

Running Head: IMPROVING TOLERANCE WITH FUTURE

Improving Tolerance with Future Time Perspective:
A Longitudinal Analysis

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Abstract

The concept of future time perspective refers to the influence that considerations of future events can have on present behavioural decisions. Past research has shown that future time perspective is an important predictor of attitude and behaviour change, at different ages and in different domains, e.g., environmental policies, health behaviours, economical decision. This paper discusses how the perception of future time plays an important role in the study of interpersonal and intergroup tolerance, and how it can represent a pathway to reduce intergroup conflict. A Latent Growth Curve analysis of the Dutch National Bank Household Panel longitudinal data explored the effects of future perspective on the Big-Five dimension of agreeableness, which is notably negatively correlated intolerance. Results show that future time perspective can contribute to account for positive increments in agreeableness. In particular, respondents oriented to future were more likely to increase in agreeableness over the years. Changes in individual agreeableness over 13 years were indeed predicted by previous levels of future time perspective, while the growth in future time perspective was not significantly explained by agreeableness.

Keywords: future time orientation; generativity; social dominance orientation; prejudice.

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Benasayag and Schmitt (2005) argued that contemporary Western societies are affected by a lack of confidence in the future, which leads to an over-focus on the present and a loss of sense of long-term social ties. According to the two psychologists, when the future becomes something to avoid rather than to be aspired to, then individuals focus on the immediate satisfaction without considering the consequences of today's actions on the tomorrow's society. Furthermore, Benasayag and Schmitt suggest that societies – without the guarantee of the individual sense of social responsibility for the future – turn into stricter and more rigid structures, based on the use of power and coercion. Thus, the lack of responsibility for the future – with all the implied obligations and duties – instead of developing into greater individual freedom turns into more rigid and unequal social ties.

Kurt Lewin defined time perspective as “the totality of the individual's views of his psychological future and psychological past existing at a given time” (Lewin, 1951, p. 75). The concept of time perspective refers to the influence that considerations of past, present, and future events can have on present-day behavioural decisions. According to Strathman, Gleicher, Boninger and Edwards (1994), it represents a stable inter-individual difference and is anchored to different types of social behaviour and attitudes. The extent to which individuals project themselves into the future, the clarity with which individuals perceive future needs, and the degree to which present is connected to the past and the future, describes the time context (Husman & Shell, 2008) that individuals consider when making judgements about what is the adequate behaviour in their present.

In more recent years, interesting results on the link between future time orientation and present behaviour were found in the domain of environmental psychology, according to which the capability of evaluating future scenarios would be a good predictor of how people respond to climate change (Swim et al., 2010). For instance, Strathman and colleagues (Lindsay & Strathman, 1997; Strathman et al., 1994) showed that individuals that score high on the importance attached to future consequences of their actions are more persuaded by long-term benefits of environmental interventions and are more likely to engage in changing consuming behaviours, such as recycling and resource conservation. These results are in line with Joireman and colleagues (2001) who found that recognizing the long-term consequences of behaviour was moderately correlated to higher pro-environmental attitudes and behaviours among US university student participants. Similarly, in a study on Brazilian university students, Milfont and Gouveia (2006) found that future orientations mediated the relationship between social values and pro-environmental attitudes. Likewise, a research on a random sample of US citizens (Dietz, Dan & Shwon, 2007) showed that future orientation was a large predictor of support for climate change policies. People who are future-oriented would focus on the future of the community and would be more likely to feel responsible for it.

Generativity and Responsibility for the Community

Erikson (1963) suggested that adulthood expresses itself through *generativity*, i.e. the adult's concern for the continuity of life. According to Erikson, generativity is commonly and biologically expressed by parenting, but can also turn into a more general sense of responsibility for the community and the future generations, leading adults to find satisfaction in social activities such as teaching, mentoring, leadership and other actions that may leave behind a positive legacy for the future. Long

forgotten, the concept of generativity has found new applications in empirical research in life-course and in studies of personality psychology and sociology (de St. Aubin, McAdams & Kim, 2004; Kotre, 1999; McAdams & de St. Aubin, 1992; Snarey, 1993). For instance, research on the Midlife Development in the United States survey has shown that generativity was the most consistent predictor of many dimensions of social responsibility, such as volunteerism and contributing with time and money to community concerns, even after controlling for age and other socio-demographic factors. Similarly, Cole and Stewart (1996) found that generativity was linked to feelings of attachment to the community and civic agency.

