outgroup attitudes (e.g., Sibley, Robertson, & Wilson, 2006).

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More recently, a third attitude dimension was proposed as a predictor of outgroup attitudes: Materialism (Roets, Van Hiel, & Cornelis, 2006). Materialism is defined in terms of the importance people ascribe to (the acquisition of) possessions (Richins & Dawson, 1992), with collecting material goods being an important priority for materialists. The materialism concept is not new. Fromm (1976) already differentiated between a “having” and a “being” orientation. According to him, people in modern society prefer “having” to “being” and have started to pursue happiness through the acquisition of material goods and status rather than through other means such as personal relationships and inner experiences. The distinction between a “having” and a “being” orientation recently resurfaced in Goal-Content Theory, one of the five mini-theories of Self-Determination Theory (Deci & Ryan, 2000; Vansteenkiste, Niemiec, & Soenens, 2010). Goal-Content Theory discerns the goals people pursue and the values they hold in terms of whether they are extrinsic or intrinsic in nature (Kasser & Ryan, 1996). Intrinsic goals such as self-development, affiliation, and community contribution would be inherently satisfying to pursue because they are focused on the human self-actualization tendency. In contrast, extrinsic goals such as financial success, physical attractiveness, and social popularity would be at odds with one’s personal interests and potential, and would be directed at external indicators of worth (e.g., wealth or fame) instead (Duriez & Klimstra, submitted for publication; Vansteenkiste, Soenens, & Duriez, 2008).

According to Goal-Content Theory, the valuation of extrinsic goals is not problematic as such, but is thought to become problematic when extrinsic goals become too important within a person’s value-system (Sheldon & Kasser, 2008). In line with this, people who place a relatively high value on extrinsic relative to intrinsic goals were found to show less signs of well-being (e.g., self-esteem, life satisfaction, and positive affect) and more signs of ill-being (e.g., depression, anxiety, and negative affect; Kasser, 2002; Vansteenkiste et al., 2008). This association between individuals’ value orientation and their well-being was found in various nations and age groups, and with different measures of both goals and well-being (Kasser, 2002; Sheldon & Kasser, 2008). In addition to displaying well-being decrements, people who place a relatively high value on extrinsic relative to intrinsic goals were found to perform less well in academics (Tabachnick, Miller, & Relyea, 2008; Vansteenkiste, Lens, & Deci, 2006), to be less persistent in physical exercising (Sebire, Standage, & Vansteenkiste, 2009) and to be more prone to bulimic symptoms (Verstuyf, Vansteenkiste, & Soenens, 2012). More importantly for the present purpose, a relatively greater extrinsic value orientation has also been found to predict poorer quality friendships and love relations (Kasser & Ryan, 2001), less ecological engagement (Brown & Kasser, 2005), less cooperation when resources are scarce (Sheldon, Sheldon, & Osbaldiston, 2000), heightened Machiavellianism (McHoskey, 1999), and more racial and ethnic prejudice (Duriez, 2011a; Duriez, Vansteenkiste, Soenens, & De Witte, 2007; Van Hiel, Cornelis, & Roets, 2010) as well as a heightened resistance against multiculturalism (Duriez, 2011b).

### 3. The intergroup relations perspective

The idea that negative outgroup attitudes reflect individual differences in underlying psychological dispositions (i.e., personality traits, value orientation, or attitudes) has been criticized from an intergroup relations perspective because it leaves too little room for situational features. Specifically, this intergroup relations perspective emphasizes the pressure that the environment can impose upon individuals. In this respect, Realistic Group Conflict Theory (Levine & Campbell, 1972) argued that society consists of different

groups which can have conflictual goals and identified group interdependence as an important determinant of outgroup attitudes. When two groups find themselves competing for scarce resources, intergroup attitudes will be negative. In contrast, when two groups find themselves in a situation in which resources can be obtained through cooperation, positive outgroup attitudes can be expected. In a series of field experiments, Sherif (1966) showed that manipulating group interdependence changed outgroup attitudes. When groups were forced to compete, outgroup attitudes became more negative. In contrast, when they were given a common goal, outgroup attitudes tended to become more positive. More recent studies indicate that a situation can be experienced as competitive even in the absence of actual competition, and that perceiving an intergroup situation as competitive is sufficient for group members to develop negative outgroup attitudes (Esses, Jackson, & Armstrong, 1998).

Social Identity Theory (Tajfel & Turner, 1979) acknowledged the importance of perceiving an intergroup situation as competitive, but stressed that this is not a necessary condition for outgroup attitudes to turn negative. According to Social Identity Theory, people are not only motivated to obtain a positive personal identity, but also a positive group identity. The value of a group identity would be assessed by comparing an ingroup with relevant outgroups. If such comparisons turn out in favor of the ingroup, the ingroup is perceived as higher in status, resulting in a positive social identity, and, hence, a positive self-concept. However, if these comparisons turn out in favor of the outgroup, ingroup bias mechanisms (i.e., ingroup favoritism and/or outgroup derogation) are likely to occur in order to restore one’s self-esteem. Although the ingroup can be valued on material grounds, Social Identity Theory stresses that the symbolic level is equally important, and that, when an outgroup threatens the norms and values of the ingroup, outgroup attitudes are equally likely to turn negative (Tajfel & Turner, 1979). Numerous studies found both realistic and symbolic threat to determine outgroup attitudes (e.g., Curseu, Stoop, & Schalk, 2007; Esses et al., 1998; Stephan, Ybarra, & Bachman, 1999; Voci, 2006), but no clear evidence was found that either realistic or symbolic threat would be a stronger predictor of negative outgroup attitudes (Brown, 2010), and, in some cases, threat effects on outgroup attitudes were found only when people perceived both realistic and symbolic threat (Stephan, Renfro, Esses, Stephan, & Martin, 2005).

