

BRIEF REPORT

The Relations of Arab Jordanian Adolescents' Perceived Maternal Parenting to Teacher-Rated Adjustment and Problems: The Intervening Role of Perceived Need Satisfaction

Ikhlas Ahmad
University of Jordan

Maarten Vansteenkiste and Bart Soenens
Ghent University

Although the effects of important parenting dimensions, such as responsiveness and psychological control, are well documented among Western populations, research has only recently begun to systematically identify psychological processes that may account for the cross-cultural generalization of these effects. A first aim of this study was to examine whether perceived maternal responsiveness and psychological control would relate differentially to teacher ratings of adolescent adjustment in a vertical-collectivist society (i.e., Jordan). The most important aim of this study was to examine, on the basis of self-determination theory, whether these associations would be accounted for by perceived satisfaction of the basic psychological needs for autonomy, competence, and relatedness. Results in a large sample of Jordanian adolescents ($N = 545$) showed that perceived maternal psychological control and responsiveness yielded, respectively, a positive and negative association with teacher-rated problems, whereas psychological control was negatively related to teacher-rated adjustment. Further, these 2 parenting dimensions related to adjustment and problems via perceived satisfaction of the basic psychological needs for autonomy and competence (but not relatedness). The findings are discussed in light of the ongoing debate between universalistic and relativistic perspectives on parenting and adolescent adjustment.

Keywords: parenting, cross-cultural, self-determination theory, needs, adolescence

Dozens of studies among Western samples have shown that perceived parental psychological control relates to child maladjustment (e.g., Barber, Stolz, & Olsen, 2005), whereas perceived parental responsiveness is related to adaptive developmental outcomes (e.g., Davidov & Grusec, 2006). Because research increasingly shows that these associations generalize to non-Western populations, the question becomes: How can these seemingly universal associations be explained? Grounded in self-determination theory (SDT; Deci & Ryan, 2000), we tested the explanatory role of adolescents' perceived satisfaction of their basic psychological needs for autonomy, competence, and relatedness in a Jordanian context.

Parenting and Adolescent Adjustment

Parental responsiveness comprises both parents' capacity to serve as a secure base when a child experiences discomfort or

stress and their tendency to interact with their children in a warm and affectionate fashion (Davidov & Grusec, 2006). Parental responsiveness has been found to relate to higher self-worth, academic adjustment, and social competence (e.g., Gray & Steinberg, 1999). Such findings have been obtained in countries across the globe, regardless of whether the cultural climate is individualistic or collectivistic oriented (Khaleque & Rohner, 2002). Few socialization scholars question the universal benefits of parental responsiveness.

The parenting dimension of psychological control has, in contrast, more often been a topic of cross-cultural debate (e.g., Dwairy & Achoui, 2010; Pomerantz & Wang, 2009). Parental psychological control involves the use of intrusive strategies, such as guilt-induction, shaming, and love-withdrawal, to manipulate the parent-child bond (Barber et al., 2005). Several cross-sectional and longitudinal studies have shown that psychological control is related to maladjustment in adolescents (e.g., Barber et al., 2005). Although these findings have primarily been obtained in individualistic-oriented cultures, recent research begins to demonstrate that these results also apply to various collectivistic-oriented cultures, including China (e.g., Vansteenkiste, Zhou, Lens, & Soenens, 2005), Korea (e.g., Soenens, Park, Vansteenkiste, & Mouratidis, in press), India, and Palestine (e.g., Barber et al., 2005).

In this study, we examined the adjustment correlates of responsiveness and psychological control in a country (i.e., Jordan) in the Middle East, a region in which parental responsiveness and psy-

This article was published Online First April 2, 2012.

Ikhlas Ahmad, Human Development Program, Counseling and Educational Psychology Department, University of Jordan, Amman, Jordan; Maarten Vansteenkiste and Bart Soenens, Department of Developmental, Personality and Social Psychology, Ghent University, Ghent, Belgium.

Correspondence concerning this article should be addressed to Ikhlas Ahmad, Human Development Program, Counseling and Educational Psychology Department, University of Jordan, Amman 11942, P.O. Box 13343, Jordan. E-mail: Iahmadii@umail.iu.edu

chological control have not yet been systematically examined (see Ahmad & Soenens, 2010, for an exception). Similar to most Middle Eastern and East Asian adolescents, Jordanian adolescents learn to value family bonds, conformity, and harmonious relations, goals that are central within collectivistic cultures (Singelis, Triandis, Bhawuk, & Gelfand, 1995). Specifically, in the case of a Jordanian family, members perceive themselves as extended partners who have to protect and support other family members emotionally and financially (“*wasteh*”; Faour, 1998). Yet, somewhat different from East Asian countries, vertical (i.e., patriarchal) relations are more strongly emphasized in Jordan (Barakat, 1993; Hofstede, 2001). Historically, these patriarchal relations date back to the existence of tribes that were governed by tribe leaders who exercised strong power over their members. Today, Jordanians tend to depend on each other a great deal, but some people, such as the elder male (“*rabialalah*”), have a higher status and, as authority figures, they possess most of the decision power over other family members (Kazarian, 2005).

