



Antecedents of provided autonomy support and psychological control within close friendships: The role of evaluative concerns perfectionism and basic psychological needs



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ABSTRACT

Although receiving autonomy support within close friendships has been found to relate to higher levels of psychosocial well-being, less is known about why some friends are more autonomy supportive or controlling than others. The present study investigated the role of individuals' evaluative concerns perfectionism and experienced need satisfaction or frustration within the friendship as predictors of provided autonomy support and psychological control towards their best same-sex friend. Participants were 108 young adults ($M_{age} = 23.18$; $SD = 2.26$; 66.7% women) who reported on their level of evaluative concerns perfectionism, friendship need satisfaction and frustration, and provided friendship autonomy support and psychological control. Results showed that evaluative concerns perfectionism related positively to provided psychological control and negatively to provided autonomy support via, respectively, higher need frustration and lower need satisfaction.

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1. Introduction

Multiple previous studies indicated the beneficial effects of autonomy support (e.g., Ferguson, Kasser, & Jahng, 2011) and the detrimental effects of psychological control (e.g., Pettit, Laird, Dodge, Bates, & Criss, 2001) for the recipient's psychosocial functioning. Although previous studies mostly investigated these relations within vertical relationships (e.g., the parent-child relationship), similar findings have been reported within friendships (i.e., a horizontal relationship) (e.g., Deci, La Guardia, Moller, Scheiner, & Ryan, 2006; Padilla-Walker, Fraser, Black, & Bean, 2015). Less is known, however, about why some friends are more likely to provide autonomy support or psychological control within a close friendship. As evaluative concerns perfectionism (ECP) was found to relate to a higher level of provided parental psychological control (e.g., Soenens et al., 2005), we propose that ECP may also foster friends' engagement in less autonomy-supportive and more psychologically controlling interactions. Additionally, based on Self-Determination Theory (SDT; Deci & Ryan, 2000) and preliminary evidence linking ECP and need frustration (Boone, Vansteenkiste, Soenens, Van der Kaap-Deeder, & Verstuyf, 2014), we examined whether reduced or elevated levels of, respectively, need satisfaction or need frustration would

account for the relation between ECP and provided autonomy support or psychological control.

1.1. Autonomy support and psychological control in close friendships

Within SDT, a broad theory on motivation and socialization, autonomy support is characterized by the nurturance of volitional functioning (e.g., Grolnick, Ryan, & Deci, 1991). Autonomy-supportive friends take an active interest in and acknowledge the perspective of their friend. Doing so helps them to provide friend-attuned advice and to stimulate a sense of autonomy in their friend (Grolnick et al., 1991; Soenens & Vansteenkiste, 2010). In contrast, psychologically controlling friends minimize, ignore, or deny the friend's perspective, thereby imposing their own point of view by making use of a variety of psychologically intrusive strategies (e.g., guilt induction and shaming) (Barber, 1996; Soenens & Vansteenkiste, 2010).

Multiple studies within vertical relationships (with one figure having the authority; e.g., parent-child relationship) showed that whereas autonomy support contributes to the recipient's well-being including prosocial behavior and enjoyment (e.g., Ferguson et al., 2011), psychological control impedes this well-being and engenders feelings of ill-being including depressive symptoms and internalizing distress (e.g., Pettit et al., 2001) (for an overview see Vansteenkiste & Ryan, 2013). Fewer studies examined these constructs within friendships. These studies have shown that perceived autonomy support from friends related to both a higher relationship quality as well as a higher level of

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well-being (e.g., life satisfaction) (e.g., Deci et al., 2006; Kasser & Ryan, 1999). Regarding psychological control, only one study thus far examined this controlling style within the friendship relationship and showed a negative relation with prosocial behavior towards friends in general (Padilla-Walker et al., 2015).