### 4. Towards an integrated perspective

The individual differences and intergroup relations perspective emphasize different determinants of outgroup attitudes. Whereas the latter emphasizes that attitudes turn more negative when outgroups are perceived as a threat to the ingroup, the former predicts that, even though situational characteristics might affect the mean level of outgroup attitudes, individual differences in particular dispositions (e.g., in goal orientation) will continue to predict rank-order differences. Recently, attempts have been made to integrate both perspectives in a so-called interaction perspective. From an interaction perspective, it can be expected that not everyone will react equally strong to outgroups that threaten the ingroup. In this respect, Duckitt (2001) argued that members of a threatened ingroup will be especially prone to adopt negative attitudes towards the outgroup that is the source of threat when they are high on RWA and/or SDO. In line with this, some studies found interactive effects of RWA and/or SDO on the one hand and threat on the other hand in the prediction of outgroup attitudes (Feldman & Stenner, 1997; Cohrs & Asbrock, 2009; Cohrs & Ibler, 2009; Cohrs, Kiehlmann, Maes, & Moschner, 2005; Pratto & Shih, 2000). However, other studies failed to find the proposed interactions, converging on the conclusion that RWA/SDO and threat have independent

main effects on outgroup attitudes (Akrami, Ekehammar, Bergh, Dahlstrand, & Malmsten, 2009; Crowson, Debacker, & Thoma, 2006; Esses et al., 1998; Meeus, Duriez, Vanbeselaere, Phalet, & Kuppens, 2009; Oswald, 2005).

Meeus et al. (2009) have argued that one reason why the interactions between RWA/SDO and threat have been difficult to find might be that RWA/SDO are too closely related to outgroup attitudes and that both outgroup attitudes and RWA/SDO take root in feelings of threat. Hence, it is important to focus on more distal variables that might shape both differences in RWA/SDO and outgroup attitudes. Given that goals and values have been argued to be more fundamental than attitudes (e.g., Duriez, Van Hiel, & Kossowska, 2005) and given that both outgroup attitudes and RWA/SDO were shown to be partly shaped by differences in a relative extrinsic versus intrinsic value orientation (Duriez, 2011a; Duriez, Soenens, & Vansteenkiste, 2007), studying the interaction between individual differences in a relative extrinsic versus intrinsic value orientation and threat in the prediction of outgroup attitudes might shed more light on why certain people react more strongly to ingroup threat than others.

From an interaction perspective, it has also been argued that people not only differ in the way they respond to threat, but also in the degree to which they perceive outgroups as threatening. In this respect, Cohrs and Ibler (2009) showed that authoritarians are not only more likely to react with negative attitudes towards outgroups that are depicted as threatening but that they are also more likely to perceive outgroups as a threat to the ingroup. However, again, this study exclusively focused on differences in RWA/SDO. Given that goals and values have been considered more fundamental than attitudes and given that both outgroup attitudes and differences in RWA/SDO were shown to be partly shaped by differences in a relative extrinsic versus intrinsic value orientation, zooming in on individual differences in a relative extrinsic versus intrinsic value orientation might shed light on why certain people are more likely than others to perceive ambiguous situations as a threat to the ingroup.

## 5. The present study

Given that people who attach greater relative importance to extrinsic goals more strongly value status and the acquisition of (often scarce) possessions, such people might be more prone to develop negative outgroup attitudes and display discrimination towards outgroups that are perceived to threaten the acquisition of desired goods and/or high status. In addition, people with a relatively more extrinsic goal orientation might not only be likely to react more strongly with negative outgroup attitudes when they perceive threat but might also be more likely to perceive threat in naturalistic situations that are ambiguous and open to interpretation. The present studies aimed to investigate (1) whether people with a relatively more extrinsic goal orientation are more likely to display negative outgroup attitudes towards an outgroup that is portrayed as threatening to the ingroup and/or display positive outgroup attitudes when an outgroup is portrayed as enriching (Study 1), and (2) whether people with a relatively more extrinsic goal orientation are more likely to perceive outgroups as threatening (Study 2). To our knowledge, the present study is the first to simultaneously investigate the effects of an extrinsic versus intrinsic goal orientation and threat on outgroup attitudes. In doing so, the present study could shed light on the reasons as to why a relatively more extrinsic goal orientation has been found to relate to more negative outgroup attitudes (Duriez et al., 2007).

