THE LEUVEN ADOLESCENT PERCEIVED PARENTING SCALE (LAPPS): RELIABILITY AND VALIDITY WITH FRENCH-SPEAKING ADOLESCENTS IN BELGIUM

Marie Delhaye[1, 2], Wim Beyers[3], Theo A. Klimstra[4],
Paul Linkowski[1, 2], & Luc Goossens[4]*
*(1) C.U.B. Hôpital Erasme, (2) Université Libre de Bruxelles,
(3) Universiteit Gent, & (4) KU Leuven*

The present study examined the reliability and validity of the Leuven Adolescent Perceived Parenting Scale (LAPPS), an instrument initially developed for use with Dutch-speaking adolescents in Belgium, in French-speaking adolescents living in that same country. The instrument was administered to a sample of French-speaking adolescents ($N = 625$) and a carefully matched sample of Dutch-speaking adolescents ($N = 630$). Internal consistency (Cronbach's alpha), factor structure, and mean scores for the LAPPS subscales were highly similar across linguistic region. Finally, the LAPPS subscales showed a differential pattern of associations with an alternative measure of adolescent-parent relationships (i.e., the Emotional Autonomy Scale; EAS) in the French-speaking subsample. These results clearly show that the LAPPS is a reliable and valid measure of perceived parenting in French-speaking adolescents in Belgium. Suggestions for future research on the reliability and validity of the LAPPS are outlined.

Introduction

Parenting has been defined as anything that parents do, or fail to do, that may affect their children (Kendziora & O'Leary, 1993). In some conceptualisations, a distinction is made between parenting practices and parenting styles (Darling & Steinberg, 1993). Parenting practices refer to the content and frequency of specific parenting behaviours rather than the quality of parenting behaviours, whereas parenting styles refer more to the quality and valence of parent-child interactions. Put differently, parenting practices encompasses what parents do (e.g., spank or hug their child) and style implies how parents do it (e.g., with warmth or hostility). Aspects of parenting styles, that are

referred to as parenting style dimensions, are measured on continua (e.g., warm vs. cold or strict vs. permissive; Locke & Prinz, 2002).

Parents' scores on these continua are associated with both internalising problems (e.g., depression) and externalising problems (e.g., delinquency) in adolescence (Laursen & Collins, 2009). These associations do not imply a causal effect of parenting or specific parenting styles or aspects thereof on adolescent behaviour, as it is equally likely that more problematic behaviour in adolescents leads their parents to adopt a less effective parenting style (Kerr & Stattin, 2003). Yet, it is important to have a solid measure of parenting style dimensions to further explore associations with adolescent problem behaviour.

In recent years, a comprehensive self-report measure of parenting style dimensions has been developed in the Dutch-speaking region of Belgium (Beyers & Goossens, 2008; Soenens, Beyers, Vansteenkiste, Sierens, Luyckx, & Goossens, 2004). Adolescents can use this instrument to describe their perceptions of the socialisation climate created by their parents. The present study examines whether this measure is sufficiently reliable and valid to be used with adolescents from a different linguistic region, that is, the French-speaking part of Belgium.

A comprehensive measure of adolescent perceived parenting

Over the last decades, an increasing number of aspects of parenting style has been distinguished. Initially, parenting style was described in terms of just two key dimensions, that is, responsiveness and control (Maccoby & Martin, 1983). *Responsiveness* refers to parents' attentiveness to their children's needs and is designated by numerous alternative labels such as warmth, involvement, or acceptance. Control refers to active parental strategies involving the communication of clear expectations for appropriate behaviour and efforts to monitor the child's behaviour related to these expectations (Soenens, Vansteenkiste, Luyckx, & Goossens, 2006). In recent years, control – thus defined – is increasingly referred to as *behavioural control.* This second dimension should be distinguished from a third dimension of parenting style, that is, *psychological control*. The latter term refers to parental behaviours that intrude into children's thoughts and feelings through excessive use of manipulative parenting techniques such as guilt induction or withdrawal of love (Barber, 1996). A fourth and final dimension of parenting style is *autonomy support*. This term refers to parents' age-appropriate support of their children's autonomy (Soenens, Vansteenkiste, Lens, Luyckx, Goossens, Beyers et al., 2007).