In the present study, we examined the associations between perceived parenting and teacher-rated adjustment, as indexed by frustration tolerance, task orientation, assertiveness, and peer sociability, and teacher-rated problems, as indexed by acting out, learning problems, and shyness-anxiety (Hightower, 1986). To derive predictions about whether and why the observed associations of perceived parental responsiveness and psychological control would generalize to the Jordanian context, we relied on a notion central within SDT, that is, the perceived satisfaction of one’s basic psychological needs.

Understanding the Adjustment Correlates of Perceived Parenting: The Intervening Role of Perceived Need Satisfaction

SDT (Deci & Ryan, 2000) maintains that all human beings have a set of basic and innate needs, that is, the needs for autonomy, competence, and relatedness. Autonomy is defined as the desire to experience a sense of volition and psychological freedom when acting. Competence refers to the desire to interact effectively with one’s environment and to achieve desired outcomes. Relatedness involves the desire to experience a sense of closeness and connection with important others. In SDT, satisfied needs are considered vital psychological nutrients for one’s well-being and adjustment. Specifically, it is maintained that “psychological health requires satisfaction of all three needs; one or two are not enough” (Deci & Ryan, 2000, p. 229). Given their innate character, the perceived satisfaction of these three needs is said to be universally essential for individuals’ thriving and well-being. Consistent with this universality claim, perceived need satisfaction has been found to predict well-being in countries across the globe, including the United States, the United Kingdom, Belgium, Canada, France, China, Israel, Bulgaria, and Korea, among others (see Chirkov, Ryan, & Sheldon, 2010).

The concept of basic psychological need satisfaction is essential within the SDT framework, because it allows one to understand and predict how parenting relates to children’s adjustment. To the extent that parents are perceived as need-supportive, children would thrive and develop optimally, whereas they would display maladjustment under need-thwarting circumstances. We hypothesized that the adjustment correlates of perceived responsiveness

and psychological control would be accounted for by basic need satisfaction.

Although it may be obvious that responsiveness would allow for the development of warm and trusting relationships, thereby satisfying the need for relatedness, the provision of a secure base by supportive parents may also allow adolescents to self-initiate exploration of the outer world (Whipple, Bernier, & Mageau, 2009), thereby satisfying the need for autonomy. Further, the help provided by supportive parents in times of distress might also contribute to feelings of effectiveness and competence in adolescents. Similarly, we hypothesized that psychological control would compromise adolescents’ adjustment through the frustration of their basic psychological needs (Soenens & Vansteenkiste, 2010). To illustrate, the use of guilt-induction (e.g., “I had not expected you would do this; I’m really disappointed”) yields negative feedback, thereby frustrating adolescents’ need for competence (e.g., Soucy & Larose, 2000). It also creates distance and coldness in the parent–child relation (e.g., Assor, Roth, & Deci, 2004), thus forestalling the need for relatedness. Finally, it pressures children to change their behaviors or their way of thinking in ways dictated by the parents, thus undermining the need for autonomy (e.g., Vansteenkiste, Simons, Lens, Soenens, & Matos, 2005).

Note that adherents of the relativistic cross-cultural viewpoint might not necessarily agree that perceived psychological control has a negative effect in non-Western samples. This is based on the idea that autonomy-suppressing parenting, like psychological control, is less or even not harmful in societies where autonomy is less salient or less valued (e.g., Dwairy & Achoui, 2010; Markus & Kitayama, 2003). Another argument is that psychological control has a different meaning in collectivistic-oriented societies, where it would reflect parental care and concern and would be used in the service of the child’s welfare (e.g., Chao & Aque, 2009; Rothbaum & Trommsdorff, 2007). Finally, although children in collectivistic-oriented cultures are more frequently exposed to (psychologically) controlling parenting (e.g., Wu et al., 2002), this might be the case even more in collectivistic-vertical-oriented cultures like Jordan. This is because in a patriarchal climate, parents may want to assert their dominance and maintain the hierarchy in vertical parent–child relationships by relying on pressuring practices. Because of its frequent use, psychological control would be normal and would yield a less harmful effect for children.

To sum up, in spite of arguments forwarded by some cross-cultural researchers, we hypothesized, based on SDT, that the parenting correlates of perceived responsiveness and perceived psychological control typically observed in Western samples would generalize to the present Jordan context. Most important, we expected that these perceived parenting dimensions would relate to adjustment and problem behaviors through their association with perceived need satisfaction. To assess these child outcomes, we relied on teacher ratings, a method that helped us to overcome problems of shared method variance.

