

BRIEF REPORT

Examining the Longitudinal Association Between Oppositional Defiance and Autonomy in Adolescence

Stijn Van Petegem, Maarten Vansteenkiste, Bart Soenens,
Wim Beyers, and Nathalie Aelterman
Ghent University

In this longitudinal study, we tested whether the association between oppositional defiance to parental authority (i.e., adolescents' tendency to bluntly reject parental rules) and autonomy would depend upon the specific conceptualization of autonomy. Whereas oppositional defiance would yield more interpersonal distance from parents, because it involves turning away from parental authority, it would also yield less volitional functioning, as oppositional defiance would come at the expense of acting upon one's personal values and interests. A sample of 387 middle and late adolescents (age range = 14–20 years at Time 1) filled out questionnaires at 2 time points, separated by a 2-year interval. With increasing age, adolescents reported less oppositional defiance and more volitional functioning. Late adolescents in particular reported less interpersonal distance from their parents. Cross-lagged analyses indicated that oppositional defiance predicted increases in interpersonal distance as well as decreases in volitional functioning across time. Conversely, higher scores on volitional functioning predicted decreases in oppositional defiance. These findings emphasize the necessity of a differentiated approach to autonomy.

Keywords: autonomy, oppositional defiance, freedom, self-determination theory, adolescence

Adolescence is often portrayed as a life period during which many youngsters aspire to more freedom, especially in the familial realm (Steinberg & Morris, 2001). Even though contemporary views no longer depict adolescent defiance as a prerequisite for healthy development toward adulthood (e.g., Arnett, 1999; Collins & Steinberg, 2006), one may still wonder whether blunt defiance to parental authority constitutes one way to achieve more personal freedom. Accordingly, the present longitudinal study examined whether defiance to parental rules yields more autonomy for middle and late adolescents, while additionally documenting age-related changes in defiance and autonomy.

Oppositional Defiance

Defiance within the parent–child relationship refers to the intentional act of resisting parental authority and represents a multifaceted construct (e.g., Kuczynski & Hildebrandt, 1997; Parkin & Kuczynski, 2012; Smetana, 2005). Indeed, previous work identified different types of resistance, which serve different goals, follow different developmental trajectories, and yield different

implications for children's functioning. Research in young children, for instance, indicated that unskillful resistance declines with increasing age and is gradually replaced by more skillful types of resistance (e.g., negotiation; Kuczynski, Kochanska, Radke-Yarrow, & Girmius-Brown, 1987). Moreover, whereas unskillful defiance is predictive of problem behavior, more skillful ways of resisting parental authority relate to favorable relational outcomes (e.g., Dix, Stewart, Gershoff, & Day, 2007; Kuczynski & Kochanska, 1990). Similarly, in a qualitative study among adolescents, Parkin and Kuczynski (2012) identified a variety of strategies for expressing resistance, ranging from overt behavioral strategies to covert cognitive strategies.

Herein, we focused on one particular subtype of defiance, that is, oppositional defiance to parental authority, which refers to a blunt rejection of parental rules and a tendency to do the opposite of what parents expect (Deci & Ryan, 1985; Skinner & Edge, 2002; Vansteenkiste & Ryan, 2013). This type of defiance is oppositional and reactive in nature because the primary goal is to oppose the parents' goals (cf. Koestner & Losier, 1996). As there is limited willingness for accommodation or negotiation about the parents' goals, oppositional defiance is assumed to be an unskillful way of expressing resistance against parents (Parkin & Kuczynski, 2012). In line with this reasoning, cross-sectional research found oppositional defiance to parental rules to relate to more internalizing and externalizing problems (Van Petegem, Soenens, Vansteenkiste, & Beyers, 2014). The present longitudinal study extends previous cross-sectional work by examining developmental changes in oppositional defiance to parental rules, as well as its consequences across time for adolescent autonomy.

This article was published Online First November 24, 2014.

Stijn Van Petegem, Maarten Vansteenkiste, Bart Soenens, Wim Beyers, and Nathalie Aelterman, Department of Developmental, Personality and Social Psychology, Ghent University.

Correspondence concerning this article should be addressed to Stijn Van Petegem, Department of Developmental, Personality and Social Psychology, Ghent University, Henri Dunantlaan 2, B-9000 Ghent, Belgium. E-mail: Stijn.VanPetegem@UGent.be (www.vopspsy.ugent.be)

The question of whether oppositional defiance predicts more autonomy is important because oppositional defiance is said to function as a mechanism to cope with autonomy frustration (Skinner & Edge, 2002; Skinner, Edge, Altman, & Sherwood, 2003). For instance, oppositional behavior is assumed to emerge when adolescents feel controlled by their parents. Longitudinal research indeed found autonomy-suppressing (i.e., controlling) parenting to predict increases in oppositional defiance to parental rules (Vansteenkiste, Soenens, Van Petegem, & Duriez, 2014). However, an unanswered question is whether oppositional defiance to parental rules represents a successful strategy to regain a sense of autonomy and to establish more freedom in the parent–child relationship across time. We hypothesized that the answer to this question would depend on how autonomy is conceptualized.

Two Conceptualizations of Autonomy

In the developmental literature, the issue of adolescent autonomy is a highly debated topic (e.g., Beyers, Goossens, Vansant, & Moors, 2003; Ryan & Lynch, 1989; Zimmer-Gembeck & Collins, 2003), which is partly due to conceptual and operational confusion around the concept. In an attempt to clarify some of this confusion, recent research has identified two orthogonal dimensions that underlie a broad range of operationalizations of autonomy (Hmel & Pincus, 2002; Van Petegem, Vansteenkiste, & Beyers, 2013).