## 6. Study 1

Study 1 investigated the interplay of an extrinsic relative to intrinsic goal orientation with the way in which an outgroup is depicted on attitudes towards that outgroup. Specifically, after assessing differences in goal orientation and prior to assessing attitudes towards Polish immigrants, vignettes manipulated perceptions of a new wave of Polish immigrants that was said to inevitably result from the recent inclusion of Poland in the European Union (EU). Polish immigration was either portrayed as threatening (i.e., the threat condition), neutral (i.e., the neutral control condition), or enriching (i.e., the enrichment condition). In the experimental conditions, in addition to providing arguments tapping into the realistic and symbolic level, arguments were provided that tap into a third form of threat that is stressed in the literature: Safety threat (e.g., Dallago & Roccato, 2010). Adolescents were sampled because adolescence seemed the most optimal period to study the issues at hand. Developmental theories have pointed out that the main developmental task during adolescence is the formation of a personal identity, which not only includes developing personal goals and values but also views on issues of social and political nature (Erikson, 1968). In addition, scholars have argued that adolescence constitutes the formative phase for political and intergroup attitudes, and, although open to further development later in life, attitudes acquired in this period would be fairly resistant to change (e.g., Altemeyer, 1998).

### 6.1. Method

#### 6.1.1. Participants and procedure

Participants were 482 Dutch-speaking Belgian high school students following an academic track (Mean age = 16.52; range = 15–19; 40% males). Data gathering took place during regular school hours. First, three individual differences variables were assessed: RWA, SDO, and extrinsic versus intrinsic goals. Second, participants were randomly assigned to one of three groups. Each group received a vignette dealing with the entrance of Poland into the EU. For each group, this vignette started off with a brief historical overview of the EU, after which participants were told that the EU is interested in finding out whether youngsters in different countries support the course of the EU. At the end of this paragraph, it was announced that, given the recent entrance of Poland in the EU, the EU was particularly interested in youngster's attitude towards Polish immigrants.

For the first group ( $N = 161$ ), the rest of the vignette described negative consequences of the Polish entry into the EU on the culture, economics and perceived safety of Belgian citizens. Specifically, it was stressed (1) that Poland has different habits and values, is very conservative and unlikely to adapt itself to the habits and traditions of other member states, and, given its size and impact, is a threat to the cultural identity of small member states (i.e., symbolic threat), (2) that the expected Polish immigration is likely to raise unemployment and lower wages in Belgium, whilst several companies can be expected to relocate to Poland (i.e., realistic threat), and (3) that the arrival of Polish immigrants will increase criminality in general and its more cruel forms in particular (i.e., safety threat). For the second group ( $N = 158$ ), in a neutral way, the rest of the vignette detailed the application procedure countries need to follow in order to obtain EU membership and the steps Poland had to take to become a member state. For the third group ( $N = 163$ ), the rest of the vignette described positive consequences of the entry of Poland into the EU. Specifically, it was stressed (1) that this might help restore the Belgian traditional identity because Poland emphasizes values such as solidarity that used to be corner stones of the Belgian culture (i.e., symbolic

enrichment), (2) that the resulting extension of the European market is beneficial for Belgian export and employment, whereas, at the same time, an influx of immigrants that are willing to take on jobs that are not particularly popular might solve the aging problem and ensure Belgian economic prosperity (i.e., realistic enrichment), and (3) that the resulting improved collaboration in combating the Polish mafia severely decreased drugs and arms traffic (i.e., safety enrichment). More details on these vignettes can be found in Meeus et al. (2009).

Finally, participants received a manipulation check and a measure tapping attitudes towards Polish immigrants. At the end of each session, participants were debriefed. The present article focuses exclusively on individual differences in goal orientation. Results obtained with RWA and SDO have been reported elsewhere (Meeus et al., 2009; Study 1). As already mentioned, neither RWA nor SDO was found to interact with threat in the prediction of outgroup attitudes.

### 6.1.2. Questionnaires

All items were administered in Dutch, and, unless otherwise indicated, accompanied by 5-point Likert scales anchored by *Completely disagree* (1) and *Completely agree* (5). Participants completed a 12-item Dutch version (Duriez et al., 2007) of the Aspiration Index (Kasser & Ryan, 1996) assessing the importance placed on the extrinsic goals of financial success (two items; e.g., “It is important for me to be financially successful in life”), image (two items; e.g., “It is important for me to be attractive and good-looking”), and fame (two items; e.g., “It is important for me to receive recognition and admiration for the things I do”), and the intrinsic goals of growth (two items; e.g., “It is important for me to develop myself and continue to grow as a person”), community contribution (two items; e.g., “It is important for me to try to do things that improve society”), and affiliation (two items; e.g., “It is important for me to build solid and intimate friendships”). As in previous research (e.g., Duriez, Luyckx, Soenens, & Berzonsky, 2012; Duriez et al., 2007), after controlling for systematic response sets, the scree plot of an exploratory factor analysis pointed to a one-factor solution (explaining over 40% of the variance) on which the intrinsic items loaded  $>.50$  and the extrinsic items loaded  $<-.50$ . Subsequently, after reversing the intrinsic items, a relative extrinsic to intrinsic value orientation (REIVO) score was computed by averaging all items. Cronbach’s alpha was  $.78$  ( $M = -0.50$ ,  $SD = 0.37$ ). A positive score indicates a tendency to value extrinsic over intrinsic goals.