1.2. The role of evaluative concerns perfectionism

As higher levels of autonomy support and lower levels of psychological control within friendships have been demonstrated to be vital for individuals' well-being, we deemed it important to investigate what processes foster such interaction styles. Herein we focused on ECP, which is characterized by doubts about one's performance, concerns about making mistakes, and harsh self-scrutiny (Blatt, 1995; Frost, Marten, Lahart, & Rosenblate, 1990). We expected that individuals high on ECP would be more likely to act less autonomy supportive (e.g., by being less in tune with their friend's feelings and needs) and more psychologically controlling towards their friend (e.g., by imposing their own agenda and displaying conditional regard) as they are more focused on maintaining a positive self-image than on experiencing interpersonal intimacy (Mongrain & Zuroff, 1995). Additionally, these individuals have been found to be rather competitive towards their friends (Santor & Zuroff, 1997), which further precludes their ability to foster their friend's volition functioning. There is some indirect evidence for this hypothesis showing ECP to be linked to interpersonal malfunctioning. For example, previous studies have found individuals scoring high on ECP to be more likely to perceive others to be critical and highly demanding (Blatt, 2008; Dunkley & Kyriakou, 2008), which can eventually impede the interpersonal bond (e.g., Van der Kaap-Deeder, Smets & Boone, 2016). Elevated levels of ECP have also been found to relate to lower levels of provided social support (Zuroff, Sadikaj, Kelly, & Leybman, 2016). Although no study thus far examined the relation between ECP and provided psychological control or autonomy support within the friendship relationship, several studies have shown a link between parental ECP and provided psychological control (e.g., Soenens et al., 2005). No study thus far examined the relation between ECP and provided autonomy support.

1.3. The mediating role of basic psychological need frustration and need satisfaction

Besides looking into the relation between ECP and provided friendship autonomy support and psychological control, we also investigated the mediating role of the basic psychological needs. Within SDT, it is stated that there are three basic psychological needs (i.e., autonomy, competence, and relatedness), of which the satisfaction is crucial for an optimal intrapersonal and interpersonal psychological functioning (Deci & Ryan, 2000; Vansteenkiste, Niemiec & Soenens, 2010). The need for autonomy concerns experiencing a sense of volition and choice when carrying out an activity. Regarding friendships, satisfaction of this need will show when individuals experience the freedom to express emotions in interaction with their friend, while this need will be frustrated when individuals feel forced to take part in certain activities with their friend. The need for competence entails the experience of mastery in executing daily activities. In close friendships, this need will be satisfied when individuals feel capable of resolving conflicts with their friend, while competence frustration will be apparent when individuals feel inadequate in supporting their friend. Finally, the need for relatedness signifies having warm and trusting relationships. Within friendships, the need for relatedness will be satisfied when individuals feel connected with and appreciated by their friend, while relatedness frustration will be evident when individuals feel rejected or excluded by their friend.

An abundance of studies (for an overview see Deci & Ryan, 2000; Vansteenkiste & Ryan, 2013) support the notion that satisfaction of the basic psychological needs relates positively to a variety of beneficial

outcomes (including greater engagement, vitality, and positive affect), while frustration of these needs has been found to relate to adverse outcomes (including depressive symptoms, disordered eating, and problem behavior). With respect to interpersonal functioning, several studies have shown that whereas need satisfaction as experienced within the friendship or in general relates to a better relationship quality (e.g., more happiness within the friendship; Demir & Davidson, 2013), need frustration compromises relationship functioning (e.g., Costa, Ntoumanis, & Bartholomew, 2015). Previous studies have also shown that need satisfaction and need frustration as experienced by one partner within a relationship relate to higher levels of, respectively, provided autonomy support and psychological control to the other relational partner (e.g., Stebbings, Taylor, Spray, & Ntoumanis, 2012; Van der Kaap-Deeder et al., 2015). However, no study thus far examined these links within friendships.