The first dimension reflects the degree to which adolescents experience a sense of *volition* and psychological freedom in their actions. This conceptualization of autonomy is rooted in self-determination theory (SDT; Deci & Ryan, 1985, 2000). When behaving autonomously, adolescents act upon goals and interests they genuinely value and experience a sense of personal relevance and authenticity in their actions. Freedom then is achieved intrapsychically and is manifested through people's feelings of *freedom* to be themselves and to act upon self-endorsed values and goals (Gescinska, 2011; Zimmer-Gembeck & Collins, 2003). Setting limits does not necessarily forestall this inner sense of freedom and authenticity, as adolescents may come to concur with the imposed limits and accept them as their own (Koestner, Ryan, Bernieri, & Holt, 1984; Vansteenkiste et al., 2014).

The second dimension reflects the degree to which adolescents experience *interpersonal distance* or separateness from their parents (e.g., Hoffman, 1984; Kagitçibasi, 2005), which is contrasted with their feelings of proximity toward their parents. Autonomously functioning adolescents would display a strong desire for emotional boundaries and would rather avoid closeness with their parents (Van Petegem et al., 2013). In other words, youngsters high on this dimension only would feel free as far as they are *freed from* regulations, restrictions, and emotional ties with their parents (Gescinska, 2011; Zimmer-Gembeck & Collins, 2003). Therefore, autonomy requires loosening external constraints and turning away from the parents emotionally, such that an *absolute* sense of freedom is achieved.

The conceptualization of autonomy as distance taking resembles older developmental perspectives on autonomy (e.g., Freud, 1958). Yet, contemporary developmental viewpoints on autonomy, which are more nuanced (e.g., Allen, Hauser, Bell, & O'Connor, 1994; Cooper & Grotevant, 2011; Smetana, Campione-Barr, & Daddis, 2004), can also be located in the two-dimensional framework identified by Van Petegem et al. (2013). To illustrate, adolescent

independent decision making, which has received substantial attention in the literature (e.g., Smetana et al., 2004), pertains to the question of who decides about a variety of issues. It can range from parent-alone decision making (reflecting total dependence) to youth-alone decision making (reflecting total independence). In the two-dimensional framework, independent decision making loaded positively on the two identified dimensions. Thus, independent decision making implies both maintaining distance from the parents and behaving volitionally. In other words, independent decision making would involve distance taking guided by genuine values and interests (for a more elaborate discussion, see, e.g., Van Petegem et al., 2013; Zimmer-Gembeck & Collins, 2003).

The importance of distinguishing between these two different conceptualizations of autonomy is underscored by research documenting their differential correlates with adolescent adjustment. Distance taking often yields a complex pattern of relations with psychosocial adjustment, as the associations appear to be qualified by age of the participant, the specific outcome at hand, and the context in which distance taking occurs (e.g., Dishion, Nelson, & Bullock, 2004; Fuhrman & Holmbeck, 1995; Zimmer-Gembeck & Collins, 2003). Too much distance taking too early in adolescence may be particularly problematic and at odds with maintaining a warm relationship with the parents (e.g., Collins & Steinberg, 2006; Montemayor, 1986; Smetana, 1996). Experiencing a sense of volition, on the other hand, has been found to be unequivocally beneficial for adolescents' adjustment (e.g., Ryan, Deci, Grolnick, & LaGuardia, 2006; Ryan & Lynch, 1989; Vansteenkiste, Niemiec, & Soenens, 2010). Apart from their different adjustment correlates, we argue herein that the distinction between volition and distance is also critical to understand, whether or not oppositional defiance to parental rules predicts more adolescent autonomy.

Does Oppositional Defiance Yield More Autonomy?

With a conceptualization of autonomy as interpersonal distance from parents, we expected oppositional defiance to parental rules to relate to increased autonomy across time. This is because parental rules and authority are bluntly rejected in favor of an independent orientation in life where one is freed from any emotional ties with the parents. Hence, adolescents high on oppositional defiance would turn away emotionally from their parents, as manifested in increases in interpersonal distance taking. This hypothesis is consistent with previous research showing that unskillful resistance in young children comes with a relational cost (e.g., Crockenberg & Litman, 1990; Kuczynski & Kochanska, 1990).

In contrast, we expected oppositional defiance to predict decreases in volitional functioning because oppositional defiance would hinder adolescents to act upon personally endorsed values and preferences (Pavey & Sparks, 2009). This is because adolescents high in oppositional defiance do not accommodate their own goals with those of their parents (cf. Kuczynski & Hildebrandt, 1997). Instead, their primary aim is to oppose the parents' goals. Hence, in the long run, this tendency to revolt against parental restrictions and expectations would, ironically, interfere with the capacity to act upon genuinely valued goals and interests (Deci & Ryan, 1985; Skinner & Edge, 2002).

Consistent with these hypotheses, cross-sectional research has shown that oppositional defiance to parental rules related posi-

tively to interpersonal distance and negatively to volitional functioning (Van Petegem et al., 2013). However, longitudinal research is needed to document the direction of effects among oppositional defiance, interpersonal distance and volitional functioning. To date, it is unclear whether oppositional defiance is rooted in a distant relationship with the parents, whether such distance taking rather is an outcome of oppositional defiance to parents, or whether the association is bidirectional in nature (Sameroff & Fiese, 2000). Similarly, although the work of Pavey and Sparks (2009) suggested that oppositional defiance would predict a lowered sense of volition, oppositional defiance also may be an outcome of reduced volitional functioning (Skinner & Edge, 2002; Vansteenkiste & Ryan, 2013). Hence, we also examined the possibility of bidirectional relations between oppositional defiance and volition.

Developmental Trends

The longitudinal design also provided an opportunity to document developmental trends in our central variables. To the best of our knowledge, no research to date has explicitly examined developmental trends in oppositional defiance to parental rules among middle and late adolescents. Research among young children has shown decreases in unskillful types of resistance as children grow older, which likely is due to successful socialization (Dix et al., 2007; Kuczynski et al., 1987; Kuczynski & Kochanska, 1990). We expected to find similar decreases in oppositional defiance to parental authority in our sample of middle and late adolescents.