After the manipulation, a 4-item manipulation check was administered. On a nine point Likert scale from *very enriching* ( $-4$ ) over *neutral* ( $0$ ) to *very threatening* ( $+4$ ), participants indicated perceived threat caused by the admission of Poland into the EU and the resulting immigration wave for Belgium in general and Belgian culture, economy, and criminality in particular (e.g., “I consider the effect of the entry of Poland into the EU to be...”; Cronbach’s alpha =  $.84$ ;  $M = -0.12$ ;  $SD = 1.23$ ). Finally, negative outgroup attitudes were measured with a 6-item scale assessing the extent to which Belgians should be advantaged over Polish immigrants (e.g., “Flemish people have more right to subsidized housing facilities than Polish immigrants”; Cronbach’s alpha =  $.91$ ;  $M = 2.76$ ;  $SD = 0.96$ ).

## 6.2. Results and discussion

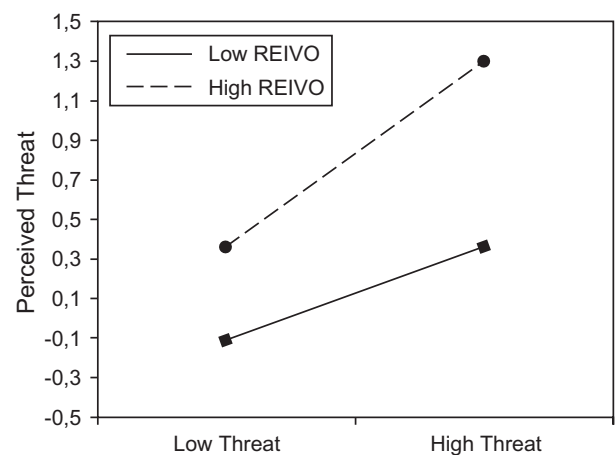
### 6.2.1. Preliminary analyses

Univariate ANOVA analyses indicated that the experimental conditions differed significantly with respect to the extent to which Polish migration was experienced as threatening [ $F(2,481) = 52.64$ ,  $p < .01$ ]. Post-hoc Tukey comparisons showed that participants in the threat condition felt significantly more threatened ( $M = -0.79$ ,  $SD = 1.15$ ) than those in the neutral

condition ( $M = -0.05$ ,  $SD = 0.92$ ), who, in turn, felt significantly more threatened than those in the enrichment condition ( $M = 0.48$ ,  $SD = 1.25$ ). In addition, one sample  $t$ -tests comparing the mean of each group with the zero midpoint revealed that Polish migration was evaluated as threatening in the threat condition [ $t(160) = -8.70$ ,  $p < .01$ ], as neutral in the neutral condition [ $t(157) = -0.70$ ,  $ns$ ], and as enriching in the enrichment condition [ $t(162) = 4.89$ ,  $p < .01$ ]. Further, univariate analyses indicated that, although no gender differences were found for REIVO ( $F(1,479) = 2.83$ ,  $ns$ ), boys perceived the vignettes as more threatening ( $F(1,479) = 7.61$ ,  $p < .01$ ) and had more negative outgroup attitudes than girls ( $F(1,479) = 7.85$ ,  $p < .01$ ). Therefore, in all further analyses, gender was controlled for.

Next, by means of moderated multiple regression analyses (Aiken & West, 1991; Cohen & Cohen, 1983), we examined whether the manipulations were similarly perceived by individuals scoring low and high on REIVO. Interactions were calculated by multiplying the standardized scores of the relevant components. In order to meaningfully test for interactions, product terms have to be partialled out for the effects of lower order components (Aiken & West, 1991). This was done by entering the control variable (i.e., gender) in Step 1 (male = 1; female = 2), the continuous predictor (i.e., REIVO) in Step 2, dummy variables representing the different conditions in Step 3, and the interactions between REIVO and the dummies in Step 4. The first dummy referred to the effect of threat, with the threat condition coded 1 and the neutral and enrichment conditions coded 0. The second dummy referred to the effect of enrichment, with the enrichment condition coded 1 and the neutral and threat conditions coded 0. In this way, the effect of the manipulations can be compared with the baseline.

After controlling for gender in Step 1 ( $R^2 = .01$ ;  $F(1,480) = 6.94$ ,  $p < .01$ ), Step 2 adding REIVO ( $\Delta R^2 = .10$ ;  $\Delta F(1,479) = 45.35$ ,  $p < .01$ ), Step 3 adding the dummy variables ( $\Delta R^2 = .02$ ;  $\Delta F(2,477) = 60.26$ ,  $p < .01$ ), and Step 4 adding the interaction terms ( $\Delta R^2 = .01$ ;  $\Delta F(2,475) = 2.28$ ,  $p < .10$ ) all contributed to the prediction of perceived threat. In the final Step 4 model, perceived threat was predicted by gender ( $\beta = -.09$ ,  $p < .05$ ), REIVO ( $\beta = .30$ ,  $p < .01$ ), the threat dummy ( $\beta = .30$ ,  $p < .01$ ), the enrichment dummy ( $\beta = -.19$ ,  $p < .01$ ) and the REIVO  $\times$  threat interaction ( $\beta = .10$ ,  $p < .05$ ). The REIVO  $\times$  enrichment interaction ( $\beta = .05$ ,  $ns$ ) was non-significant. To meaningfully interpret the REIVO  $\times$  threat interaction, we plotted this interaction in Fig. 1. As can be seen in this figure, both individuals low and high in REIVO perceived