It is worth noting that some research has shown that generativity describes an inclusive attitude towards society, rather than being exclusive or ascribed to one's own family and beloved children (Marcia, 2010). Some research by Bradley (1997) and Bradley and Marcia (1998) has shown that generativity also differs from fostering others for instrumental purposes – i.e. caring only for people considered to be similar (as members of ingroup) or mainly for achieving personal goals. In its most developed way, generativity is indeed independent of immediate advantages or effects. Rather, it is focused on generations that have yet to come and children yet to be born (Erikson, 1963; Marcia, 2010). For these reasons, we think that generativity and future time orientation conceptually overlap to a large extent. We think indeed that, beyond the different operationalizations of the two concepts, generativity – as originally theorized by Erikson and Marcia – can give a wide social perspective to the future time orientation theory. However, the commonly used generativity measure – the Loyola Generativity Scale (McAdams & de St. Aubin, 1992) – focuses more on the sense of belonging to a community rather than on the future of that community. In the Loyola scale, this dimension remains somewhat implicit, while the focus on future

consequences is explicit in other future time perspective scales (e.g., Strathman, et al., 1994; Zimbardo & Boyd, 1999) in which instead the community dimension has not been tapped. We could indeed expect that both generativity and future time orientation may be defined in psycho-social terms as concerns for the future of the community and linked to a definition of community as an inclusive playground for different categories of people and social groups. This process of inclusion of outgroups within the concept of one's own community involves the extension of social justice to groups that had formerly been excluded, such as groups oppressed by and marginalized from society (Opatow, 1990; Passini, 2010). Inclusion is indeed linked to considering outgroups as eligible of fairness entitled to resources, and is therefore linked to willingness of to make sacrifices to foster a common sake (Opatow, 2008). The exclusion of the other from shared norms, justice and moral values is instead connected to a focus on the ingroup and a conception of the world as hierarchically stratified.

Surprisingly, little research has been carried out in this direction. In the last ten years, Insko and colleagues (Cohen & Insko, 2008; Insko et al., 2001; Wolf et al., 2009) have stressed that future orientation is pivotal to reducing intergroup conflict. Their interesting experimental results showed that the manipulation of the way individuals think of the future may be a sufficient condition to generate some cooperative behavior towards outgroups. Indeed, qualitative research on the Tulsa community in Oklahoma – where in 1921 the city administration was responsible for inciting a white mob that burned down the houses of America's most affluent Black community and murdered an estimated 300 Black residents (Madigan, 2001) – highlighted that people who focus on the long-term survival of their community are more willing to accept norms of distributive justice and intergroup equality

(Greenwood, 2008). Similarly, in a group of 123 U.S. undergraduate students, Thornhill and Fincher (2007) found that consideration of future consequence was negatively correlated [$r(121) = -.25, p < .01$] with social dominance orientation (SDO) (Pratto, Sidanius, Stallworth & Malle, 1994). That is, people with a propensity to classify social groups on a superiority-inferiority dimension laid less emphasis on the future. On the basis of these considerations Morselli (2011) has shown that FTP, measured with the Consideration of Future Consequences scale (CFC, Strathman, Gleicher, Boninger & Edwards, 1994), buffered the relationship between SDO and prejudice. People scoring high on the CFC had lower derogative attitudes towards outgroups and immigrants even if they scored high on the SDO.