Within the current study, we propose that ECP relates to provided autonomy support and psychological control through processes of need satisfaction and need frustration. Up to our knowledge, only one study thus far directly examined the relation between ECP and the psychological needs. That is, Boone et al. (2014) found that ECP related to increases in need frustration (but was unrelated to need satisfaction) which, in turn, predicted increases in binge eating symptoms. Indirectly, previous studies have indicated that ECP relates to experiences of autonomy, competence, and relatedness frustration. For example, parental criticism was found to relate to lower levels of need satisfaction and increased need frustration (Brenning, Mabbe, Vansteenkiste, & Soenens, submitted for publication). Evaluative concerns perfectionists have also been found to display more pressured functioning, which is characterized by a lack of felt autonomy (Vansteenkiste et al., 2010). Additionally, ECP has been shown to relate to feelings of incompetence concerning a puzzle-task (Van der Kaap-Deeder, Soenens et al., 2016). Finally, ECP has been found to relate to higher levels of interpersonal distance (Habke & Flynn, 2002), indicating relatedness frustration.

1.4. The present study

The overall goal of this study was to examine the role of ECP and need-based experiences in provided psychological control and autonomy support towards friends. Specifically, we expected that ECP would relate to more provided psychological control via an increased level of need frustration and (to a lesser degree) a reduced level of need satisfaction, whereas an opposite pattern of relations was expected with respect to provided autonomy support. Recent empirical findings and theorizing (for an overview see Vansteenkiste & Ryan, 2013) suggest that whereas need satisfaction and autonomy support are particularly related to positive indicators of psychological functioning (i.e., 'bright pathway'), need frustration and psychological control are particularly related to maladjustment and psychopathology (i.e., 'dark pathway'). Therefore, we expected the path from ECP to provided psychological control via need frustration to be the most pronounced. As previous research found ECP to be significantly and positively related to perfectionistic strivings (e.g., Dunkley, Blankstein, Zuroff, Lecce, & Hui, 2006), we controlled for this construct in our analyses.

2. Method

2.1. Participants and procedure

Participants were 108 young adults ($M_{age} = 23.18$; $SD = 2.26$; range: 18–30 years). There were slightly more women (66.7%) than men. The highest level of education obtained was for 38.0% high school and for 62.1% higher education. Participants were recruited through social media, where a link to an online questionnaire was included. The questionnaires concerning friendship were filled out with respect to the participant's best same-sex friend, who was not their romantic

partner. We focused on same-sex friendships because friendships usually involve same-sex peers (e.g., Demir & Özdemir, 2010).

2.2. Measures

2.2.1. Perfectionism.

Three subscales from the Frost-Multidimensional Perfectionism Scale (Frost et al., 1990) were used to measure evaluative concerns and personal standards perfectionism. Specifically, we employed the Concerns over Mistakes (9 items, e.g., “People will think less of me if I make a mistake”) and Doubts about Actions (4 items, e.g., “It takes me a long time to do something right”) to assess ECP (Van der Kaap-Deeder, Soenens et al., 2016). Additionally, we used the Personal Standards subscale (7 items, e.g., “I have extremely high goals”). Items were answered on a Likert scale ranging from 1 (not at all true) to 5 (completely true). Both scales were reliable (evaluative concerns: $\alpha = 0.88$; personal standards: $\alpha = 0.81$) and comparable with previous research (e.g., α ranging between 0.76 and 0.89; Stallman & Hurst, 2011).