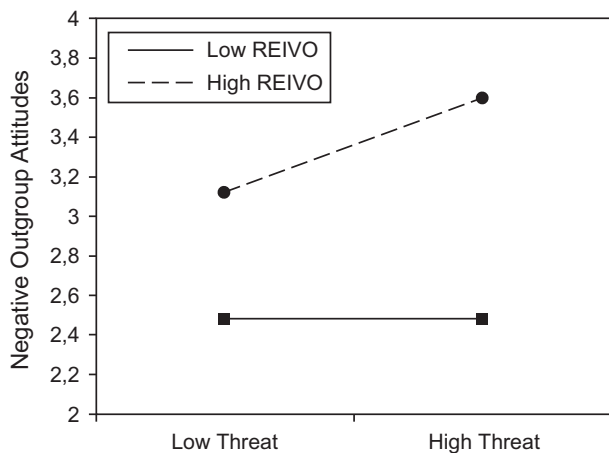
**Fig. 1.** Simple slopes of the impact of the low threat conditions (i.e., the neutral and enrichment condition) versus the high threat condition (i.e., the threat condition) on perceived threat among individuals scoring low and high on a relative extrinsic to intrinsic value orientation (REIVO). High REIVO levels are one standard deviation above the mean and low REIVO levels are one standard deviation below the mean.



more threat in the high threat compared to the low threat condition, but this effect was more pronounced among individuals high in REIVO. To substantiate this observation, we created three subgroups differing in REIVO based on the 33rd and 66th percentile scores. It was found that, although the threat induction predicted perceived threat among both individuals low ( $\beta = .34, p < .01$ ) and high in REIVO ( $\beta = .48, p < .01$ ), its effect was stronger in the latter group.

### 6.2.2. Primary analyses

The main effects of REIVO and the vignettes as well as the hypothesized interactions on negative outgroup attitudes were also tested by means of moderated multiple regression analyses. After controlling for gender in Step 1 ( $R^2 = .02; F(1,479) = 7.85, p < .01$ ), Step 2 adding REIVO ( $\Delta R^2 = .20; \Delta F(1,478) = 120.51, p < .01$ ), Step 3 adding the dummy variables ( $\Delta R^2 = .02; \Delta F(2,476) = 5.35, p < .01$ ), and Step 4 adding the interaction terms ( $\Delta R^2 = .01; \Delta F(2,474) = 3.41, p < .05$ ) all contributed to the prediction of negative outgroup attitudes. In the final Step 4 model, negative outgroup attitudes were predicted by gender ( $\beta = -.09, p < .05$ ), REIVO ( $\beta = .30, p < .01$ ), the threat dummy ( $\beta = .12, p < .01$ ), and the REIVO  $\times$  threat interaction ( $\beta = .14, p < .01$ ). The enrichment dummy ( $\beta = -.02, ns$ ) and the REIVO  $\times$  enrichment interaction ( $\beta = .10, ns$ ) did not have a significant effect. In other words, we obtained main effects of REIVO and threat (but not enrichment) as well as an interaction effect between REIVO and threat (but not enrichment). To interpret this interaction effect, the interaction was plotted in Fig. 2. Several important issues can be observed when looking at Fig. 2. First, this figure shows clearly the main effect of REIVO on negative outgroup attitudes. Individuals high relative to low in REIVO displayed more negative outgroup attitudes both under low and high threat. Second, this figure shows that the main effect of threat should be interpreted with caution as the threat effect can only be noticed among individuals high in REIVO. The outgroup attitudes of those low in REIVO were not more negative in the high compared to the low threat condition. This interpretation was empirically substantiated when examining the difference between the low versus high threat conditions among individuals varying in their REIVO level. After creating three subgroups differing in REIVO based on the 33rd and 66th percentile scores, it was found that the threat induction did not predict a negative attitude among individuals low in REIVO ( $\beta = .12, ns$ ), while it did predict a more negative attitude among individuals high in REIVO ( $\beta = .22, p < .05$ ).



**Fig. 2.** Simple slopes of the impact of the low threat conditions (i.e., the neutral and enrichment condition) versus the high threat condition (i.e., the threat condition) on negative outgroup attitude among individuals scoring low and high on a relative extrinsic to intrinsic value orientation (REIVO). High REIVO levels are one standard deviation above the mean and low REIVO levels are one standard deviation below the mean.

### 6.2.3. Discussion

In line with the individual differences perspective, individual differences in an extrinsic versus intrinsic value orientation predicted rank-order differences in outgroup attitudes. As such, results confirm previous findings (e.g., Duriez et al., 2007) that people who place a relatively high value on extrinsic relative to intrinsic goals are more likely to display negative outgroup attitudes. Specifically, individuals with a relatively stronger extrinsic value orientation adopted a more negative attitude towards Polish immigrants, regardless of how these immigrants were portrayed. According to the intergroup relations perspective, ingroup threat (and enrichment) can be expected to have a main effect on outgroup attitudes. However, although we found a main effect of threat (but not of enrichment), this main effect should be interpreted with caution. Specifically, in line with the interaction perspective, results clearly suggest that not everyone is equally likely to react with negative attitudes towards an outgroup that is portrayed as a threat. In fact, portraying an outgroup as threatening to the ingroup only had an impact on the outgroup attitudes of people who place a relatively high value on extrinsic relative to intrinsic goals. The outgroup attitudes of people who strongly value intrinsic over extrinsic goals, in contrast, appeared to be completely immune to our threat induction. The latter finding is particularly interesting when considered in conjunction with the findings obtained for perceived threat. Although individuals low in REIVO perceived the threatening condition to be more threatening than the other two conditions (see Fig. 1), they did not react to this threat experience by adopting a more negative outgroup attitude (see Fig. 2). In contrast, individuals high in REIVO seemed to both detect more threatening cues in the high threat condition, as evidenced by their perceived threat levels, and react more strongly to this threat, as evidenced by their heightened negative outgroup attitude.