Method

Participants and Procedure

A total of 545 Jordanian adolescents (46% boys) from ninth to 11th grade (M age = 16 years) from six schools located in Amman, the capital and largest city of Jordan, participated in the

study. Eighty-five percent came from families with both a mother and father present in the home. Questionnaires were also distributed to 10 teachers (age range = 30–40 years; 60% female) who had been teaching for about 5–7 years. These teachers interacted with their students on a daily basis and spent a lot of time with them. The study was approved by the Jordanian Ministry of Education and the ethical university board. Further, active consent for participation in the study was obtained from the school directors, teachers, and mothers. Participation was voluntary.

Measures

Following the guidelines of the International Test Commission (Hambleton, 1994), all questionnaires were translated from English to Arabic by three bachelor of arts students whose major is translation. The back translation was done by two independent American scholars familiar with Arabic. Comparison of the original questionnaires with the back translation showed strong convergence.

Perceived parenting. Adolescents filled out two widely used questionnaires. Maternal responsiveness was assessed with the Acceptance scale from the Children's Report on Parenting Behavior Inventory (CRPBI; Schaefer, 1965; $\alpha = .83$). Maternal psychological control was assessed with the Psychological Control Scale—Youth Self Report (Barber et al., 2005; $\alpha = .60$). Items were rated on 5-point Likert-type scales, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Perceived basic need satisfaction. Participants were administered 18 items (Sheldon & Gunz, 2009) to assess the perceived satisfaction and frustration of the basic psychological needs for autonomy (six items; e.g., "My choices are based on my true interests and values"; "I had a lot of pressures I could do without"), competence (six items; e.g., "I took on and mastered hard challenges"; "I did something stupid, that made me feel incompetent"), and relatedness (six items; e.g., "I felt close and connected with other people who are important to me"; "I felt unappreciated with one or more important people") over the past week. Items were rated on a 4-point Likert-type scales, ranging from 0 (*less than 1 day*) to 1 (*1–2 days*) to 2 (*3–4 days*) to 3 (*5–7 days*).

These items tapped into global need satisfaction, rather than need satisfaction in the mother–child relation. To examine the factor structure of this questionnaire, we performed a confirmatory factor analysis (CFA) after having reverse scored the need frustration items. This CFA included three content-based factors, representing the three needs, and one method factor, representing

response tendency (i.e., acquiescence; see Johnston & Finney, 2010, for a similar approach). This model yielded an adequate fit to the data, $\chi^2(131) = 304.59$; comparative fit index (CFI) = .95; root-mean-square error of approximation (RMSEA) = .06; standardized root-mean-square residual (SRMR) = .07. All item loadings were significant at $p < .001$ and ranged between .32 and .66 (M loading = .51). To compute scale scores, we calculated the mean of the need satisfaction and reverse-scored need frustration items. Internal consistencies were .71, .72, and .72 for autonomy, competence, and relatedness satisfaction, respectively.

Rated adjustment and problems. The Teacher-Child Rating Scale (T-CRS; Hightower, 1986) is a widely used and well-validated teacher-reported rating scale of seven dimensions of children's classroom behavior: acting out, learning problems, shyness-anxiety, frustration tolerance, task orientation, assertiveness, and peer sociability. In the current study we used a 32-item version of the T-CRS obtained through personal communication with the developer of the scale (A. D. Hightower personal communication, July 7, 2009). The principal teacher rated each of the items separately for each pupil at the end of the school year on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The T-CRS has been shown to provide a reliable and valid measure in collectivistic samples, such as Chinese children (Chen, Dong, & Zhou, 1997). As in many studies using this scale (e.g., Hamre & Pianta, 2001), we created composite scores for behavior problems (as indicated by items for acting out, learning problems, shyness-anxiety; $\alpha = .89$) and adjustment (as indicated by frustration tolerance, task orientation, assertiveness, and peer sociability; $\alpha = .82$).

Results

Descriptive Statistics and Correlations

Correlations among the study variables are shown in Table 1. To examine whether adolescent gender and grade were related to the study variables, we conducted a multivariate analysis of variance with gender and age as independent variables and with all study variables as dependent variables. The multivariate gender effect was significant, Wilks' lambda = 0.93, $F(7, 505) = 5.88$, $p < .001$, $\eta^2 = .08$. Univariate tests showed that gender was related to psychological control, $F(1, 511) = 7.22$, $p < .01$, $\eta^2 = .02$; responsiveness, $F(1, 511) = 6.99$, $p < .01$, $\eta^2 = .01$; and relatedness need satisfaction, $F(1, 511) = 11.23$, $p < .001$, $\eta^2 = .02$. Female participants reported less psychological control ($M = 2.55$,

Table 1
Correlations Among Study Variables

Measure	<i>M</i>	<i>SD</i>	Range	1	2	3	4	5	6
1. Perceived responsiveness	3.82	.87	1–5						
2. Perceived psychological control	2.61	.72	1–5	-.16**					
3. Perceived autonomy need satisfaction	2.14	.59	0–3	.27**	-.20**				
4. Perceived competence need satisfaction	2.12	.55	0–3	.22**	-.20**	.49**			
5. Perceived relatedness need satisfaction	2.32	.55	0–3	.19**	-.14*	.52**	.46**		
6. Rated adjustment	3.37	.66	1–5	.13*	-.10*	.26**	.17**	.30**	
7. Rated problems	2.57	.69	1–5	-.17**	.15**	-.24**	-.15**	-.27**	-.73**

* $p < .01$. ** $p < .001$.