2.2.2. Friendship psychological need satisfaction and frustration.

Psychological need satisfaction (6 items; e.g., “When I am with my friend, I feel free to be who I am”) and frustration (3 items; e.g., “When I am with my friend, I often feel inadequate or incompetent”) as experienced within the friendship were assessed with a measure developed by La Guardi, Ryan, Couchman, and Deci (2000). As need frustration is rather underrepresented in this scale, we added 3 need frustration items from the widely used Basic Psychological Need Satisfaction and Need Frustration scale (Chen et al., 2015). These 3 items (i.e., 1 item per need) were slightly adapted to make these suitable for friendships. Attesting to the psychometric quality of these 3 added items, we found that these items were reliable ($\alpha = 0.71$) and correlated strongly ($r = 0.83$) with the 3 items of the friendship scale developed by La Guardi et al. (2000). All items were rated on a Likert scale ranging from 1 (completely disagree) to 7 (completely agree). Both the need satisfaction ($\alpha = 0.85$) and the need frustration ($\alpha = 0.80$) scale were reliable and comparable with previous research (e.g., need satisfaction: $\alpha = 0.90$; La Guardi et al., 2000 and need frustration: α ranging between 0.64 and 0.86; Chen et al., 2015).

2.2.3. Provided friendship autonomy support and psychological control.

The provided autonomy support within the friendship was assessed with 7 items (e.g., “My friend thinks that I try to understand how he/she sees things”) of the Friendship Autonomy Support Questionnaire (Deci et al., 2006). The provided psychological control within the friendship was assessed with an adapted version of the Psychological Control Scale – Youth Self-Report (PCSYSR; Barber, 1996). As this original scale refers to perceived parental psychological control, items were adapted to make them suitable for the friendship relationship and for provided (rather than received) psychological control. Additionally, 2 items of the PCSYSR were left out (e.g., “My mother blames me for other family members' problems”), as these were not suitable for friendships. In total, we employed 6 items. All items were rated on a

Likert scale ranging from 1 (completely disagree) to 7 (completely agree). Both the autonomy support ($\alpha = 0.81$) and the psychological control scale ($\alpha = 0.82$) were reliable and comparable with previous research (e.g., autonomy support: $\alpha = 0.93$; Deci et al., 2006 and psychological control: α ranging between 0.71 and 0.85; Soenens et al., 2005).

3. Results

3.1. Descriptive statistics and preliminary analyses

The descriptives of and bivariate correlations between the study variables can be found in Table 1. With respect to the background variables, only gender (but not age and education) was related to the study variables. That is, women reported providing more autonomy support ($M = 6.08$; $SD = 0.53$) than men ($M = 5.65$; $SD = 0.79$), $t(51.10) = 2.87, p < 0.01$.

3.2. Primary analyses

To investigate whether ECP related to provided psychological control and autonomy support within the friendship via experienced friendship need frustration and need satisfaction, we performed hierarchical regression analyses in which we controlled for personal standards perfectionism and gender (see also Baron & Kenny, 1986). First, we regressed either need frustration or need satisfaction on ECP. We found that ECP related positively to need frustration ($r = 0.28, p < 0.01$) and negatively to need satisfaction ($r = -0.30, p < 0.01$). Personal standards perfectionism only related to need satisfaction ($r = 0.17, p < 0.10$), but not need frustration ($r = -0.01, p > 0.05$). Finally, gender was unrelated to both outcomes ($r = 0.08$ and $-0.04, p > 0.05$ for need frustration and need satisfaction, respectively).

Second, we regressed either provided psychological control or autonomy support on ECP (see Step 2 in Table 2). ECP predicted positively psychological control (marginally significantly), but was unrelated to autonomy support. While personal standards perfectionism was unrelated to both outcomes, gender showed a positive relation with psychological control and a negative relation with autonomy support. This latter finding indicates that men were more likely to provide more psychological control and less autonomy support.

Third, we regressed either provided psychological control or autonomy support on both ECP and need experiences (i.e., need frustration and need satisfaction) (see Step 3 in Table 2). ECP no longer related to psychological control, while need frustration (but not need satisfaction) did relate to this outcome. With respect to autonomy support, only need satisfaction and to a lesser extent personal standards perfectionism predicted, respectively, positively and negatively provided autonomy support within the friendship. Relations with regard to gender were similar to the previous step. Finally, Sobel tests (recommended by Preacher & Hayes, 2004) indicated that whereas need frustration mediated the relation between ECP and psychological control ($z = 1.98, p < 0.05$), need satisfaction mediated the relation between ECP and autonomy support ($z = -2.44, p < 0.01$).