As for adolescents' distance-taking, there exists some indirect evidence for a specific pattern of developmental changes. That is, interpersonal distancing is expected to decline from middle to late adolescence because youngsters report more positive affect when interacting with their family during the late adolescent years (e.g., Larson, Richards, Moneta, Holmbeck, & Duckett, 1996; Shannah, McHale, Crouter & Osgood, 2007). In general, the relationship with parents tends to improve and to become more supportive throughout late adolescence (e.g., De Goede, Branje, & Meeus, 2009). Therefore, we expected declines in interpersonal distancing across time.

Finally, as for volitional functioning, SDT scholars argue that, with increasing age, people experience a greater sense of volition in their actions due to their increasing awareness and understanding of their personal values and interests (Kasser & Ryan, 1996; Vansteenkiste et al., 2010). Although cross-sectional research among adults (ranging in age between 17 and 82 years) has supported this assumption (Sheldon & Kasser, 2001), longitudinal research focusing specifically on adolescence is lacking.

The Present Study

The first aim of this longitudinal study was to investigate developmental changes in oppositional defiance, interpersonal distance, and volitional functioning. Although the developmental period of middle to late adolescence is likely characterized by substantial change in these constructs, longitudinal research addressing these changes is relatively scarce. We expected oppositional defiance to parental rules and interpersonal distance from the parents to decrease as adolescents grew older, whereas volition was predicted to increase with age. The second aim was to exam-

ine longitudinal associations between the key study variables, thereby examining directionality of effects. We expected oppositional defiance to predict increases in interpersonal distance and decreases in volitional functioning. We also tested whether, conversely, interpersonal distance and volitional functioning would predict changes in oppositional defiance. Finally, to examine the robustness of our findings, we tested whether the hypothesized associations would hold true among both middle and late adolescents and among boys and girls.

Method

Participants and Procedure

Participants were 368 adolescents, who ranged between 14 and 20 years at Time 1 ($M = 16.7$, $SD = 1.13$; 61% girls [224 girls]). Most participants (80% [295 adolescents]) came from intact families. As for education, 66% (241 adolescents), 22% (81 adolescents), and 12% (44 adolescents) followed, respectively, an academic, technical, and vocational track, which is similar to the population statistics of middle to late adolescents in Belgium (Goossens & Luyckx, 2007). Data were gathered during a regular class period at four high schools with mainly middle-class students. Participation was voluntary and confidential treatment of the data was guaranteed through a standard informed consent form. Two years later, participants were contacted again through e-mail as well as through regular mail. At this time point, 236 adolescents (61%) participated again. Little's (1988) missing completely at random (MCAR) test turned out nonsignificant (normed $\chi^2 = 1.68$), indicating that drop-out likely occurred at random. Hence, the missing data were dealt with through the expectation maximization (Schafer, 1997) algorithm for analyses with manifest variables and through full-information maximum likelihood (Enders & Bandalos, 2001) for analyses with latent variables.

Measures

Each questionnaire was administered at both waves. All items were answered on a 5-point Likert-scale, ranging from 1 (*completely not true*) to 5 (*completely true*).

Oppositional defiance. Adolescents' oppositional defiance to parental rules was measured with a recently developed measure (Van Petegem et al., 2013; Vansteenkiste et al., 2014). The scale has eight items (e.g., "I do exactly the opposite of what my parents expect me to do," "I rebel against the rules of my parents" and "My parents' rules are no concern of mine: I do as I please") and it has been shown to be reliable and valid in previous research (e.g., Van Petegem et al., 2013). In the current study, the measure was also internally consistent ($\alpha = .85$ and $.86$ at Times 1 and 2, respectively).

Interpersonal distance. Adolescents' interpersonal distance from parents was measured through the Emotional Independence subscale of the Psychological Separation Inventory (Hoffman, 1984), which assesses adolescents' absence of needing parental closeness and emotional support. A sample item reads "Being away from my parents makes me feel lonely" (reverse coded). Herein, we used a previously validated 10-item version of the questionnaire (e.g., Luyckx, Goossens, Soenens, & Beyers, 2006).

The scale had adequate reliability in the current study ($\alpha = .85$ and $.86$).

Volitional functioning. We tapped into adolescents' experiences of volition through the Choicefulness subscale of the Self-Determination Scale (Sheldon, Ryan & Reis, 1996). This 5-item scale was designed to assess individual differences in the extent to which people experience personal choice in their actions (e.g., "I do what I do because it interests me."). The scale was found to be psychometrically adequate and valid in previous research (e.g., Sheldon et al., 1996; Soenens et al., 2007). In the present study, Cronbach's alphas were $.73$ and $.79$.

Results

Aim 1: Developmental Changes

Table 1 presents descriptive statistics and correlations between the variables at each time point. After splitting our sample into a group of middle (14–16 years, $N = 153$, 39.5%) and late adolescents (17–20 years, $N = 215$, 60.5%; Berk, 2014), we performed a repeated-measures MANOVA to test for changes across time in the key variables by adding age group as a between-subjects factor, and time point and the interaction between time point and age group as within-subject factors. Significant multivariate differences were found for age group, $F(3, 364) = 14.10$, $p < .001$, $\eta^2 = .10$, time point, $F(3, 364) = 26.28$, $p < .001$, $\eta^2 = .18$ and for the interaction between both, $F(3, 364) = 5.57$, $p < .01$, $\eta^2 = .04$. As for age group, significant differences were obtained for oppositional defiance, $F(1, 366) = 19.37$, $p < .001$, $\eta^2 = .05$ and volitional functioning, $F(1, 366) = 12.36$, $p < .001$, $\eta^2 = .07$, but not for interpersonal distance, $F(1, 366) < 1$, *ns*. Compared with late adolescents, middle adolescents reported more oppositional defiance ($M_{\text{middle}} = 2.34$ vs. $M_{\text{late}} = 2.12$) and less volitional functioning ($M_{\text{middle}} = 3.67$ vs. $M_{\text{late}} = 3.94$). Further, as for time-related changes, an average change across the two years was observed in oppositional defiance, $F(1, 366) = 43.99$, $p < .001$, $\eta^2 = .11$, volitional functioning, $F(1, 366) = 10.78$, $p < .01$, $\eta^2 = .03$ and interpersonal distance, $F(1, 366) = 18.47$, $p < .001$, $\eta^2 = .05$. Compared with Time 1, adolescents reported less oppositional defiance ($M_{T1} = 2.31$ vs. $M_{T2} = 2.15$), more volitional functioning ($M_{T1} = 3.76$ vs. $M_{T2} = 3.85$), and less interpersonal distance ($M_{T1} = 3.70$ vs. $M_{T2} = 3.59$) at Time 2. We consider it important that the latter finding was qualified by the interaction between time and age group, $F(1, 366) = 15.62$, $p < .001$, $\eta^2 = .04$: The decline