These four dimensions of parenting style are typically measured by means of different instruments. In an effort to arrive at a comprehensive measure of

all four dimensions, the Leuven Adolescent Perceived Parenting Scale (LAPPS) was developed for use with Dutch-speaking adolescents in Belgium. All four subscales were adapted from well-known instruments originally developed in the United States. The responsiveness, behavioural control, and psychological control subscales were adapted from a brief version (Schludermann & Schludermann, 1988) of the Child Report of Parental Behaviour Inventory (CRPBI), an instrument originally developed by Schaefer (1965). Some items from the Parenting Scales (PS; Lamborn, Mounts, Steinberg, & Dornbusch, 1991) were also included in the psychological control subscale. The autonomy support subscale, finally, was adapted from the Perception of Parents Scale (POPS; Grolnick, Deci, & Ryan, 1997).

Among the four of them, the LAPPS subscales cover the entire parenting climate, as responsiveness and autonomy support, which are interrelated, cover the more positive or 'enabling' aspects of such a climate, whereas behavioural control and psychological control, which also show a significant positive correlation, cover the somewhat more negative or 'constraining' aspects of this general atmosphere. The full instrument (e.g., Beyers & Goossens, 2008) or its subscales (e.g., Smits, Soenens, Luyckx, Duriez, Berzonsky, & Goossens, 2008; Smits, Soenens, Vansteenkiste, Luyckx, & Goossens, 2010; Soenens et al., 2006) have been used extensively with Dutch-speaking adolescents in Belgium. All subscales have shown high levels of internal consistency (e.g., ranging between .73 and .92; Beyers & Goossens, 2008). It remains unclear, however, whether the measure can be used with adolescents from other linguistic regions as well.

Validating the measure in another linguistic region

In a first attempt to assess the utility of the LAPPS in another linguistic region, we expected to find that the internal consistency of the subscales in adolescents from the French-speaking region was similar to earlier estimates obtained on Dutch-speaking adolescents. We also hoped to demonstrate that the intercorrelations among the subscales were similar, that the factor structure of the instrument was comparable (i.e., that measurement invariance across linguistic region would hold), and that there were no differences in average scores on the LAPPS subscales as a function of region. In a set of ancillary analyses, we also set out to show measurement invariance across gender, which would imply that the scores of adolescent females and males can be compared, because the factor structure is essentially the same in both subgroups.

Regarding average scores across gender and age, we expected that girls would score higher than boys on responsiveness (Soenens et al., 2006) and that boys would score higher than girls on psychological control (Barber,

1996). Finally, we expected to find lower scores in behavioural control among late adolescents (i.e., students in higher education) as compared to middle adolescents (i.e., students in high school; Soenens et al., 2006). For autonomy support, we expected to find higher scores in late adolescents as compared to middle adolescents (Wray-Lake, Crouter, & McHale, 2010).

Finally, we examined the construct validity of the LAPPS among adolescents from the French-speaking region through an examination of the correlations with an alternative measure of perceived adolescent-parent relationships. For this instrument, the Emotional Autonomy Scale (Steinberg & Silverberg, 1986), which measures perceived psychological distance in this relationship, we expected to find differential associations with the LAPPS subscales. Specifically, we hypothesised that psychological distancing, a more negative aspect of the relationship, would show significant negative correlations with the 'enabling' aspects of perceived parenting (i.e., responsiveness and autonomy support) and significant positive correlations with the 'constraining' aspects of perceived parenting (i.e., behavioural control and psychological control). These associations were expected to hold for both subscales of the EAS, that is, separation and detachment, which were found to show a positive association in earlier research (Beyers, Goossens, Van Calster, & Duriez, 2005; Beyers, Goossens, Vansant, & Moors, 2003). See Appendix.

Method

Participants and procedure

Two samples of adolescents were recruited for this study from the two main linguistic regions of Belgium, that is, the French-speaking and the Dutch-speaking regions. The sample from the French-speaking region was created by merging two samples, that is, a sample of 259 high school students (Grades 9 through 12 or 14- to 18-year-olds) from four schools in the capital region of Brussels and a sample of 366 students enrolled in the second year of medical training at a university in Brussels (aged 18 to 24 years). The combined French-speaking sample comprised 625 participants in all (370 females and 255 males).

The sample from the Dutch-speaking region was randomly drawn from different age and gender groups to make acomparable sample with that of the French-speaking adolescents. This Dutch-speaking sample comprised a total of 630 participants (373 females and 257 males) and was drawn from a much larger data set ($N = 2,728$) of high school and university students. The sample was comparable to the French-speaking sample in terms of the distribution across middle and late adolescents (i.e., there were 284 adolescents aged 14

to 18 and 346 adolescents aged 18 to 22) and the average age and standard deviation was similar in both samples ($M = 18.18$ years, $SD = 1.64$ years for the French-speaking sample and $M = 18.17$ years, $SD = 1.64$ years for the Dutch-speaking sample). These samples will be denoted as the two subsamples of our total sample in the remainder of this article. No information on the socio-economic status (SES) or immigrant status of the adolescents was available in either subsample.