Table 1
Descriptives and correlations between the study variables.

	1	2	3	4	5	6
1. Evaluative concerns perfectionism	–					
2. Personal standards perfectionism	0.36***	–				
3. Friendship psychological need frustration	0.26**	0.09	–			
4. Friendship psychological need satisfaction	–0.23*	0.06	–0.74***	–		
5. Provided friendship psychological control	0.18†	0.15	0.51***	–0.44***	–	
6. Provided friendship autonomy support	–0.13	–0.13	–0.49***	0.57***	–0.54***	–
M	2.45	3.06	2.02	5.92	2.44	5.94
SD	0.69	0.72	0.87	0.73	0.97	0.66

Note. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$;
† $p < 0.10$.

Table 2

Hierarchical regression analyses with evaluative concerns perfectionism, personal standards perfectionism, need frustration, and need satisfaction predicting provided psychological control and autonomy support.

	Provided friendship psychological control			Provided friendship autonomy support		
	Step 1 β	Step 2 β	Step 3 β	Step 1 β	Step 2 β	Step 3 β
Gender	0.22*	0.24*	0.19*	−0.30**	−0.32**	−0.27**
EC perfectionism		0.19†	0.04		−0.16	0.02
PS perfectionism		0.07	0.10		−0.06	−0.15†
Need frustration			0.36**			−0.09
Need satisfaction			−0.16			0.50***
R ²	0.05	0.10	0.32	0.09	0.13	0.43
F for R ² change	5.30*	2.89†	16.53***	10.69**	2.03	26.88***

Note. EC = Evaluative concerns. PS = Personal standards;

† $p < 0.10$.

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

4. Discussion

Although studies have pointed to the beneficial and detrimental effects of, respectively, autonomy support and psychological control within friendships (e.g., Deci et al., 2006; Padilla-Walker et al., 2015), less is known about what fosters such interaction styles. The general aim of this study was, therefore, to examine why some friends are more autonomy supportive or psychologically controlling than others by looking into the role of ECP and need-based experiences. Up to the best of our knowledge, this study was the first to look into such antecedents within the domain of friendship relationships.

We found that the relation between ECP and provided friendship psychological control was driven by elevated levels of need frustration as experienced within the friendship. Complementary, we found that ECP related to lower provided friendship autonomy support via lower need satisfaction as experienced within the friendship. As individuals high on ECP have the tendency to view others to be critical and demanding (e.g., Blatt, 2008), they are indeed more likely to experience feelings of pressure and low volition within the friendship, view themselves as inadequate in being a good friend, and experience more hostility towards and less trust in close others (Dunkley & Kyparissis, 2008). Together, these negative feelings (need frustration and lower need satisfaction) foster a more manipulative and controlling way of interacting with close friends, whereby evaluative concerns perfectionists' high standards and expectations are projected onto their friends. Hypothetically, such a negative and defensive interpersonal interacting style might function to protect their vulnerable sense of self (Dunkley et al., 2006). Note, though, that ECP only related indirectly to provided psychological control and autonomy support and not directly (although we did observe a marginally significant relation between ECP and psychological control). Such direct effect is, however, not a necessary requirement for mediation (see also Hayes, 2009).

The current findings are consistent with recent theorizing regarding the distinct roles of need satisfaction ('bright' pathway) and need frustration ('dark' pathway) (Vansteenkiste & Ryan, 2013). More specifically, we found that provided friendship autonomy support was only predicted by need satisfaction as experienced within the friendship, while provided friendship psychological control was only predicted by need frustration as experienced in the friendship. These findings thus show that need satisfaction is an important resource for being autonomy supportive towards one's best friend, while need frustration makes one vulnerable for interacting in a controlling way within the friendship.