in interpersonal distance was observed for late ($M_{T1} = 3.74$ vs. $M_{T2} = 3.54$), but not for middle adolescents. The time by age group interaction was not significant for oppositional defiance, $F(1, 366) = 1.36$, *ns* and volitional functioning, $F(1, 366) < 1$, *ns*.

The same MANOVA also revealed a significant multivariate gender effect, $F(3, 362) = 4.95$, $p < .01$, $\eta^2 = .04$, with boys reporting significantly more interpersonal distance, $F(1, 364) = 8.57$, $p < .01$, $\eta^2 = .02$; $M_{\text{boys}} = 3.76$, $M_{\text{girls}} = 3.58$. No gender differences were found for volitional functioning, $F(1, 364) = 3.57$, $p > .05$, nor for oppositional defiance, $F(1, 364) = 1.26$, *ns*. There were no significant interactions between gender and time point or between gender, time point, and age group, suggesting that reported changes across time are similar for boys and girls.

Aim 2: Structural Relations

To examine the longitudinal associations between our variables, we used cross-lagged modeling through structural equation modeling (SEM), with Mplus software (Version 7.00; Muthén & Muthén, 2012). We corrected for the nonnormality observed in some of the variables (see Table 1) through robust maximum likelihood estimation (MLR). We modeled each study variable as a latent variable represented by three parcels, which we created through a random selection of items from the corresponding scale. Evaluation of model fit was based on the chi-square index and the combined cutoff of $.06$ for the root-mean-square error of approximation (RMSEA) and $.08$ for the standardized root-mean-square residual (SRMR). Moreover, a comparative fit index (CFI) of $.95$ or higher also indicates a good fit (Marsh, Hau, & Wen, 2004).

First, we estimated the measurement model. Factor loadings were set equal across time and measurement errors of the same indicators were allowed to covary (Burkholder & Harlow, 2003). This model yielded a good fit, $\chi^2(117) = 135.99$, *ns*; CFI = $.99$, RMSEA = $.02$, SRMR = $.06$, with all indicators loading high on their respective latent variables (ranging between $.56$ and $.85$, all $ps < .001$). Then, we tested the structural cross-lagged model, which included (a) stability coefficients for all constructs (i.e., autoregressive paths), (b) within-time correlations between the variables, and (c) cross-lagged paths between each of the constructs. In doing so, we controlled for gender and initial age. The structural model fit the data well, $\chi^2(147) = 219.12$, $p < .001$; CFI = $.96$, RMSEA = $.04$, SRMR = $.06$, and is presented in Figure 1. As for the within-time correlations, oppositional defiance at Time 1 was associated with more interpersonal distance and less

Table 1
Means, Standard Deviations, Nonnormality Coefficients and Correlations Among the Study Variables

Variable	Mean	SD	S	K	1	2	3	4	5
1. Oppositional defiance T1	2.29	.60	.45	.37					
2. Oppositional defiance T2	2.12	.49	.56	1.50	.57***				
3. Interpersonal distance T1	3.71	.67	-.23	-.28	.32***	.27**			
4. Interpersonal distance T2	3.59	.55	.00	.08	.40***	.52***	.64***		
5. Volitional functioning T1	3.78	.62	-.34	.12	-.15*	-.28**	-.07	-.15	
6. Volitional functioning T2	3.87	.48	-.30	.85	-.30**	-.30**	-.09	-.22*	.53***

Note. S = skewness; K = kurtosis; T1 = Time 1; T2 = Time 2.
* $p < .05$. ** $p < .01$. *** $p < .001$.

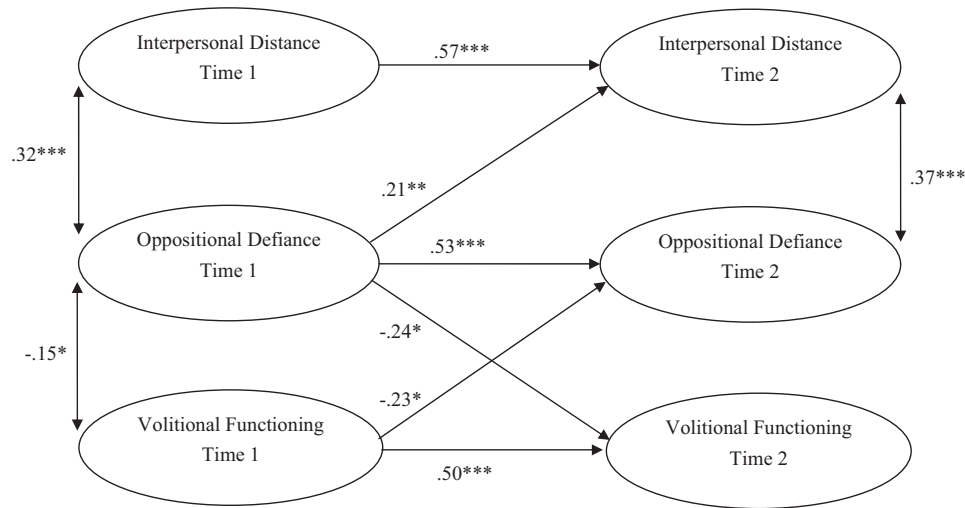


Figure 1. Cross-lagged model depicting the associations between oppositional defiance, interpersonal distance, and volitional functioning. Standardized coefficients are depicted. For clarity reasons, nonsignificant paths and background variables are not presented. * $p < .05$. ** $p < .01$. *** $p < .001$.