Each participant completed the measures administered in their respective mother tongue, that is, in French or Dutch. All participants completed the LAPSS. In addition, the adolescents in the French-speaking subsample completed the EAS. All participants gave informed consent and completed the measure or measures during regularly scheduled class periods. They were informed that all of the information provided would be treated in a confidential manner. All adolescents were told that they could discontinue their participation in the study at any point in time, but none of them wished to do so. Participants received no monetary reward, but the university students in the Dutch-speaking subsample received course credit for their participation in the study.

Measures

Parenting as perceived by the adolescent was measured by means of the Leuven Adolescent Perceived Parenting Scale (LAPPS; Soenens et al., 2004). This instrument was completed for mother and father separately. For each parent, the scale comprised 4 subscales of 7 items each. These subscales measured the following aspects of parenting: (a) responsiveness (e.g., "My mother/father makes me feel better after talking over my worries with her/him"); (b) behaviour control (e.g., "My mother/father is very strict with me"); (c) psychological control (e.g., "My mother/father will avoid looking at me when I have disappointed her/him"); and (d) autonomy support (e.g., "My mother/father helps me to choose my own direction"). The reliability and construct validity of the LAPPS was supported in earlier research (Beyers & Goossens, 2008; Soenens et al., 2004). Items were responded to on a 5-point Likert scale ranging from 1 (*completely disagree*) to 5 (*completely agree*).

The 20-item Emotional Autonomy Scale (EAS; Steinberg & Silverberg, 1986) was used as an alternative measure of adolescent-parent relationships, again as perceived by adolescents. As recommended in earlier research (Beyers et al., 2005; Beyers et al., 2003), two subscales were distinguished in the instrument. Separation (12 items; e.g., "My parents and I agree on everything"; reverse coded) measured the extent to which adolescents have relinquished childish dependencies on and infantile representations of their par-

ents. Detachment (8 items; e.g., "My parents probably talk about different things when I am around from what they talk about when I'm not") measured more conflictual and radical forms of distancing from one's parents, including distrust and perceived alienation. Construct validity of the two subscales was established in several studies (Beyers et al., 2005; Beyers et al., 2003; Ingoglia, Lo Cocco, Liga, & Lo Cricchio, 2011; Pace & Zappulla, 2010). In the present study, alpha was .76 for separation and .63 for detachment and the two subscales were moderately correlated ($r = .27, p < .001$) in the subsample of French-speaking adolescents. All items were responded to on a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*).

The EAS was successfully translated and backtranslated from English to Dutch in earlier work (Beyers & Goossens, 1999). The Dutch versions of both the LAPPS and the EAS were translated from Dutch into French by a psychologist who had an intimate knowledge of French. Both measures were backtranslated into Dutch by a research assistant with an intimate knowledge of Dutch. The backtranslations thus produced closely resembled the original Dutch version of the instruments.

Statistical analyses

First, we tested the hypothesised four-factor structure of the LAPPS on the total sample by means of confirmatory factor analysis (CFA), using Mplus 6.1 software (Muthén & Muthén, 2007). Based on raw data, three parcels (two two-item parcels and one three-item parcel per subscale) were created for each of the four latent variables in the model, using the well-established Item-to-Construct-Balancing procedure (Little, Cunningham, Shahar, & Widaman, 2002). An advantage of parcelling is that this procedure minimises the effects of bias factors at the item level and helps to reduce overall model complexity.

We used the following set of fit indices to evaluate the model fit: the comparative fit index (CFI), which should exceed .95 in well-fitting models and range between .90 and .95 for acceptable models, the root mean square error of approximation (RMSEA), which should be .08 or less, and the standardised root mean square residual (SRMR), which should be smaller than .06 (Hu & Bentler, 1999). As an additional fit index, we checked whether the 90% confidence interval around the value obtained for RMSEA included the critical value of .08.

Second, we examined the comparability of this four-factor solution across gender and across linguistic region. In these analyses, we imposed the restriction that all parameters could be constrained to a common value, first for females and males and second for the adolescents in each linguistic region. For such model comparisons, the use of multiple criteria has been advocated

by Vandenberg and Lance (2000), as different criteria can provide information on different sources of model misspecification. We used three criteria: the delta (Δ) χ^2-statistic, which should be non-significant, the delta (Δ) Comparative Fit Index (CFI), which should be smaller than .010, and the delta (Δ) Root Mean Square Error of Approximation (RMSEA), which should be smaller than .015 (Chen, 2007). Measurement equivalence is said to hold when two of these criteria are satisfied.