## 7. Study 2

Study 1 indicated that individuals with different value orientations differ in the extent to which they perceive a threatening situation as threatening as well as in how they cope with this situation. Yet, what remains unexplored is whether people who place a relatively high value on extrinsic goals are also more likely to perceive outgroups as a threat to the ingroup in naturalistic (rather than experimentally induced) situations that are open to interpretation. To this end, apart from looking at within-time correlations, in Study 2, we also investigated cross-lagged relations between a relative extrinsic value orientation and threat perceptions in a two-wave longitudinal sample. This design allowed us to examine whether threat perceptions take root in individual differences in goal orientation. Specifically, in line with the idea that people who place a relatively high value on extrinsic goals are more likely to perceive threat, one can expect a relatively more extrinsic goal orientation to predict over-time increases in perceived threat. At the same time, perceptions of threat might not only result from differences in goal orientation but might cause such differences as well. In this respect, in a series of experiments, Sheldon and Kasser (2008) have shown that various forms of threat (i.e., existential, economic, and interpersonal) increased the importance of extrinsic compared to intrinsic goals. Taken together, we expected reciprocal effects between an intrinsic versus extrinsic goal orientation and perceived threat, with a relatively more extrinsic goal orientation and perceived threat mutually reinforcing each other over time. In line with previous research (e.g., Feldman & Stenner, 1997; Rickert, 1998; Stevens, Bishin, & Barr, 2006), our threat measure included perceptions of threat at both the societal (e.g., deterioration of the national economy) and personal level (e.g., deterioration of one's own economic situation).

## 7.1. Method

### 7.1.1. Participants and procedure

Dutch-speaking Belgian psychology students were assessed at two time points separated by a 3-month interval. Students were assigned a unique code to protect their confidentiality. At Time 1, 440 students took part in our research (Mean age = 18.60; range = 17–29, 85% female), of which 396 participated again at Time 2. At the scale level, 5% of the data were missing because of drop-out or because of people not answering all questions. Participants with and without complete data were compared using Little's (1988) Missing Completely At Random test. A non-significant chi-square ( $\chi^2(8) = 6.34, ns$ ) suggested (1) that drop-out occurred completely at random, and could not be attributed to systematic differences in our study variables, and that missing values could be reliably estimated using the expectation maximization algorithm (Schafer & Graham, 2002). According to Schafer and Graham (2002), this missing data estimation procedure leads to parameter estimations that more closely reflect the actual population parameters than, for instance, listwise deletion.

### 7.1.2. Questionnaires

Participants completed the same 12-item Aspiration Index as in Study 1. At both time points, after controlling for systematic response sets, the scree plot of an exploratory factor analysis pointed to a one-factor solution (explaining over 40% of the variance) on which the intrinsic items loaded  $>.50$  and the extrinsic items loaded  $<-.50$ . Subsequently, after reversing the intrinsic items, a relative extrinsic to intrinsic value orientation (REIVO) score was computed by averaging all items. Cronbach's alpha were .83 ( $M = -0.55, SD = 0.37$ ) and .81 ( $M = -0.52, SD = 0.31$ ) at Time 1 and 2, respectively. A positive score indicates a tendency to value extrinsic over intrinsic goals.

In addition, on a 7-point Likert scale anchored by *Completely disagree* (1) and *Completely agree* (7), participants filled out 12 items assessing the degree to which they perceived Moroccan immigrants (i.e., the most devalued non-EU immigrant group in Belgium) as a threat. Of these 12 items, six referred to threat at the national level and six referred to threat at the personal level. At the national level, we assessed cultural threat (two items; e.g., "Moroccan immigrants pose a threat to the Belgian cultural identity"), economic threat (two items; e.g., "Moroccan immigrants pose a threat to the economic prospects of Belgium") and safety threat (two items; e.g., "Moroccan immigrants cause an increase in violence and aggression in the Belgian society"). At the personal level, we assessed threat to one's personal values (two items; e.g., "Moroccan immigrants endanger the norms, values and traditions that I find important"), welfare (two items; e.g., "Moroccan immigrants pose a threat to my own economic prospects") and safety (two items; e.g., "I feel personally threatened by the increase in violence and aggression caused by Moroccans immigrants"). At both time points, the scree plot of an exploratory factor analysis pointed to a one-factor solution (explaining about 60% of the variance) on which all items loaded  $>.70$ . Subsequently, a perceived threat score was computed by averaging all items. Cronbach's alpha were .93 ( $M = 3.30, SD = 1.15$ ) and .95 ( $M = 3.15, SD = 1.20$ ) at Time 1 and 2, respectively. A positive score indicates a tendency to perceive Moroccan immigrants as more threatening.

## 7.2. Results and discussion

### 7.2.1. Preliminary analyses

At both time points, REIVO was positively related to perceived threat ( $r = .33$  and  $.33, p < .01$ , at Time 1 and 2, respectively). Between-time correlations showed substantial rank-order stability in REIVO ( $r = .75, p < .01$ ) and perceived threat ( $r = .73, p < .01$ ).