volitional functioning at Time 1. Oppositional defiance at Time 2 also related to more interpersonal distance at Time 2. More important, in terms of cross-lagged associations, oppositional defiance at Time 1 predicted relative increases in interpersonal distance and decreases in volitional functioning. Conversely, higher levels of volitional functioning at Time 1 predicted relative decreases in oppositional defiance. No associations were found between interpersonal distance and volitional functioning, neither within nor across time.¹

We tested whether the structural model would hold across age group and gender through multigroup comparisons. Comparison of the unconstrained and constrained models was based on the difference in chi-square ($\Delta\chi^2$), which should be nonsignificant, and the difference in CFI (ΔCFI), which should be lower than .01 (Cheung & Rensvold, 2002). We first tested for measurement equivalence by comparing a freely estimated (unconstrained) model with a constrained one, where the factor loadings are set equal across groups. When measurement invariance was obtained, we tested for structural equivalence by comparing an unconstrained model (where all structural paths were set free) with a constrained model (with all paths set equal across groups). For both age and gender, multigroup comparison provided evidence for measurement equivalence, $\Delta\chi^2(9) = 6.62$, *ns*, $\Delta CFI = .001$; $\Delta\chi^2(9) = 6.11$, *ns*, $\Delta CFI = .001$; for age and gender, respectively, indicating that the scales have a similar meaning in the two age groups and for both boys and girls. In addition, we obtained evidence for structural equivalence across age group and gender, $\Delta\chi^2(15) = 10.55$, *ns*, $\Delta CFI = .002$; $\Delta\chi^2(15) = 5.77$, *ns*, $\Delta CFI = .005$, suggesting that the obtained structural relations in Figure 1 are similar across middle and late adolescents and for boys and girls.

Discussion

Does oppositional defiance to parental authority yield more autonomy and freedom for middle and late adolescents? This

longitudinal study aimed to shed a nuanced light on this question by differentiating between two conceptualizations of autonomy, that is, autonomy as distance and autonomy as volition (Ryan & Lynch, 1989). This distinction is reminiscent of the distinction between two conceptualizations of freedom that were forwarded decades ago in philosophical accounts (Berlin, 1958; Fromm, 1941, 1947). On the one hand, autonomy as interpersonal distance (referred to as *freedom from* in philosophical writings) refers to the absence of any kind of external limits or interference by authority figures. Autonomy as volition, on the other hand, pertains to experiencing the *freedom to* actualize one's genuine interests and to realize one's potential. In other words, one is acting autonomously when one's thoughts and actions are experienced as expressing one's free will (Gescinska, 2011; Ryan & Deci, 2006). The results of our study confirm that such a differentiated conceptualization of autonomy and freedom is crucial for understanding both the developmental changes characterizing middle and late adolescence, as well as whether oppositional defiance yields more autonomy across time.

As for developmental changes, middle and late adolescents on average reported less oppositional defiance to parental authority as they grew older. This finding provides support for the notion that unskillful strategies of exhibiting resistance decline with age, as children and adolescents gradually develop less defensive and more constructive ways of expressing their resistance (e.g., Dix et al., 2007; Kuczynski & Kochanska, 1990; Parkin & Kuczynski,

¹ In a supplementary analysis, we tested whether the associations obtained were driven by a few adolescents scoring very high on oppositional defiance to parental rules. It might be the case that, for oppositional defiance to yield its effect, it should surpass a certain threshold. To do so, we tested for curvilinear associations in Mplus, thereby additionally modeling a curvilinear factor of oppositional defiance (at T1) as a predictor of volitional functioning and interpersonal distance (at T2). Yet, these associations did not reach significance ($t = -1.28$, $p = .20$, for volitional functioning; $t = 0.53$, $p = .60$, for interpersonal distance).

2012). Further, there were average decreases in interpersonal distance among late adolescents, but not among middle adolescents. This observation is consistent with previous work documenting developmental changes in closeness in the parent–child relationship (Collins & Steinberg, 2006; Larson et al., 1996). That is, even though interpersonal distance peaks during the early adolescent years, distancing levels off during middle adolescence and the parent–child relationship becomes closer and more supportive again throughout the late adolescent years. Thus, it seems that late adolescents exhibit a reduced tendency to pursue freedom from their parents as they grow older. We found it interesting that, at the same time, both middle and late adolescents reported experiencing more volition in their actions as they grew older. In other words, it seems that adolescents felt increasingly free to act upon the goals and interests they personally valued. Indeed, it has been argued that, with increasing age, people become more aware of their genuinely endorsed goals and are more skilled to act in accordance with them (Sheldon & Kasser, 2001). This developmental change would be indicative of individuals' growth orientation, that is, the tendency to evolve toward increasing self-actualization and integration (Fromm, 1941; Ryan & Deci, 2006; Vansteenkiste et al., 2010).

As expected, the cross-lagged longitudinal analyses showed that the answer to the question of whether oppositional defiance yields more autonomy depended on the conceptualization of autonomy. The answer is positive when autonomy is equated with freedom from the parents, as adolescents high on oppositional defiance reported relative increases in interpersonal distance from their parents across time. Presumably, adolescents high in oppositional defiance fail to consider and are unable to accommodate their parents' viewpoints (cf. Kuczynski & Hildebrandt, 1997; Parkin & Kuczynski, 2012). Therefore, they would turn away and further loosen the emotional ties with their parents. Yet, when autonomy is conceived as adolescents' capacity to enact their genuinely endorsed values and interests, oppositional defiance was found to predict less autonomy. That is, adolescents high in oppositional defiance reported a decreased freedom to pursue their interests and personal preferences as they grew older. In other words, it seems that oppositional defiance comes at the expense of acting in a volitional way (Deci & Ryan, 1985; Pavey & Sparks, 2009).