$SD = 0.70$), less responsiveness ($M = 3.74, SD = 0.89$), and more perceived relatedness satisfaction ($M = 2.40, SD = 0.51$) than male participants ($M = 2.72, SD = 0.75; M = 3.93, SD = 0.82$; and $M = 2.40, SD = 0.51$, respectively). The multivariate effect of grade was also significant, Wilks' Lambda = 0.90, $F(14, 1010) = 4.09, p < .001, \eta^2 = .05$. Grade was only related to adjustment, $F(2, 511) = 15.09, p < .001, \eta^2 = .06$, with participants in 11th grade displaying lower adjustment compared with younger participants. In light of these findings, we controlled for gender and grade in the primary analyses.

Primary Analysis: Structural Equation Modeling

To examine whether perceived need satisfaction could account for (i.e., mediate) the associations between perceived parenting and rated adjustment and problems, a series of models was tested using structural equation modeling with latent variables. Note that we use the term "mediation" only in the statistical sense, as the present cross-sectional data do not allow one to draw any causal conclusions. Analysis of the covariance matrices was conducted using LISREL 8.54 (Jöreskog & Sörbom, 2004), and solutions were generated on the basis of maximum-likelihood estimation. Seven latent constructs were modeled (i.e., two parenting measures, three need measures, two outcomes). Gender and grade were indexed by single indicators with the error variance fixed to zero. Each of the other latent factors was represented by three parcels. Each latent construct's parcels consisted of randomly selected items from the scale tapping into that construct.

Data screening of the observed indicators indicated partial data non-normality, both at the univariate and at the multivariate level.

Therefore, in all subsequent models we used the asymptotic covariance matrix between all indicators as input and inspected the Satorra-Bentler scaled chi-square (Satorra & Bentler, 1994). To evaluate model fit, the CFI, RMSEA, and the SRMR were selected. According to Hu and Bentler (1999), combined cutoff values close to .95 for CFI, close to .06 for RMSEA, and close to .09 for the SRMR indicate good fit. In each of the models we controlled for gender and grade. Because of the large sample size, our analyses attained high statistical power. To avoid small effects being flagged as significant, we used a more conservative level of significance ($p < .01$).

Our measurement model, including seven latent constructs and 21 indicators, yielded a good fit to the data, $\chi^2(196) = 377.65; CFI = .98, RMSEA = .04, SRMR = .04$. To test for mediation, we followed the guidelines of Holmbeck (1997). Specifically, we first estimated a direct effects model that included the parenting constructs as direct predictors of rated adjustment and problems. To control for the variance shared between both outcomes, both variables were allowed to correlate. This model had adequate fit, $\chi^2(64) = 175.56; CFI = .98, RMSEA = .06, SRMR = .04$. Perceived responsiveness was related negatively to problem behaviors ($\beta = -.17, p < .01$) and was unrelated to adjustment ($\beta = .11, p > .01$). Conversely, perceived psychological control was related negatively to adjustment ($\beta = -.19, p < .01$) and positively to problem behaviors ($\beta = .22, p < .001$).

In a second step we tested a full mediation model, where the parenting constructs were related only indirectly to the outcomes through the perceived satisfaction of all three needs (see Figure 1). Estimation of this model, $\chi^2(200) = 393.58, CFI = .98, RMSEA$