Finally, we would like to point out that personal standards perfectionism showed a rather ambivalent relation with friendship functioning, as it related positively to need satisfaction as experienced within

the friendship but negatively to provided autonomy support towards the best friend (although both relations were only marginally significant). Although no previous study investigated these relations, there are indications for both beneficial (Hill, Zrull, & Turlington, 1997) and no (Ashby, Rice, & Kutchins, 2008) effects of personal standards perfectionism on interpersonal functioning. Future research on this issue is needed.

4.1. Limitations and directions for future research

This study had several limitations. First, the sample size was relatively small and homogeneous (i.e., participants were all highly educated and young adults) and we only focused on same-sex best friendships. Similarly, individuals displayed on average only moderate levels of ECP, friendship need frustration, and provided friendship psychological control and high levels of friendship need satisfaction and provided friendship autonomy support. These rather homogeneous sample characteristics restrict the generalizability of the current findings. Future studies could include both younger and older samples and also close friendships consisting of different sexes to investigate whether ECP also relates to higher levels of provided psychological control within friendships among these individuals. It would also be interesting to investigate the role of ECP in provided psychological control and autonomy support in other relationships, such as in the teacher-pupil or sibling relationship. Further, we only included one friend of the friendship-dyad. Including friend-dyads would have important methodological advantages such as the reduction of shared method variance and retrospective bias. Additionally, because we employed a cross-sectional design, no causal conclusions can be drawn. Longitudinal and experimental designs could shed further light on the proposed link between the study variables.

Previous research only focused on the role of ECP in the prediction of provided psychological control within the parent-child relationship, but not within the friendship relationship. Although the current study extends these previous findings, it is important to note that we do not argue that the way how ECP manifests is identical across relationships, as this manifestation may depend on the type of relationship (i.e., being vertical or horizontal in nature). While some features of ECP (e.g., being more focused on one's self-image) may apply similarly across types of relationships, other features (e.g., imposing high standards on others) are probably more or less relevant and prevalent depending on the type of relationship. As our study is the first to examine the link between ECP and provided psychological control and autonomy support within friendships, we chose to rely on rather general items to assess ECP. A next step for future research is to gain more detailed insight in the manifestations of this construct in specific relationships.

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References

- Ashby, J. S., Rice, K. G., & Kutchins, C. B. (2008). Matches and mismatches: Partners, perfectionism, and premarital adjustment. *Journal of Counseling Psychology, 55*, 125–132. <http://dx.doi.org/10.1037/0022-0167.55.1.125>.
- Barber, B. K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development, 67*, 3296–3319. <http://dx.doi.org/10.1111/j.1467-8624.1996.tb01915.x>.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173–1182.
- Blatt, S. (1995). The destructiveness of perfectionism: Implications for the treatment of depression. *American Psychologist, 50*, 1003–1020.
- Blatt, S. J. (2008). *Polarities of experience: Relatedness and self-definition in personality development, psychopathology, and the therapeutic process*. Washington, DC: American Psychological Association.