We found it interesting that the longitudinal relation between oppositional defiance and volitional functioning was bidirectional. Volitionally functioning adolescents reported becoming less defiant against parental rules across time. This finding is in line with the notion that people's awareness of their true values and interests may function as a buffer against the use of defensive and unskillful behavioral patterns, such as oppositional defiance (Hodgins & Knee, 2002; Vansteenkiste & Ryan, 2013). Likely, highly volitional adolescents are better able to engage in more constructive ways of exhibiting resistance, though future research is needed to test this hypothesis. Another interpretation is that adolescents scoring low on volitional functioning experience a lot of pressure and coercion, although the latter experiences were not assessed explicitly. In that case, adolescents' increases in oppositional defiance to parental authority may represent a coping strategy to deal with the experienced pressure (Skinner & Edge, 2002; Skinner et al., 2003).

Limitations and Directions for Future Research

This study has a number of limitations that can be addressed in future research. First, given that we focused exclusively on oppositional defiance as one type of resistance, future research could focus on more constructive ways of defiance, such as negotiation and assertiveness (Kuczynski & Hildebrandt, 1997; Parkin & Kuczynski, 2012). Further, it is unclear exactly which parental rules adolescents defy. Future research therefore could pay attention to the content of parental rules, for instance by contrasting defiance about personal versus moral issues (Smetana et al., 2004) or by focusing on within-person variability in defiance (Kuhn, Phan, & Laird, 2014). A third limitation involves the relative homogeneity of our sample in terms of socioeconomic status, ethnicity, and cultural background. For instance, adolescents growing up in more relatedness-oriented cultures might express their resistance to parental authority in a more secretive way because values such as loyalty and honesty vis-à-vis the parents may prevent them from bluntly defying parental authority (Markus & Kitayama, 2003; Triandis, 1996). Finally, the sole reliance on self-report questionnaires may be overcome through a multi-informant design or by conducting interviews, which may yield more detailed insight into the multidimensional nature of adolescent defiance (Parkin & Kuczynski, 2012).

Conclusion

The present longitudinal study provided a nuanced answer to the question of whether oppositional defiance yields more freedom. Oppositionally defiant adolescents appear to be successful at breaking free from their parents. Yet, oppositional defiance does not engender a true sense of psychological freedom and authenticity, because oppositionally defiant adolescents also reported feeling increasingly less free to pursue the goals and values they genuinely endorse.

References

- Allen, J. P., Hauser, S. T., Bell, K. L., & O'Connor, T. G. (1994). Longitudinal assessment of autonomy and relatedness in adolescent–family interactions as predictors of adolescent ego development and self-esteem. *Child Development, 65*, 179–194. <http://dx.doi.org/10.2307/1131374>
- Arnett, J. J. (1999). Adolescent storm and stress, reconsidered. *American Psychologist, 54*, 317–326. <http://dx.doi.org/10.1037/0003-066X.54.5.317>
- Berk, L. E. (2014). *Development across the lifespan* (6th ed.). Boston, MA: Pearson.
- Berlin, I. (1958). *Two concepts of liberty*. Oxford, UK: Oxford University Press.
- Beyers, W., Goossens, L., Vansant, I., & Moors, E. (2003). A structural model of autonomy in middle and late adolescence: Connectedness, separation, detachment, and agency. *Journal of Youth and Adolescence, 32*, 351–365. <http://dx.doi.org/10.1023/A:1024922031510>
- Burkholder, G. J., & Harlow, L. L. (2003). An illustration of a longitudinal cross-lagged design for larger structural equation models. *Structural Equation Modeling, 10*, 465–486. http://dx.doi.org/10.1207/S15328007SEM1003_8
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling, 9*, 233–255. http://dx.doi.org/10.1207/S15328007SEM0902_5
- Collins, W. A., & Steinberg, L. (2006). Adolescent development in inter-