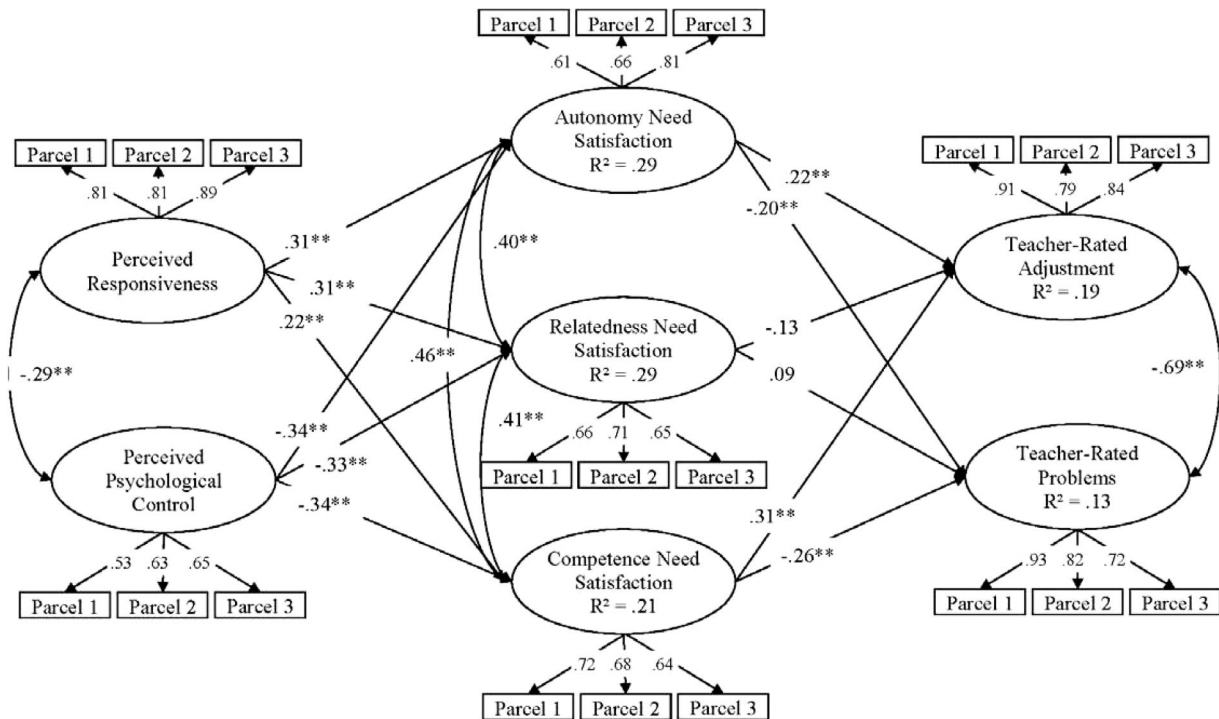


Figure 1. Structural model of associations between perceived parenting, need satisfaction, and rated adjustment and problems. Coefficients shown are standardized path coefficients. * $p < .01$. ** $p < .001$.

= .04, SRMR = .04, showed that perceived responsiveness was related positively to the three need measures, whereas perceived psychological control was related negatively to all three need measures. Perceived autonomy and competence (but not relatedness) need satisfaction were, in turn, related positively to adjustment and negatively to problems.

Finally, we tested a partial mediation model, which included both (a) indirect associations of the parenting variables with the outcomes through the needs and (b) direct associations between the parenting variables and the outcomes. The difference in model fit between the full mediation model and the partial mediation model was significant, $\Delta\chi^2(4) = 16.57, p < .01$. However, none of the individual paths from the two parenting dimensions to the two outcomes was significant. Thus, these paths were not retained in the final model, which is depicted in Figure 1.

Discussion

The present study aimed to contribute to the growing literature on the cross-cultural generalizability of the effects of parenting. We built on previous work by examining this question in Jordan, which is characterized by a vertical-collectivistic culture (Singelis et al., 1995), by including teacher-rated outcomes of adjustment and problems and studying need satisfaction as an intervening process in the parenting–adjustment link.

The results of the present study are strikingly consistent with the findings observed in Western samples (e.g., Gray & Steinberg, 1999). Although perceived responsiveness was associated negatively with problems, perceived psychological control related positively to problems and negatively with adjustment. Further, grounded in SDT (Deci & Ryan, 2000), the present study provided insight into the processes underlying the parenting–adjustment link. Specifically, perceived responsive parenting yielded beneficial correlates through its positive relation with children’s perceived satisfaction of their basic psychological needs. In contrast, perceived psychological control was associated with lower adjustment and more problems because of its negative association with need satisfaction. In particular, autonomy and competence need satisfaction were found to predict adjustment outcomes (see also Taylor & Lonsdale, 2010). One reason why relatedness satisfaction might fail to yield a unique contribution is that the adjustment measure did not sufficiently capture adolescents’ relational functioning. Statistically speaking, the high mean of relatedness satisfaction (see Table 1) might also have produced a ceiling effect, such that relatedness does not yield a unique relation to the outcomes above and beyond competence and autonomy.

Taken together, the current findings provide further evidence for SDT’s viewpoint that need satisfaction functions as a pancultural communality that helps to understand why the effects of parental responsiveness and psychological control generalize across cultures. Any parenting dimension that is perceived as supportive of the three needs is expected to promote adjustment and development, whereas parenting dimensions that are antagonistic of these three needs yield maladjustment. The current findings, especially those for psychological control, might come as a surprise for scholars adopting a cross-cultural relativistic viewpoint. To understand how the effects of psychological control may generalize across cultures, two important issues need to be considered.