- Boone, L., Vansteenkiste, M., Soenens, B., Van der Kaap-Deeder, J., & Verstuyf, J. (2014). Self-critical perfectionism and binge eating symptoms: A longitudinal test of the intervening role of psychological need frustration. *Journal of Counseling Psychology, 61*, 363–373. <http://dx.doi.org/10.1037/a0036418>.
- Brenning, K., Mabbe, E., Vansteenkiste, M., & Soenens, B. (2016). *Ups and downs in the joy of parenthood: A diary study examining variability in maternal well-being as a function of basic psychological needs, parent personality, and infant temperament*. (Manuscript submitted for publication).
- Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. D., Van der Kaap-Deeder, J., ... Verstuyf, J. (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation and Emotion, 39*, 216–236. <http://dx.doi.org/10.1007/s11031-014-9450-1>.
- Costa, S., Ntoumanis, N., & Bartholomew, K. J. (2015). Predicting the brighter and darker sides of interpersonal relationships: Does psychological need thwarting matter? *Motivation and Emotion, 39*, 11–24. <http://dx.doi.org/10.1007/s11031-014-9427-0>.
- 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.
- Deci, E. L., La Guardia, J. G., Moller, A. C., Scheiner, M. J., & Ryan, R. M. (2006). On the benefits of giving as well as receiving autonomy support: Mutuality in close friendships. *Personality and Social Psychology Bulletin, 32*, 313–327.
- Demir, M., & Davidson, I. (2013). Toward a better understanding of the relationship between friendship and happiness: Perceived responses to capitalization attempts, feelings of mattering, and satisfaction of basic psychological needs in same-sex best friendships as predictors of happiness. *Journal of Happiness Studies, 14*, 525–550. <http://dx.doi.org/10.1007/s10902-012-9341-7>.
- Demir, M., & Özdemir, M. (2010). Friendship, need satisfaction and happiness. *Journal of Happiness Studies, 11*, 243–259. <http://dx.doi.org/10.1007/s10902-009-9138-5>.
- Dunkley, D. M., & Kyriassis, A. (2008). What is DAS self-critical perfectionism really measuring? Relations with the five-factor model of personality and depressive symptoms. *Personality and Individual Differences, 44*, 1295–1305.
- Dunkley, D. M., Blankstein, K. R., Zuroff, D. C., Lecce, S., & Hui, D. (2006). Self-critical and personal standards factors of perfectionism located within the five-factor model of personality. *Personality and Individual Differences, 40*, 409–420. <http://dx.doi.org/10.1016/j.paid.2005.07.020>.
- Ferguson, Y. L., Kasser, T., & Jahng, S. (2011). Differences in life satisfaction and school satisfaction among adolescents from three nations: The role of perceived autonomy support. *Journal of Research on Adolescence, 21*, 649–661. <http://dx.doi.org/10.1111/j.1532-7795.2010.00698.x>.
- Frost, R. O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive Therapy and Research, 14*, 449–468.
- Grolnick, W. S., Ryan, R. M., & Deci, E. (1991). Inner resources for school achievement: Motivational mediators of children's perceptions of their parents. *Journal of Educational Psychology, 83*, 508–517. <http://dx.doi.org/10.1037/0022-0663.83.4.508>.
- Habke, A. M., & Flynn, C. A. (2002). Interpersonal aspects of trait perfectionism. In G. Flett, & G. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 151–180). Washington, DC: American Psychological Association. <http://dx.doi.org/10.1037/10458-006>.
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs, 76*, 408–420.
- Hill, R. W., Zull, M. C., & Turlington, S. (1997). Perfectionism and interpersonal problems. *Journal of Personality Assessment, 69*, 81–103. http://dx.doi.org/10.1207/s15327752jpa6901_5.
- Kasser, V. G., & Ryan, R. M. (1999). The relation of psychological needs for autonomy and relatedness to vitality, well-being, and mortality in a nursing home. *Journal of Applied Social Psychology, 29*, 935–954. <http://dx.doi.org/10.1111/j.1559-1816.1999.tb00133.x>.