There were no gender differences in any of the variables, but there were age differences in REIVO at Time 1 ( $r = -.15, p < .01$ ) and Time 2 ( $r = -.10, p < .01$ ). Given these results, age was controlled for in the primary analyses.

### 7.2.2. Primary analyses

In order to examine the direction of effects between REIVO and perceived threat, a fully saturated structural equation model was tested using LISREL. This model included all manifest variables at Time 1 and Time 2, all within-time correlations at Time 1 and Time 2, and all possible prospective effects from Time 1 to Time 2. In this model, age did not have a significant effect on any of the variables. Results confirmed the within-time correlation between REIVO and perceived threat at Time 1 ( $r = .33, p < .01$ ) as well as the rank-order stability in REIVO ( $\beta = .76, p < .01$ ) and perceived threat ( $\beta = .67, p < .01$ ). More importantly, however, results showed that, whereas perceived threat did not predict over-time changes in REIVO ( $\beta = -.01, ns$ ), REIVO predicted increases in perceived threat ( $\beta = .18, p < .01$ ). Hence, whereas perceived threat at Time 1 did not predict REIVO at Time 2 when controlling for REIVO levels at Time 1, REIVO levels at Time 1 did predict perceived threat at Time 2 even when controlling for perceived threat levels at Time 1. The Time 2 correlations in this model did not show correlated change between REIVO and perceived threat ( $r = .03, ns$ ), suggesting that over-time changes in REIVO are not related to over-time changes in perceived threat.

### 7.2.3. Discussion

Results suggest that people who place a relatively high value on extrinsic relative to intrinsic goals are not only more likely to react with negative attitudes towards an outgroup that is portrayed as a threat to the ingroup, but are also more likely to perceive outgroups as threatening. Specifically, results showed that, at both time points, a relatively more extrinsic goal orientation was significantly positively related to perceiving threat. In addition, in line with the idea that people who place a relatively high value on extrinsic goals are more inclined to perceive threat, cross-lagged analyses suggested that a relatively more extrinsic goal orientation predicts over-time increases in perceived threat. Although threat perceptions were also expected to cause over-time increases in the relative importance attached to extrinsic goals, results did not support this direction of effects.

## 8. General discussion

The present research attempted to gain insight in the interplay of the determinants of negative outgroup attitudes that are proposed by the individual differences perspective (i.e., differences in a extrinsic relative to intrinsic goal orientation) and the intergroup relations perspective (i.e., differences in perceived threat). To our knowledge, this study is the first to combine individual differences in people's relative valuation of extrinsic compared to intrinsic goals with perceived threat in the prediction of outgroup attitudes. The individual differences and the intergroup relations perspective predict main effects of, respectively, a relatively more extrinsic goal orientation and threat. Finally, the interactionist perspective predicts an interaction between the two, with people placing high value on extrinsic relative to intrinsic goals being both more eager to perceive threat and to react defensively in the face of it.

In an experimental study among high-school students (Study 1), evidence was found for a main effect of a relative extrinsic goal orientation, with relatively extrinsically oriented individuals displaying a more negative attitude towards Polish immigrants, regardless of how this group was portrayed. Because of its

situation-specific character and the clear reference to a specific outgroup, the present results extend previous work (e.g., Duriez et al., 2007) in which a relative extrinsic value orientation was found to predict global prejudice levels (i.e., not tied to a specific situation). In contrast, a threat manipulation did not yield the main effect on outgroup attitudes that could be predicted from an intergroup relations perspective. In fact, the threat effect only applied to a certain group of individuals. Specifically, only those people for whom extrinsic goals are relatively central in their personal value system reacted with negative outgroup attitudes in the face of ingroup threat. Interestingly, although our threat induction did have a threat-augmenting effect on people who strongly value intrinsic over extrinsic goals, these people appeared immune against the effect of such induction on one's outgroup attitudes.

Unfortunately, although our enrichment induction appeared effective, we did not find a similar enrichment effect. In other words, portraying an outgroup as enriching to the ingroup did not lead to more favorable outgroup attitudes, neither among people who place a relatively high value on extrinsic goals nor among people who place a relatively high value on intrinsic goals. It could be argued that the failure to find such an interaction might be due to a floor effect, with people who strongly value intrinsic over extrinsic goals already having such highly positive outgroup attitudes that these cannot be altered in that direction any further. However, although people who strongly value intrinsic over extrinsic goals did not have a negative attitude towards the target group, they did not exactly have a highly positive attitude either. In fact, Fig. 1 shows that the mean outgroup attitude score among people scoring one standard deviation below the mean on REIVO was still pretty close to the neutral midpoint of the scale. Moreover, we expected an attempt at manipulating outgroup attitudes by stressing the ingroup benefits associated with an outgroup to mainly exert an effect on people that are especially interested in status and financial success (i.e., people relatively high on REIVO). It is clear that a floor effect cannot explain the lack of finding such an effect. Hence, overall, these findings suggest that, whereas anti-immigrant attitudes can be raised among some people by pointing out the negative consequences of immigration, highlighting its benefits does not lead to more positive attitudes. The finding that negative information has more impact on people's attitudes is in line with findings in social cognition research that point to the existence of a positive/negative asymmetry bias (e.g., Peeters & Czapinski, 1990).