First, we maintain that the concept of autonomy can best be approached from a broader conceptual perspective. Although autonomy is often equated with independence and self-reliance by cross-cultural researchers (e.g., Markus & Kitayama, 2003), from the SDT perspective it reflects the experience of volition and psychological freedom. When defined in this way, it becomes clear that independence can be pursued willingly or in a coercive way. Similarly, dependence and conformity to family traditions, values that are more heavily promoted in Eastern cultures, can be pursued willingly or out of feelings of obligation (Van Petegem, Beyers, Vansteenkiste, & Soenens, 2012). The reason why psychologically controlling parenting yields harmful correlates is, then, perhaps not so much because it forestalls independent functioning but because it hinders volitional functioning (Soenens et al., 2007; Soenens, Vansteenkiste, & Sierens, 2009). Yet as long as autonomy is equated with independence, it is logical to infer that its salutary effects are limited to individualistic-oriented societies. It is only when one defines autonomy as the experience of psychological freedom versus coercion that it becomes clear that psychologically controlling parenting yields maladjustment for individuals from non-Western societies as well. This does not preclude the possibility that there exists cultural variation in the way in which individuals’ need for autonomy gets satisfied versus frustrated. For instance, whereas adolescents in individualistic-oriented societies may be pressured into independent functioning, adolescents in collectivistic-oriented societies may be pressured to stay dependent on their parents.

A second issue that deserves emphasis is the focus on the subjective perception of responsiveness and psychological control, which can be distinguished from observed parental warmth and control. Although one may expect an average relation between observed parental behaviors and their subjective interpretation by adolescents, this relation is far from perfect. Future research may examine which variables, including cultural-specific processes, moderate the strength of this association. For instance, although the observed use of “the silent treatment” as a socialization strategy could easily elicit a subjective experience of intrusiveness among individuals in individualistic-oriented societies, this is possibly less the case for individuals living in collectivistic-oriented societies, because this observed parenting practice may be interpreted as reflective of parental care and concern (Chao & Aque, 2009). From the perspective of SDT, but also acceptance-rejection theory (Khaleque & Rohner, 2002), the critical point is that adolescents who experience or interpret parental practices as controlling are likely to suffer psychologically because of the experienced thwarting of their basic psychological needs (Deci & Ryan, 2000).

Finally, one might wonder why both parenting measures did not yield a specific association with the psychological needs, with psychological control being related only to autonomy need satisfaction and with responsiveness being related only to relatedness need satisfaction. We do not see a compelling theoretical necessity for such a one-by-one relation, as, in practice, the thwarting and support of one of the psychological needs often co-occur with the thwarting and support of the two other needs (Vansteenkiste et al., 2010). For instance, the use of guilt-induction (e.g., “You disappointed me”) not only pressures the child to change his way of acting or thinking but also creates distance in the parent–child relationship and contains competence-thwarting feedback (Soenens & Vansteenkiste, 2010). Such findings are consistent

with the principle of equifinality, which in developmental psychopathology refers to the fact that a diversity of pathways may lead to the same outcome (Cicchetti & Rogosch, 1996). Given that this is the first study to examine whether the perceived satisfaction of the three separate needs plays an intervening role in the parenting-outcome relation, clearly more work is needed in cultures across the globe.

This study has a number of limitations. First, no data were collected in Western samples to directly compare the strength of associations in the proposed model. Second, the data are cross-sectional in nature, precluding inferences of causality (but see Vansteenkiste, Simons, et al., 2005, for an experimental study on guilt-induction). Third, this study focused exclusively on adolescents' perceptions of their mothers, because mothers are the primary socialization figures in Jordan. Still, it is important to examine whether the current findings would generalize to perceived fathering. Fourth, it needs to be investigated whether the current findings generalize to other Middle Eastern countries. This is important given that Jordan, because of its rapid economic development, may have undergone a cultural shift such that it more closely resembles Western societies (Kazarian, 2005). Also, because Jordanian culture is not homogeneous, it would be desirable to tap into participants' perceived cultural climate (Singelis et al., 1995) to examine whether these perceptions would moderate the observed association, as argued by relativistic cross-cultural scholars.