- La Guardia, J. G., Ryan, R. M., Couchman, C. E., & Deci, E. L. (2000). Within-person variation in security of attachment: A self-determination theory perspective on attachment, need fulfillment, and well-being. *Journal of Personality and Social Psychology, 79*, 367–384.
- Mongrain, M., & Zuroff, D. C. (1995). Motivational and affective correlates of dependency and self-criticism. *Personality and Individual Differences, 18*, 347–354. [http://dx.doi.org/10.1016/0191-8869\(94\)00139-J](http://dx.doi.org/10.1016/0191-8869(94)00139-J).
- Padilla-Walker, L. M., Fraser, A. M., Black, B. B., & Bean, R. A. (2015). Associations between friendship, sympathy, and prosocial behavior toward friends. *Journal of Research on Adolescence, 25*, 28–35. <http://dx.doi.org/10.1111/jora.12108>.
- Pettit, G. S., Laird, R. D., Dodge, K. A., Bates, J. E., & Criss, M. M. (2001). Antecedents and behavior-problem outcomes of parental monitoring and psychological control in early adolescence. *Child Development, 72*, 583–598. <http://dx.doi.org/10.1111/1467-8624.00298>.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers, 36*, 717–731.
- Santor, D. A., & Zuroff, D. C. (1997). Interpersonal responses to threats to status and interpersonal relatedness: Effects of dependency and self-criticism. *British Journal of Clinical Psychology, 56*, 521–542.
- Soenens, B., & Vansteenkiste, M. (2010). A theoretical upgrade of the concept of parental psychological control: Proposing new insights on the basis of self-determination theory. *Developmental Review, 30*, 74–99. <http://dx.doi.org/10.1016/j.dr.2009.11.001>.
- Soenens, B., Elliot, A. J., Goossens, L., Vansteenkiste, M., Luyten, P., & Duriez, B. (2005). The intergenerational transmission of perfectionism: Parents' psychological control as an intervening variable. *Journal of Family Psychology, 19*, 358–366. <http://dx.doi.org/10.1037/0893-3200.19.3.358>.
- Stallman, H. M., & Hurst, C. P. (2011). The factor structure of the frost multidimensional perfectionism scale in university students. *Australian Psychologist, 46*, 229–236. <http://dx.doi.org/10.1111/j.1742-9544.2010.00010.x>.
- Stebbing, J., Taylor, I. M., Spray, C. M., & Ntoumanis, N. (2012). Antecedents of perceived coach interpersonal behaviors: The coaching environment and coach psychological well- and ill-being. *Journal of Sport & Exercise Psychology, 34*, 481–502.
- Van der Kaap-Deeder, J., Vansteenkiste, M., Soenens, S., Loeys, T., Mabbe, E., & Gargurevich, R. (2015). Autonomy-supportive parenting and autonomy-supportive sibling interactions: The role of mothers' and siblings' psychological need satisfaction. *Personality and Social Psychology Bulletin, 41*, 1590–1604. <http://dx.doi.org/10.1177/0146167215602225>.
- Van der Kaap-Deeder, J., Smets, J., & Boone, L. (2016a). The impeding role of self-critical perfectionism on therapeutic alliance during treatment and eating disorder symptoms at follow-up in patients with an eating disorder. *Psychologica Belgica, 56*, 22–31.
- Van der Kaap-Deeder, J., Soenens, B., Boone, L., Vandenkerkhove, B., Stengée, E., & Vansteenkiste, M. (2016b). Evaluative concerns perfectionism and coping with failure: Effects on rumination, avoidance, and acceptance. *Personality and Individual Differences, 101*, 114–119. <http://dx.doi.org/10.1016/j.paid.2016.05.063>.
- 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., Niemiec, C., & Soenens, B. (2010a). 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.), *Advanced in motivation and achievement. The decade ahead, vol. 16*. (pp. 105–166). UK: Emerald Publishing.
- Vansteenkiste, M., Smeets, S., Soenens, B., Lens, W., Matos, L., & Deci, E. L. (2010b). Autonomous and controlled regulation of performance approach goals: Their relations to perfectionism and educational outcomes. *Motivation and Emotion, 34*, 333–353. <http://dx.doi.org/10.1007/s11031-010-9188-3>.
- Zuroff, D. C., Sadikaj, G., Kelly, A. C., & Leybman, M. J. (2016). Conceptualizing and measuring self-criticism as both a personality trait and a personality state. *Journal of Personality Assessment, 98*, 14–21. <http://dx.doi.org/10.1080/00223891.2015.1044604>.