SDO has been proven to be a powerful predictor of racism and prejudice, accounting for over the 50% of the variance in various measures (e.g., Ekehammar, Akrami, Gylje & Zakrisson, 2004; Roets, Van Hiel & Cornelis, 2006; Van Hiel & Mervielde, 2002). Moreover, since SDO should be considered a social attitude rather than a personality dimension (Duckitt, 2001), various studies (see Sibley & Duckitt, 2008) have analyzed the social dominance orientation as a mediator between individual personality and prejudice. By investigating personality by the use of the Big Five factors – i.e. extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience – some studies (e.g. Ekehammar & Akrami, 2003; Ekehammar et al., 2004; Heaven & Bucci, 2001) have indeed shown that personality affects both SDO and prejudice. On a meta-analysis of 71 studies, Sibley and Duckitt (2008) investigated the relationships between the Big Five dimensions of personality, authoritarianism, SDO and prejudice. Results showed that the negative prediction of agreeableness on prejudice was fully mediated by SDO, as well the negative prediction of openness to experience and conscientiousness were fully mediated by

authoritarianism. As the authors asserted, “Agreeableness should predict SDO, and therefore prejudice, because people low in Agreeableness are more likely to pursue hedonistic goals and to be relatively ruthless in self-interested pursuits while displaying minimal concern when such goals conflict with the interests or desires of other people” (Sibley & Duckitt, 2008, p. 252) Some studies (Peterson, 2006; Zimbardo & Boyd, 1999), have also shown that agreeableness and other personality traits are connected to both future time orientation and generativity. In particular, in a longitudinal sample on high-school students and their parents, Peterson (2006) showed that both agreeableness and future time perspective are positively correlated with parental generativity. Even if this study did not investigate the direct relationship between agreeableness and future time perspective, data make us suppose that a relationship does exist.

However, most of the studies on FTP are cross-sectional and do not allow to properly understand the direction of the relationship. It could indeed be possible that less intolerant and more agreeable people have high future orientation, because more open to changes and more flexible. To test the direction of the relationship longitudinal data are therefore needed. Thus, if future time orientation is conducive to agreeableness we can hypothesise that (1) a growth in agreeableness would be predicted by the initial levels of CFC. Alternatively, we could also expect that the relationship between future time orientation and agreeableness is the other way round. In this case formulate an alternative hypothesis according to which (2) initial levels of agreeableness predict the change in CFC scores.

Methods

The Dutch National Bank Household Survey (DHS), included from 1996 to 2010 a 11-items version of the CFC scale. The DHS is a longitudinal research that observes the economic growth, saving, investments and expenses of Dutch families and it also taps a limited number psychological dimensions. The Big Five dimensions of personality, for instance, were also included in 1996, 2005, and 2009. To test our hypotheses, we used the Latent Growth Curve (LGC) analysis. LGC is a structural equation models in which both the initial level (mean intercept) and the growth rate (mean slope) are estimated as latent variables and the dimension of time is explicitly incorporated in the specification of those latent variables (Stoel, van Den Wittenboer & Hoox, 2003). If the mean slope is significant, then the growth is significantly different from zero and there is a development over time on average. A significant variance of the mean intercept implies that respondents start their growth at different values and a significant variance of the mean slope implies that the growth follows different rates. A significant correlation between the intercept and the slope is interpreted as the initial level influences the growth rate, while a non-significant correlation means that the initial level has no predictive power over the growth rate.

With a similar logic, parallel processes LGC models control for the initial level and the growth rate for more than one construct. In these models, the growth level of one variable can be controlled for the initial level or the growth rate of another variable. To test whether the initial level of one variable predicts the growth of the other, the mean slope of the first variable is regressed on the mean intercept of the second one and vice versa. If the regression coefficient of the intercept is significant, then we can assume that the initial level of the first variable has an effect on the growth of the second variable.

Sample and Measures

Data of the 1996, 2005 and 2009 DHS waves were used because they included the full scale of agreeableness. The overall sample was $n = 6080$, of which 5312 in the 1996 wave and 3371 in the 2009. Age of respondents ranged from 16 to 96 ($M = 44.2$; $SD = 15.6$) in the first wave, and 16 to 94 ($M = 48.7$; $SD = 17.1$) in the last wave; gender distribution across the three waves was 53% men and 47% women.