References

- Ahmad, I., & Soenens, B. (2010). Perceived maternal parenting as a mediator of the intergenerational similarity of dependency and self-criticism: A study with Arab Jordanian adolescents and their mothers. *Journal of Family Psychology, 24*, 756–765.
- Assor, A., Roth, G., & Deci, E. L. (2004). The emotional costs of parents' conditional regard: A self-determination theory analysis. *Journal of Personality, 72*, 47–88. doi:10.1111/j.0022-3506.2004.00256.x
- Barakat, H. (1993). *The Arab world: Society, culture, and state*. Berkeley, CA: University of California Press.
- Barber, B. K., Stolz, H. E., & Olsen, J. A. (2005). Parental support, psychological control, and behavioral control: Assessing relevance across time, culture, and method. *Monographs of the Society for Research in Child Development, 70*, 1–137. doi:10.1111/j.1540-5834.2005.00364.x
- Chao, R. K., & Aque, C. (2009). Interpretations of parental control by Asian immigrant and European American youth. *Journal of Family Psychology, 23*, 342–354. doi:10.1037/a0015828
- Chen, X., Dong, D., & Zhou, H. (1997). Authoritative and authoritarian parenting practices and social and school performance in Chinese children. *International Journal of Behavioral Development, 21*, 855–873. doi:10.1080/016502597384703
- Chirkov, V. I., Ryan, R. M., & Sheldon, K. M. (Eds.). (2010). *Human autonomy in cross-cultural contexts: Perspectives on the psychology of agency, freedom, and well-being*. New York, NY: Springer.
- Cicchetti, D., & Rogosch, F. (1996). Equifinality and multifinality in developmental psychopathology. *Development and Psychopathology, 8*, 597–600. doi:10.1017/S0954579400007318
- Davidov, M., & Grusec, J. E. (2006). Untangling the links of parental responsiveness to distress and warmth to child outcomes. *Child Development, 77*, 44–58. doi:10.1111/j.1467-8624.2006.00855.x
- 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. doi:10.1207/S15327965PLI1104_01
- Dwairy, M., & Achoui, M. (2010). Parental control: A second cross-cultural research on parenting and psychological adjustment of children. *Journal of Child and Family Studies, 19*, 16–22. doi:10.1007/s10826-009-9334-2
- Faour, M. (1998). *The silent revolution in Lebanon: Changing values of the youth*. Beirut, Lebanon: American University of Beirut.
- Gray, M., & Steinberg, L. (1999). Unpacking authoritative parenting: Reassessing a multidimensional construct. *Journal of Marriage & the Family, 61*, 574–587. doi:10.2307/353561
- Hambleton, R. K. (1994). Guidelines for adapting educational and psychological tests: A progress report. *European Journal of Psychological Assessment, 10*, 229–244.
- Hamre, B. K., & Pianta, R. C. (2001). Early teacher–child relationships and the trajectory of children's school outcomes through eighth grade. *Child Development, 72*, 625–638. doi:10.1111/1467-8624.00301
- Hightower, A. D. (1986). The Teacher–Child Rating-Scale: A brief objective measure of elementary children's school problem behaviors and competencies. *School Psychology Review, 15*, 393–409.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Thousand Oaks, CA: Sage.
- Holmbeck, G. N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology, 65*, 599–610. doi:10.1037/0022-006X.65.4.599
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1–55. doi:10.1080/10705519909540118
- Johnston, M. M., & Finney, S. J. (2010). Measuring basic needs satisfaction: Evaluating previous research and conducting new psychometric evaluations of the basic needs satisfaction in general scale. *Contemporary Educational Psychology, 35*, 280–296. doi:10.1016/j.cedpsych.2010.04.003
- Jöreskog, K. G., & Sörbom, D. (2004). *LISREL 8.7 user's reference guide*. Chicago, IL: Scientific Software International.
- Kazarian, S. (2005). Family functioning, cultural orientation, and psychological well-being among university students in Lebanon. *The Journal of Social Psychology, 145*, 141–152. doi:10.3200/SOCP.145.2.141-154
- Khaleque, A., & Rohner, R. P. (2002). Perceived parental acceptance-rejection and psychological adjustment: A meta-analysis of cross-cultural and intracultural studies. *Journal of Marriage and the Family, 64*, 54–64. doi:10.1111/j.1741-3737.2002.00054.x
- Markus, H. R., & Kitayama, S. (2003). Culture, self, and the reality of the social. *Psychological Inquiry, 14*, 277–283. doi:10.1207/S15327965PLI1403&4_17
- Pomerantz, E. M., & Wang, Q. (2009). The role of parental control in children's development in Western and East Asian Countries. *Current Directions in Psychological Science, 18*, 285–289. doi:10.1111/j.1467-8721.2009.01653.x
- Rothbaum, F., & Trommsdorff, G. (2007). Do roots and wings complement or oppose one another? The socialization of relatedness and autonomy in cultural context. In J. Grusec & P. Hastings (Eds.), *Handbook of socialization: Theory and research* (pp. 461–489). New York, NY: Guilford Press.
- Satorra, A., & Bentler, P. M. (1994). Corrections to test statistics and standard errors in covariance structure analysis. In A. von Eye & C. C. Clogg (Eds.), *Latent variables analysis: Applications for developmental research* (pp. 399–419). Thousand Oaks, CA: Sage.
- Schaefer, E. S. (1965). Children's reports of parental behavior: An inventory. *Child Development, 36*, 413–424. doi:10.2307/1126465
- Sheldon, K. M., & Gunz, A. (2009). Psychological needs as basic motives, not just experiential requirements. *Journal of Personality, 77*, 1467–1492. doi:10.1111/j.1467-6494.2009.00589.x