Subsequently, in a longitudinal study among college students (Study 2), it was shown that people who place a relatively high value on extrinsic goals were not only more likely to display negative outgroup attitudes when an outgroup was portrayed as threatening, but were also more likely to perceive threat in situations that are open to interpretation. Specifically, a relatively more extrinsic goal orientation was consistently positively related to perceptions of threat, and, in addition, cross-lagged analyses indicated that a relatively more extrinsic goal orientation predicted over-time increases in threat perceptions. However, no evidence was found for the idea that, in the face of threat, people increase the importance attached to extrinsic relative to intrinsic goals. As such, our study failed to replicate an effect that has been shown in previous experimental studies (Sheldon & Kasser, 2008). For the time being, we can only speculate as to why we failed to replicate this effect. One reason might be that, although threat prompts a shift in goals and values, this effect is short-lived. The 3 month time gap that was used in the present study, which is much wider than the time gap used in the work of Sheldon and Kasser (2008), might have been too wide. Further research should investigate the nature and the duration of the effect threat has on people's goals and values in more detail.

### 8.1. Limitations and suggestions

First, although the present study contains a number of strengths, including the use of both experimental (Study 1) and longitudinal (Study 2) data, a limitation is that all measures were self-reports. This increased the chance shared method variance might account for our findings. Although self-reports may be the most valid means to assess adolescents' goal orientation, perception of threat, and outgroup attitude, future research might include other sources of information (e.g., parent or peer reports) or alternative methods such as interviews and/or implicit or behavioral measures.

Second, the present study could be criticized for its broad conceptualization of threat. It could be argued that, by lumping different forms of threat (i.e., economic, cultural and safety threat) into one construct, we have missed important nuances. Not everyone might be equally sensitive to all of these forms of threat. However, the choice to lump these different forms of threat into one construct was a deliberate choice. In experimental research, it has appeared difficult to differentially manipulate different forms of threat, with the induction of, for instance, economic threat also increasing cultural threat (e.g., Meeus et al., 2009). In line with this, in Study 2, an exploratory factor analyses on the threat items favored a one factor solution on which all items loaded high (>.70). When constructing three different scales on a purely conceptual basis, these scales were highly related ( $r$ s between .65 and .85 at both time points;  $p < .01$ ), and all of them had almost identical relations to the goal construct ( $r$ s between .25 and .35 at both time points;  $p < .01$ ). Nevertheless, future research might benefit from making a distinction between different forms of threat.

Finally, future research might want to look for external variables that might affect both goal orientation, threat perceptions, and outgroup attitudes. One such possible third variable is self-esteem. It is possible that people with low self-esteem will turn towards contingencies and try to extract self-worth from specific attainments or evaluations in order to repair their low self-esteem (Kernis, 2003; Vansteenkiste et al., 2008). In a longitudinal study among late adolescents, it has recently been shown that low self-esteem does indeed give rise to the pursuit of contingent self-esteem, which, in turn, increases the importance attached to extrinsic relative to intrinsic goals (Duriez & Klimstra, submitted for publication). At the same time, it has been argued that the pursuit of contingent self-esteem is likely to make people more prone to use ingroup bias mechanisms such as ingroup favoritism and/or outgroup derogation in order to achieve, maintain, or restore a positive social identity (Soenens & Duriez, in press). Another possible direction in which to look for variables that might affect both goal orientation, threat perceptions, and outgroup attitudes might be the family context. Recent studies have stressed the importance of the style parents use in interacting with children and especially of the goals they promote within this interaction for the development of an extrinsic rather than intrinsic goal orientation (Duriez, 2011a) as well as for other individual difference variables that relate to threat perceptions and negative outgroup attitudes (i.e., RWA and SDO; Duriez, Soenens, & Vansteenkiste, 2008; Duriez et al., 2007). Apart from parents, peers might also co-determine goal orientation, threat perceptions, and outgroup attitudes (Duriez, Giletta, Kuppens, & Vansteenkiste, submitted for publication; Poteat & Spanierman, 2010). In addition, cultural factors might determine the social desirability of both certain goals and certain outgroup attitudes. Cross-cultural studies might want to examine the influence of such factors in more depth. In addition, given that genetic factors (e.g., intellectual capacities and other cognitive abilities) might predispose people towards certain goals and values and/or certain right-wing attitudes (McCourt, Bouchard,



Lykken, Tellegen, & Keyes, 1999), future research might want to examine the role of these factors in more depth as well.

## 8.2. Conclusion

Although previous studies have shown that pursuing extrinsic goals at the expense of intrinsic goals is associated with more negative outgroup attitudes (e.g., Duriez et al., 2007), the present study is among the first to shed light on the psychological reasons as to why a relatively more extrinsic goal orientation relates positively to negative outgroup attitudes. Specifically, the present study shows that people for whom extrinsic values occupy a relatively more central place in their value system display more negative outgroup attitudes because they are both more likely to perceive outgroups as threatening and more likely to react defensively to threatening outgroups. In sum, it appears that, the more eager people are to increase their own financial success and status, the more anxious their life mode: They more easily perceive outgroups as a threat to the welfare of their ingroup in general and their own welfare in particular, and when they do so, they are more likely to resort to mechanisms such as outgroup derogation to achieve, maintain, or restore the status of their ingroup.

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