Agreeableness. Two different scales were used in the DHS to tap agreeableness: the International Personality Item Pool (Goldberg, 1999) in 2005 and 2009, and another (not specified) 100-item version of the Big Five in 1996. In order to be sure to measure the same construct, four items with similar wording were selected from both scales. Items were: “I consider other people’s feelings,” “I take other people’s interests into account,” “I empathize with others,” “I am happy to help others” for the 1996 wave; and “I feel little concern for others” (reversed), “I am not interest in other people’s problems” (reversed), “I sympathize with other’s feelings,” “I take time out for others” for the 2005 and 2009 waves. Measurement invariance between the two scales was tested with confirmatory factor analysis. Three two-group (1996 wave vs. 2005-2009 wave) models were tested to asses configural (non-constrained model), metric (equally constrained factor loadings), scalar invariance (equally constrained factor loadings and variables’ intercepts), and invariance of latent means (equally constrained factor’s intercept) (Bollen, 1989). All model fitted the data with acceptable values ($CFI > .98$; $RMSEA < .05$; $SRMR < .03$). Thus, we could assume that the items of the two scales measured the same constructs, with the same metric and the same configuration, and statistical comparison is allowed.

Future orientation. In this research, we were interested in framing the future time orientation and generativity in terms of sense of personal responsibility for the future. In our opinion neither the Zimbardo and Boyd’s time perspective inventory

(1999) nor McAdams and de St. Aubin's generativity scale (1992) properly captured this dimension. For this reason, future time orientation was measured with the *Consideration of Future Consequences* (CFC) scale (Strathman et al., 1994), which previous research have shown to correlate to other future time perspective measures (see Zimbardo & Boyd, 1999). The CFC captures the intrapersonal struggle between the immediate vs. delayed consequences of respondent's actions (Joireman et al., 2001). On a scale from 1 (extremely uncharacteristic) to 7 (extremely characteristic), participants were asked to rate the extent to which each statement of the CFC described them. Strathman et al. (1994) have shown that the scale is one-dimensional and possesses high internal and test-retest reliability and good convergent and discriminant validity. The scale showed it could tap stable individual differences and was very consistent over time in the DNB panel (Toepoel, 2010). Examples of item are "I consider how things might be in the future, and try to influence those things with my day to day behavior" and "I only act to satisfy immediate concerns, figuring the future will take care of itself" (reversed).

Results

Three LGC models were estimated via maximum likelihood with Mplus (Muthén & Muthén, 1998-2010). Model 1 estimated mean intercepts and slopes of both CFC and agreeableness. The aim of this model was to empirically test whether CFC and agreeableness grew (or diminished) across time. The time unit used as a reference was 10 years, thus a significant mean slope has to be interpreted as the average growth over ten years. To control the relationship between the initial values and growth, the model controlled also for the covariance between the intercept and the slope of the

same variable. Model 2 tested the relationship between the two variables. We wanted to control whether initial values (mean intercept) of agreeableness predicted the growth rate (mean slope) of CFC across the time points, and whether initial values of CFC predicted the growth of agreeableness. Thus, the slope of CFC was regressed on the intercept of agreeableness, and vice versa. Results are reported in Table 1.

Concerning Model 1, the variances of the intercepts of CFC and agreeableness were significant and showed that respondents differed in respect to these two variables in 1996. In Model 1 the sizes of the mean slope coefficients of both CFC and agreeableness were rather small; both coefficients were negative, indicating a slight decrease over ten years. This result is surprising given previous studies which consider CFC and agreeableness as stable individual traits (e.g., Thomas & Segal, 2006; Toepoel, 2009; Zimbardo & Boyd, 1999). However, despite the small magnitude of the coefficients, they were statistically significant, indicating that the decrease was systematic over the three time points. The variance of agreeableness was also significant and indicated that the growth rate of agreeableness changed significantly across individuals, while the non-significant CFC variance indicated that the growth of CFC was likely to be the same among respondents.

The covariance between the mean intercept and the mean slope of CFC was -0.05 ($SE = .04$), $p = ns$; for agreeableness the covariance between the two parameters was -0.03 ($SE = .08$), $p = ns$. Thus, the growth of CFC and agreeableness were not correlated to their initial level: on average respondents reported a change across the three time points, independently from their starting score on these variables.