- Singelis, T., Triandis, H., Bhawuk, D., & Gelfand, M. (1995). Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-Cultural Research*, 29, 240–275. doi:10.1177/106939719502900302
- Soenens, B., Park, S. Y., Vansteenkiste, M., & Mourtidis, T. (in press). Perceived parental psychological control and adolescent depressive experiences: A cross-cultural study with Belgian and South-Korean adolescents. *Journal of Adolescence*. doi:10.1016/j.adolescence.2011.05.001
- 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. doi:10.1016/j.dr.2009.11.001
- Soenens, B., Vansteenkiste, M., Lens, W., Luyckx, K., Beyers, W., Goossens, L., & Ryan, R. M. (2007). Conceptualizing parental autonomy support: Adolescent perceptions of promoting independence versus promoting volitional functioning. *Developmental Psychology*, 43, 633–646. doi:10.1037/0012-1649.43.3.633
- Soenens, B., Vansteenkiste, M., & Sierens, E. (2009). How are parental psychological control and autonomy-support related? Naturally occurring profiles of psychological control and two types of autonomy-support. *Journal of Marriage and Family*, 71, 187–202. doi:10.1111/j.1741-3737.2008.00589.x
- Soucy, N., & Larose, S. (2000). Attachment and control in family and mentoring contexts as determinants of adolescent adjustment to college. *Journal of Family Psychology*, 14, 125–143. doi:10.1037/0893-3200.14.1.125
- Taylor, I. M., & Lonsdale, C. (2010). Cultural differences in the relationships among autonomy support, psychological need satisfaction, subjective vitality, and effort in British and Chinese physical education. *Journal of Sport & Exercise Psychology*, 32, 655–673.
- Van Petegem, S., Beyers, W., Vansteenkiste, M., & Soenens, B. (2012). On the associations between adolescent autonomy and psychosocial functioning: Examining decisional independence from a self-determination theory perspective. *Developmental Psychology*, 48, 76–88. doi:10.1037/a0025307
- Vansteenkiste, M., Niemiec, C., & 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.), *Advances in motivation and achievement: Vol. 16. The decade ahead*. Bingley, England: Emerald.
- Vansteenkiste, M., Simons, J., Lens, W., Soenens, B., & Matos, L. (2005). Examining the motivational impact of intrinsic versus extrinsic goal framing and autonomy-supportive versus internally controlling communication style on early adolescents' academic achievement. *Child Development*, 76, 483–501. doi:10.1111/j.1467-8624.2005.00858.x
- Vansteenkiste, M., Zhou, M., Lens, W., & Soenens, B. (2005). Experiences of autonomy and control among Chinese learners: Vitalizing or immobilizing? *Journal of Educational Psychology*, 97, 468–483. doi:10.1037/0022-0663.97.3.468
- Whipple, N., Bernier, A., & Mageau, G. (2009). Attending to the exploration side of infant attachment: Contributions from self-determination theory. *Canadian Psychology*, 50, 219–229. doi:10.1037/a0016322
- Wu, P., Robinson, C. C., Yang, C., Hart, C. H., Olsen, S. F., Porter, C. L., . . . Wu, X. (2002). Similarities and differences in mothers' parenting of preschoolers in China and the United States. *International Journal of Behavioral Development*, 26, 481–491. doi:10.1080/01650250143000436

Received January 3, 2011

Revision received December 12, 2011

Accepted February 21, 2012 ■

ORDER FORM

Start my 2013 subscription to *Developmental Psychology*® ISSN: 0012-1649

___ \$178.00 **APA MEMBER/AFFILIATE** _____

___ \$433.00 **INDIVIDUAL NONMEMBER** _____

___ \$1,200.00 **INSTITUTION** _____

In DC and MD add 6% sales tax _____

TOTAL AMOUNT DUE \$ _____

Subscription orders must be prepaid. Subscriptions are on a calendar year basis only. Allow 4-6 weeks for delivery of the first issue. Call for international subscription rates.



AMERICAN
PSYCHOLOGICAL
ASSOCIATION

SEND THIS ORDER FORM TO
American Psychological Association
Subscriptions
750 First Street, NE
Washington, DC 20002-4242

Call **800-374-2721** or 202-336-5600
Fax **202-336-5568** : TDD/TTY **202-336-6123**
For subscription information,
e-mail: subscriptions@apa.org

Check enclosed (make payable to APA)

Charge my: Visa MasterCard American Express

Cardholder Name _____

Card No. _____ Exp. Date _____

Signature (Required for Charge)

Billing Address

Street _____

City _____ State _____ Zip _____

Daytime Phone _____

E-mail _____

Mail To

Name _____

Address _____

City _____ State _____ Zip _____

APA Member # _____

DEVA13