- personal context. In W. Damon & R. Lerner (Eds.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (6th ed., pp. 1003–1067). New York, NY: Wiley.
- Cooper, C. R., & Grotevant, H. D. (2011). Autonomy or connections? Identities as intergenerational projects. In C. R. Cooper (Ed.), *Bridging multiple worlds: Cultures, identities, and pathways to college* (no pagination). New York, NY: Oxford University Press. <http://dx.doi.org/10.1093/acprof:oso/9780195080209.003.0003>
- Crockenberg, S., & Litman, C. (1990). Autonomy as competence in 2-year olds: Maternal correlates of child defiance, compliance, and self-assertion. *Developmental Psychology*, 26, 961–971. <http://dx.doi.org/10.1037/0012-1649.26.6.961>
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum Press. <http://dx.doi.org/10.1007/978-1-4899-2271-7>
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268. http://dx.doi.org/10.1207/S15327965PLI1104_01
- De Goede, I. H. A., Branje, S. J. T., & Meeus, W. H. J. (2009). Developmental changes in adolescents’ perceptions of relationships with their parents. *Journal of Youth and Adolescence*, 38, 75–88. <http://dx.doi.org/10.1007/s10964-008-9286-7>
- Dishion, T. J., Nelson, S. E., & Bullock, B. M. (2004). Premature adolescent autonomy: Parent disengagement and deviant peer process in the amplification of problem behaviour. *Journal of Adolescence*, 27, 515–530. <http://dx.doi.org/10.1016/j.adolescence.2004.06.005>
- Dix, T., Stewart, A. D., Gershoff, E. T., & Day, W. H. (2007). Autonomy and children’s reactions to being controlled: Evidence that both compliance and defiance may be positive markers in early development. *Child Development*, 78, 1204–1221. <http://dx.doi.org/10.1111/j.1467-8624.2007.01061.x>
- Enders, C. K., & Bandalos, D. L. (2001). The relative performance of full information maximum likelihood estimation for missing data in structural equation modeling. *Structural Equation Modeling*, 8, 430–457. http://dx.doi.org/10.1207/S15328007SEM0803_5
- Freud, A. (1958). Adolescence. In A. Freud (Ed.), *The writings of Anna Freud: Research at the Hampstead Child-Therapy Clinic and other papers. 1956–1965* (Vol. 5, pp. 136–166). New York, NY: International Universities Press.
- Fromm, E. (1941). *Escape from freedom*. New York, NY: Rinehart & Co.
- Fromm, E. (1947). *Man for himself: An inquiry into the psychology of ethics*. New York, NY: Rinehart & Co.
- Fuhrman, T., & Holmbeck, G. N. (1995). A contextual-moderator analysis of emotional autonomy and adjustment in adolescence. *Child Development*, 66, 793–811. <http://dx.doi.org/10.2307/1131951>
- Gescinska, A. (2011). *De verovering van de vrijheid [The conquest of freedom]*. Rotterdam, the Netherlands: Lemniscaat.
- Goossens, L., & Luyckx, K. (2007). Belgium. In J. J. Arnett (Ed.), *International encyclopedia of adolescence* (pp. 64–76). New York, NY: Routledge.
- Hmel, B. A., & Pincus, A. L. (2002). The meaning of autonomy: On and beyond the interpersonal circumplex. *Journal of Personality*, 70, 277–310. <http://dx.doi.org/10.1111/1467-6494.05006>
- Hodgins, H. S., & Knee, C. R. (2002). The integrating self and conscious experience. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 87–100). Rochester, NY: Rochester University Press.
- Hoffman, J. A. (1984). Psychological separation of late adolescents from their parents. *Journal of Counseling Psychology*, 31, 170–178. <http://dx.doi.org/10.1037/0022-0167.31.2.170>
- Kagitçibasi, C. (2005). Autonomy and relatedness in cultural context: Implications for self and family. *Journal of Cross-Cultural Psychology*, 36, 403–422. <http://dx.doi.org/10.1177/0022022105275959>
- Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Well-being correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, 22, 280–288. <http://dx.doi.org/10.1177/0146167296223006>
- Koestner, R., & Losier, G. F. (1996). Distinguishing reactive versus reflective autonomy. *Journal of Personality*, 64, 465–494. <http://dx.doi.org/10.1111/j.1467-6494.1996.tb00518.x>
- Koestner, R., Ryan, R. M., Bernieri, F., & Holt, K. (1984). Setting limits on children’s behavior: The differential effects of controlling vs. informational styles on intrinsic motivation and creativity. *Journal of Personality*, 52, 233–248. <http://dx.doi.org/10.1111/j.1467-6494.1984.tb00879.x>
- Kuczynski, L., & Hildebrandt, N. (1997). Models of conformity and resistance in socialization theory. In J. E. Grusec & L. Kuczynski (Eds.), *Parenting and children’s internalization of values: A handbook of contemporary theory* (pp. 227–256). Hoboken, NJ: Wiley.
- Kuczynski, L., & Kochanska, G. (1990). Development of children’s non-compliance strategies from toddlerhood to age 5. *Developmental Psychology*, 26, 398–408. <http://dx.doi.org/10.1037/0012-1649.26.3.398>
- Kuczynski, L., Kochanska, G., Radke-Yarrow, M., & Girmius-Brown, O. (1987). A developmental interpretation of young children’s non-compliance. *Developmental Psychology*, 23, 799–806. <http://dx.doi.org/10.1037/0012-1649.23.6.799>
- Kuhn, E. S., Phan, J. M., & Laird, R. D. (2014). Compliance with parents’ rules: Between-person and within-person predictions. *Journal of Youth and Adolescence*, 43, 245–256. <http://dx.doi.org/10.1007/s10964-013-9965-x>
- Larson, R. W., Richards, M. H., Moneta, G., Holmbeck, G., & Duckett, E. (1996). Changes in adolescents’ daily interactions with their families from ages 10 to 18: Disengagement and transformation. *Developmental Psychology*, 32, 744–754. <http://dx.doi.org/10.1037/0012-1649.32.4.744>
- Little, R. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association*, 83, 1198–1202. <http://dx.doi.org/10.1080/01621459.1988.10478722>
- Luyckx, K., Goossens, L., Soenens, B., & Beyers, W. (2006). Unpacking commitment and exploration: Preliminary validation of an integrative model of late adolescent identity formation. *Journal of Adolescence*, 29, 361–378. <http://dx.doi.org/10.1016/j.adolescence.2005.03.008>
- Markus, H. R., & Kitayama, S. (2003). Models of agency: Sociocultural diversity in the construction of action. In V. Murphy-Berman & J. J. Berman (Eds.), *Nebraska Symposium on Motivation* (Vol. 49, pp. 1–58). Lincoln, NE: University of Nebraska Press.
- Marsh, H. W., Hau, K., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu and Bentler’s (1999) findings. *Structural Equation Modeling*, 11, 320–341. http://dx.doi.org/10.1207/s15328007sem1103_2
- Montemayor, R. (1986). Family variation in parent–adolescent storm and stress. *Journal of Adolescent Research*, 1, 15–31. <http://dx.doi.org/10.1177/074355488611003>
- Muthén, L. K., & Muthén, B. O. (2012). *Mplus user’s guide* (7th ed.). Los Angeles, CA: Authors.
- Parkin, C. M., & Kuczynski, L. (2012). Adolescent perspectives on rules and resistance within the parent-child relationship. *Journal of Adolescent Research*, 27, 632–658. <http://dx.doi.org/10.1177/0743558411435852>
- Pavey, L., & Sparks, P. (2009). Reactance, autonomy and paths to persuasion: Examining perceptions of threats to freedom and informational value. *Motivation and Emotion*, 33, 277–290. <http://dx.doi.org/10.1007/s11031-009-9137-1>
- Ryan, R. M., & Deci, E. L. (2006). Self-regulation and the problem of human autonomy: Does psychology need choice, self-determination, and