In respect to Model 2, in line with the Hypothesis 1 the mean CFC intercept was a significant predictor of the mean agreeableness slope [$B = .12$ ($SE = .03$), $p < .001$]. The regression coefficient was positive indicating that, despite of the sign of the

growth rate, a following positive growth of agreeableness corresponded to initial higher level of CFC. In addition, the alternative hypothesis according to which the growth of CFC would be predicted by agreeableness (Hypothesis 2) was not confirmed. The regression coefficient of the agreeableness intercept was indeed not significant [$B = .03$ ($SE = .05$), ns].

The residual variance of the mean slope of agreeableness was still significant, even after regressing it on the CFC intercept. However, Model 2 fitted the data better than Model 1, the χ^2 difference between the two models was 26.76, $p < .001$, and the Bayesian Information Criteria (BIC) of Model 2 was lower than the one of Model 1. All the indicators suggest that Model 2 was preferable to Model 1.

Model 2 was also tested with a listwise approach, performing the analysis on 259 respondents (mean age in 1996 = 51.9) that participated to all the three waves and responded to all the items. Also in this model the CFC mean intercept had a significant effect on the agreeableness slope [$B = .14$ ($SE = .06$), $p < .05$] and the effect of agreeableness on the CFC growth rate was not significant [$B = .05$ ($SE = .12$), ns]. The residual variance of the agreeableness slope fell to the limit of significance ($\sigma^2 = .10$ ($SE = .05$), $p < .05$). Thus, also the model on the listwise subsample supported Hypothesis 1 instead of Hypothesis 2.

Discussion

Results of the latent growth curve model supported the hypothesis that future time perspective, such as CFC, can contribute to accounting for positive increments in agreeableness. The model showed that agreeableness oscillated systematically even if not dramatically, and such change was partially explained by future time orientation. In particular, respondents oriented to future were more likely to increase in

agreeableness over the years, although the average trend was to decrease rather than to increase.

The argument here is not that future time orientation may directly change agreeableness. The low explained variance does not support this argument. The point is instead that future orientation is an underexplored factor that may contribute, alongside others, to enhancing tolerant attitudes and behaviours towards others. The LGC analysis indeed supported the Hypothesis 1 according to which CFC can contribute to predicting agreeableness, but not the Hypothesis 2 that considered the relationship between CFC and agreeableness in the opposite direction.

Some limitations concerning the DHS data have to be highlighted, in particular this database suffered from rather high attrition, which is known to be a source of bias in the responses, in the sense that respondents who drop out are rarely at random, but they do have peculiar characteristics. In addition, the DHS renew the sample periodically to integrate dropouts from the previous wave. Thus, in the analysis, we had to deal with some respondents who answered to only one or two waves. For these reasons, the analysis was also performed on the listwise subsample ($n = 259$), which included only respondents with no missing values on all variables and across waves. Results of the listwise model were virtually the same as the general population model and support the stability of the findings.

In contrast with cross-sectional results of Study 1, which supported the developmental approach according to which people become more oriented towards the future in adulthood, the Study 2 showed a decrement over 13 years of CFC instead of an increment. We think that a pure developmental approach fails to explain this result, which may instead be explained in terms of historical and contextual influence. Between 1996 and 2005 the Western world witnessed the tragic events connected to

the 9/11 and the war on terror, and between 2005 and 2009 the world fell into the economic crisis. All these factors may have strongly influenced individual future time orientation, explaining the drop in the CFC – but also the drop in agreeableness – which, even if it focuses on individual consideration about consequences of action on a day-by-day basis, it is strongly linked to the overall perception of future (Strathman et al. 1994). If measures of future time orientation are inserted in cross cultural surveys, then it will be possible to directly address these hypotheses more rigorously and precisely.

Conclusions

The results of the present research are intriguing and we think they can pave the road to a new approach in the study of prejudice and intergroup relations. Indeed, although the CFC scale does not include any specific question about intergroup relations but focuses on the individual perception of the future, the results showed that consideration of future can contribute to predict agreeableness, which in turns is known to be inversely related to outgroup intolerance and social dominance orientation (Sibley & Duckitt, 2008).

These results suggest that – as argued by Erikson (1963) – concerns over the future overflow the edges of personal future and spread over the concern for the relationship between people, groups and the future of the community. In this sense, we should think of a future time orientation as a prosocial attitude, directed towards society and not only as concerns for one's own personal future or one's own procreation. Similarly, the philosopher Hans Jonas (1984) distinguishes between an horizontal responsibility, addressed to fellow mates and which we could also be consider as an ingroup responsibility, and a vertical responsibility that goes beyond our immediate progeny and that is referred to unknown future generations. Future

time orientation and vertical responsibility are closely interrelated notions and both are relevant concepts for social psychology in understanding those individual “forces” oriented to preserving the perpetuation of the community for the next generations. These forces suggest the individual is an actor of social change rather than a bystander. In this sense, both concepts of future time orientation and vertical responsibility lead to an active commitment towards the community and society.

Thus, thinking about the future and about the consequences of our actions for the future not only have an effect on concerns for the society and for the future generations in terms of the continuity of our world – e.g. the effects on environmental interventions and pro-environmental attitudes and behaviours demonstrated by the literature – and therefore only indirectly related to other people. It directly influences the perception of the others and the interaction with the others. This is a point that may open many applicative interventions on the reduction of prejudice and the promotion of ethnic tolerance. Indeed, according to Lewin’s (1948) analysis, future orientation is a relevant factor for coping with intergroup violence. Seginer (2008) argues that the type of future orientation – such as threats or hopes – may speed up processes of coping and resilience in adolescents exposed to violent conflicts. The analysis of our data heads in the same direction and suggests that future orientation could be an important factor in reducing intergroup tension. Thus, further developments in the research on time orientation and perspective could have an applicative approach, exploring whether different dimensions of future orientation – e.g. extension, density, valence, accessibility (Lasane & O’Donnell, 2005) – may have different effects or interactions in situations of real life intergroup hostility. For instance, it would be worthwhile exploring what relations may exist between the extension of the future time perspective – i.e. how far individuals or groups project

themselves into the future – and the willingness to reduce group conflict in post-civil war communities.

Reference

- Benasayag, M., & Schmit, G. (2003). *Les passions tristes. Souffrance psychique et crise sociale* [Sad passions. Psychic sufferance and social crisis], Paris: La Découvert.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: Wiley.
- Bradley, C. L. (1997). Generativity-stagnation: Development of a status model. *Developmental Review, 17* (3), 262-290.
- Bradley, C. L., & Marcia, J. E. (1998). Generativity-stagnation: A five-category model. *Journal of Personality, 66*, 39-64.
- Cohen, T., & Insko, C. (2008). War and peace: Possible approaches to reducing intergroup conflict. *Perspectives on Psychological Science, 3*, 87-93.
- Cole, E. R., & Stewart, A. J. (1996). Meanings of political participation among black and white women: Political identity and social responsibility. *Journal of Personality and Social Psychology, 71*, 1, 130-40.
- de St. Aubin, E., McAdams, D. P., & Kim, T. (2004). *The generative society: Caring for future generations*. Washington, DC: American Psychological Association.
- Dietz, T., Dan, A., & Shwom, R. (2007). Support for climate change policy: Social psychological and social structural influences. *Rural Sociology, 72*, 185-214.
- Duckitt, J. (2001). A dual-process cognitive-motivational theory of ideology and prejudice. In M. P. Zanna, (Ed.), *Advances in experimental social psychology* (Vol. 33, pp. 41-113). New York: Academic Press.
- Ekehammar, B., & Akrami, N. (2003). The relation between personality and prejudice: a variable- and a person-centred approach. *European Journal of Personality, 17*, 449-464.