- will? *Journal of Personality*, 74, 1557–1586. <http://dx.doi.org/10.1111/j.1467-6494.2006.00420.x>
- Ryan, R. M., Deci, E. L., Grolnick, W. S., & LaGuardia, J. G. (2006). The significance of autonomy and autonomy support in psychological development and psychopathology. In D. Cicchetti & D. Cohen (Eds.), *Developmental psychopathology: Vol. 1. Theory and methods* (2nd ed., pp. 795–849). New York, NY: Wiley.
- Ryan, R. M., & Lynch, J. H. (1989). Emotional autonomy versus detachment: Revisiting the vicissitudes of adolescence and young adulthood. *Child Development*, 60, 340–356. <http://dx.doi.org/10.2307/1130981>
- Sameroff, A. J., & Fiese, B. H. (2000). Transactional regulation: The developmental ecology of early intervention. In J. P. Shonkoff & S. J. Meisels (Eds.), *Handbook of early childhood intervention* (pp. 135–159). New York, NY: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9780511529320.009>
- Schafer, J. L. (1997). *Analysis of incomplete multivariate data*. London, UK: Chapman & Hall. <http://dx.doi.org/10.1201/9781439821862>
- Shanahan, L., McHale, S. M., Crouter, A. C., & Osgood, D. W. (2007). Warmth with mothers and fathers from middle childhood to late adolescence: Within- and between-families comparisons. *Developmental Psychology*, 43, 551–563. <http://dx.doi.org/10.1037/0012-1649.43.3.551>
- Sheldon, K. M., & Kasser, T. (2001). Getting older, getting better? Personal strivings and psychological maturity across the life span. *Developmental Psychology*, 37, 491–501. <http://dx.doi.org/10.1037/0012-1649.37.4.491>
- Sheldon, K. M., Ryan, R., & Reis, H. T. (1996). What makes for a good day? Competence and autonomy in the day and in the person. *Personality and Social Psychology Bulletin*, 22, 1270–1279. <http://dx.doi.org/10.1177/01461672962212007>
- Skinner, E. A., & Edge, K. (2002). Self-determination, coping and development. In E. L. Deci & R. M. Ryan (Eds.), *Self-determination theory: Extensions and applications* (pp. 297–337). Rochester, NY: University of Rochester Press.
- Skinner, E. A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: A review and critique of category systems for classifying ways of coping. *Psychological Bulletin*, 129, 216–269. <http://dx.doi.org/10.1037/0033-2909.129.2.216>
- Smetana, J. G. (1996). Adolescent–parent conflict: Implications for adaptive and maladaptive development. In D. Cicchetti & S. Toth (Eds.), *Adolescence: Opportunities and challenges. Rochester Symposium on Developmental Psychopathology* (Vol. 7, pp. 1–46). Rochester, NY: University of Rochester Press.
- Smetana, J. G. (2005). Adolescent–parent conflict: Resistance and subversion as developmental process. In L. Nucci (Ed.), *Conflict, contradiction and contrarian elements in moral development and education* (pp. 69–91). Mahwah, NJ: Erlbaum.
- Smetana, J. G., Campione-Barr, N., & Daddis, C. (2004). Longitudinal development of family decision making: Defining healthy behavioral autonomy for middle-class African American adolescents. *Child Development*, 75, 1418–1434. <http://dx.doi.org/10.1111/j.1467-8624.2004.00749.x>
- Soenens, B., Vansteenkiste, M., Lens, W., Luyckx, K., Goossens, L., Beyers, W., & Ryan, R. M. (2007). Conceptualizing parental autonomy support: Adolescent perceptions of promotion of independence versus promotion of volitional functioning. *Developmental Psychology*, 43, 633–646. <http://dx.doi.org/10.1037/0012-1649.43.3.633>
- Steinberg, L., & Morris, A. S. (2001). Adolescent development. *Annual Review of Psychology*, 52, 83–110. <http://dx.doi.org/10.1146/annurev.psych.52.1.83>
- Triandis, H. C. (1996). The psychological measurement of cultural syndromes. *American Psychologist*, 51, 407–415. <http://dx.doi.org/10.1037/0003-066X.51.4.407>
- Van Petegem, S., Soenens, B., Vansteenkiste, M., & Beyers, W. (2014). Rebels with a cause? Adolescent defiance considered from the perspective of reactance theory and self-determination theory. *Child Development*. Manuscript provisionally accepted for publication.
- Van Petegem, S., Vansteenkiste, M., & Beyers, W. (2013). The jingle-jangle fallacy in adolescent autonomy in the family: In search of an underlying structure. *Journal of Youth and Adolescence*, 42, 994–1014. <http://dx.doi.org/10.1007/s10964-012-9847-7>
- Vansteenkiste, M., Niemiec, C. P., & Soenens, B. (2010). The development of the five mini-theories of self-determination theory: An historical overview, emerging trends, and future directions. In T. Urdan & S. Karabenick (Eds.), *The decade ahead: Theoretical perspectives on motivation and achievement* (pp. 105–165). Bradford, UK: Emerald Group Publishing. [http://dx.doi.org/10.1108/S0749-7423\(2010\)000016A007](http://dx.doi.org/10.1108/S0749-7423(2010)000016A007)
- Vansteenkiste, M., & Ryan, R. M. (2013). On psychological growth and vulnerability: Basic psychological need satisfaction and need frustration as a unifying principle. *Journal of Psychotherapy Integration*, 23, 263–280. <http://dx.doi.org/10.1037/a0032359>
- Vansteenkiste, M., Soenens, B., Van Petegem, S., & Duriez, B. (2014). Longitudinal associations between adolescent perceived style of parental prohibition and oppositional defiance and internalization. *Developmental Psychology*, 50, 229–236. <http://dx.doi.org/10.1037/a0032972>
- Zimmer-Gembeck, M. J., & Collins, W. A. (2003). Autonomy development during adolescence. In G. R. Adams & M. D. Berzonsky (Eds.), *Blackwell handbook of adolescence* (pp. 175–204). Oxford, England: Blackwell.

Received December 24, 2013

Revision received September 29, 2014

Accepted October 6, 2014 ■