- Ekehammar, B., Akrami, N., Gylje, M., & Zakrisson, I. (2004). What matters most to prejudice: Big five personality, social dominance orientation, or right-wing authoritarianism? *European Journal of Personality, 18*, 463-482.
- Erikson, E. H. (1963). *Childhood and society*. New York: W. W. Norton.
- Greenwood, R.M. (2008). *Time, Place, & Identity: Reparations and the Tulsa Race Riot*. Paper presented at the 7th Biennial Convention of the Society for the Psychological Study of Social Issues, Chicago, Illinois.
- Goldberg, L. R. (1999). A broad-bandwidth, public domain, personality inventory measuring the lower-level facets of several five-factor models. In I. Mervielde, I. Deary, F. De Fruyt, & F. Ostendorf (Eds.), *Personality Psychology in Europe, Vol. 7* (pp. 7-28). Tilburg: Tilburg University Press.
- Heaven, P. C. L., & Bucci, S. (2001). Right-Wing Authoritarianism, Social Dominance Orientation and personality: An analysis using the IPIP measure. *European Journal of Personality, 15*, 49-56.
- Husman, J., & Shell, D. F. (2008). Beliefs and perceptions about the future: A measurement of future time perspective. *Learning and Individual Differences, 18*, 166-175.
- Insko, C. A., Schopler, J., Gaertner, L., Wildschut, T., Kozar, R., Pinter, B., et al. (2001). Interindividual-intergroup discontinuity reduction through the anticipation of future interaction. *Journal of Personality and Social Psychology, 80*, 95-111.
- Joireman, J. A., Lasane, T. P., Bennett, J., Richards, D., & Solaimani, S. (2001). Integrating social value orientation and the consideration of future consequences within the extended norm activation model of proenvironmental behaviour. *The British Journal of Social Psychology, 40*, 133-55.

- Jonas, H. (1984). *The imperative of responsibility: In search of an ethics for the technological age*. Chicago: University of Chicago Press.
- Lasane, T. P., & O'Donnell, D. A. (2005). Time orientation measurement: A conceptual approach. In E. Strathman & J. Joireman (Eds.), *Understanding behavior in the context of time: Theory, research, and application* (pp.11-30). Mahwah, NJ: Lawrence Erlbaum Associates.
- Lewin, K. (1948). *Resolving social conflicts*. New York: Harper & Row.
- Lindsay, J. J., & Strathman, A. (1997). Predictors of recycling behavior: An application of a modified health belief model. *Journal of Applied Social Psychology, 27*, 1799.
- Madigan, T. (2001). *The burning: Massacre, destruction, and the Tulsa race riot of 1921*. New York: St. Martin's Press.
- Marcia, J. E. (2010). Life transitions and stress in the context of psychosocial development. In T. W. Miller (Ed), *Handbook of stressful transitions across the lifespan* (pp. 19-34), New York: Springer.
- McAdams, D. P., & de St. Aubin, E. (1992). A theory of generativity and its assessment through self-report, behavioral acts, and narrative themes in autobiography. *Journal of Personality and Social Psychology, 62*, 1003-1015.
- Milfont, T. L., & Gouveia, V. V. (2006). Time perspective and values: An exploratory study of their relations to environmental attitudes. *Journal of Environmental Psychology, 26*, 72-82.
- Morselli, D. (2011). *Caring for the future: Potential exit from outgroup discrimination*. 34th Annual Scientific Meeting of the International Society of Political Psychology (ISPP), Istanbul, 9-12 July 2011.

- Muthén, L. K. & Muthén, B. O. (1998-2010). *Mplus user's guide* (6th ed). Los Angeles, CA: Muthén & Muthén.
- Opatow, S. (1990). Moral exclusion and injustice: an introduction. *Journal of Social Issues, 46*, 1–20.
- Opatow, S. (2008). "Not so much as place to lay our head...": Moral inclusion and exclusion in the American civil war reconstruction. *Social Justice Research, 21*, 26-49.
- Passini, S. (2008). Exploring the multidimensional facets of authoritarianism: authoritarian aggression and social dominance orientation. *Swiss Journal of Psychology, 67*, 51-60.
- Passini, S. (2010). Moral reasoning in a multicultural society: Moral inclusion and moral exclusion. *Journal for the Theory of Social Behaviour, 40*, 435-451.
- Peterson, B. E. (2006). Generativity and successful parenting: An analysis of young adult outcomes. *Journal of Personality, 74*, 847-870.
- Petrocelli, J. V. (January 01, 2003). Factor validation of the Consideration of Future Consequences scale: Evidence for a short version. *The Journal of Social Psychology, 143*, 405-13.
- 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.

- Seginer, R. (2008). Future orientation in times of threat and challenge: How resilient adolescents construct their future. *International Journal of Behavioral Development, 32*, 272-282.
- Sibley, C. G., & Duckitt, J. (2008). Personality and prejudice: A meta-analysis and theoretical review. *Personality and Social Psychology Review, 12*, 248-279.
- Sidanius, J., Pratto, F., & Bobo, L. (1994). Social Dominance Orientation and the Political Psychology of Gender: A Case of Invariance?. *Journal of Personality and Social Psychology, 67*, 998-1011.
- Snarey, J. R. (1993). *How fathers care for the next generation: A four-decade study*. Cambridge, Mass: Harvard University Press.
- Stoel, R.D., van den.Wittenboer, G., & Hox, J., (2003). Analyzing longitudinal data using multilevel regression and latent growth curve analysis. *Metodologia de las Ciencias del Comportamento, 5*, 21-42.
- Strathman, A., Gleicher, F., Boninger, D. S., & Edwards, C. S. (1994). The consideration of future consequences: Weighing immediate and distant outcomes of behavior. *Journal of Personality and Social Psychology, 66*, 742.
- Swim, J., Clayton, S., Doherty, T., Gifford, R., Howard, G., Reser, J., et al. (2009). *Psychology and global climate change: Addressing a multi-faceted phenomenon and set of challenges*. Washington, DC: American Psychological Association.
- Thomas, J. C. & Segal, D. S. (2006). *Comprehensive handbook of personality and psychopathology*. Hoboken, N.J: John Wiley & Sons.
- Thornhill, R., & Fincher, C. L. (July 01, 2007). What is the relevance of attachment and life history to political values?. *Evolution and Human Behavior, 28*, 215-222.

Toepoel, V. (2010). Is consideration of future consequences a changeable construct?.

Personality and Individual Differences, 48, 951-956.

Van Hiel, A., & Mervielde, I. (2002). Explaining conservative beliefs and political

preferences: A comparison of social dominance orientation and

authoritarianism. *Journal of Applied Social Psychology, 32, 965-987.*

Wolf, S. T., Cohen, T. R., Kirchner, J. L., Rea, A., Montoya, R. M., & Insko, C. A.

(2009). Reducing intergroup conflict through the consideration of future

consequences. *European Journal of Social Psychology, 39, 831-841.*

Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable

individual-differences metric. *Journal of Personality and Social Psychology,*

77, 6, 1271-1288.

Table 1. Latent Growth Curve model results.

	Model 1	Model 2
	Estimate (<i>SE</i>)	Estimate (SE)
Means		
Intercept _{CFC}	4.21(.01)**	4.21(.01)**
Slope _{CFC}	-.10 (.02)**	-.24(.21)
Intercept _{Ag}	3.98 (.01)**	3.98 (.01)**
Slope _{Ag}	-.10 (.01)**	-.61(.14)**
Variance		
Intercept _{CFC}	.30 (.09)**	.33 (.07)**
Slope _{CFC}	.06 (.08)	-
Intercept _{Ag}	.21(.05)**	.22 (.05)**
Slope _{Ag}	.14 (.04)**	-
Model		
Slope _{CFC} ON	-	.03 (.05)
Intercept _{Ag}	-	
Slope _{Ag} ON Intercept _{CFC}	-	.12 (.03)**
Residual Variance		
CFC ₁₉₉₆	.41 (.09)**	.39 (.07)**
CFC ₂₀₀₅	.25 (.01)**	.25 (.01)**
CFC ₂₀₀₉	.20 (.02)**	.20 (.02)**
Agreeableness ₁₉₉₆	.10 (.05)*	.09 (.05)*
Agreeableness ₂₀₀₅	.20 (.01)**	.21 (.01)**
Agreeableness ₂₀₀₉	.09 (.01)**	.09 (.01)**
Slope _{CFC}	-	.09 (.06)
Slope _{Ag}	-	.15 (.04)**
Fit indices		
χ^2 (<i>df</i>)	57.55 (13)**	28.78 (9)**
RMSEA	.03	.02
CFI	.97	.98
SRMS	.05	.03
BIC	29384.059	29374.51

Note. $N = 6085$. ** $p < .01$. * $p < .05$. ^a $p < .10$. CFC = Consideration of Future Consequences; Ag = Agreeableness.