Results

Internal consistency

Internal consistency of the LAPPS subscales as a function of linguistic region within Belgium are represented in Table 1. As can be seen, Cronbach's alpha estimates for each of the subscales were virtually identical in the two regions. Using the criteria proposed by De Vellis (2003), internal consistency was good (i.e., .80 or higher) for all of the mother scales, with the exception of the autonomy support subscale, the reliability of which was deemed acceptable (i.e., between .70 and .80). Using these same criteria, the reliability of the responsiveness and behavioural control subscale for the father version was good, whereas the reliability of the psychological control and autonomy support subscales for this version was acceptable.

Table 1
Internal Consistency (Cronbach Alpha) for Adolescents from Two Linguistic Regions

Subscale	French-speaking	Dutch-speaking
	Mother	
Responsiveness	.90	.91
Behavioural control	.82	.81
Psychological control	.85	.84
Autonomy support	.77	.77
	Father	
Responsiveness	.91	.91
Behavioural control	.81	.81
Psychological control	.79	.78
Autonomy support	.70	.73

Intercorrelations

Intercorrelations among the subscales for the French-speaking subsample are presented in Table 2. As could be expected, the two 'enabling' dimensions (i.e., responsiveness and autonomy support) showed a significant positive

correlation, and a similar correlation held between the two 'constraining' dimensions (i.e., behavioural control and psychological control). All of the other correlations among the subscales were significant and negative in sign. The correlations across the two versions (i.e., for mother and father) were all significant and positive in sign and were low (i.e., $r < .30$) to moderate (i.e., r between .30 and .50) according to Cohen's (1988) benchmarks. Most of the intercorrelations among the subscales for the Dutch-speaking subsample were roughly similar to the values observed for French-speaking adolescents. In short, the intercorrelations among the LAPPS subscales were as expected and adolescents clearly differentiated between their mother and father in terms of the type of parenting received.

Table 2
Intercorrelations Among Parenting Subscales in the French-Speaking and Dutch-Speaking Subsamples

Subscale	1.	2.	3.	4.
	French-Speaking Subsample (n = 625)			
1. Responsiveness	.21	-.31	-.45	.58
2. Behavioural Control	-.18	.45	.52	-.59
3. Psychological Control	-.40	.45	.43	-.49
4. Autonomy Support	.57	-.48	-.46	.28
	Dutch-Speaking Subsample (n = 630)			
1. Responsiveness	.36	-.18	-.48	.52
2. Behavioural Control	-.08*	.40	.33	-.43
3. Psychological Control	-.49	.35	.38	-.50
4. Autonomy Support	.59	-.38	-.51	.28

Note. Correlations for the mother version above the diagonals; correlations for the father version below the diagonals; correlations across both versions on the diagonals.
* $p < .05$. All other correlations $p < .001$.

Confirmatory factor analysis

In a first step, the hypothesised four-factor structure of the LAPPS was tested on the total sample ($N = 1,255$) by means of confirmatory factor analysis (CFA). This analysis yielded a good fit for both the mother version ($X^2 = 401.06$, $df = 48$, CFI = .96, RMSEA = .08 (90% CI = .07 – .08), SRMR = .04, with factor loadings ranging between .62 and .91) and the father version ($X^2 = 322.10$, $df = 48$, CFI = .97, RMSEA = .07 (90% CI = .06 – .08), SRMR = .04, with factor loadings ranging between .50 and .90). These findings provided ample support for the expected four-factor structure of the instrument.

In a second step, we examined whether the same factor structure held across gender and across linguistic region. Results of these analyses are presented in Table 3. This table clearly shows that the four-factor model pro-

vided good fit across both gender and region for both mother and father versions. Comparison of free and constrained models using chi-square difference tests indicated that the four-factor structure of the LAPPS is essentially the same across gender and linguistic region. The chi-square difference test reached significance in one comparison only, that is, when the father model was compared across linguistic regions. Differences in CFI and RMSEA, however, were small enough to suggest measurement invariance for all models tested. Therefore, the structure of the LAPPS seemed similar across gender and linguistic regions for both the mother and the father versions.

Table 3
Fit Indices for Equality-Constrained Four-Factor Model of the LAPPS

Grouping by	Parent	X^2	Df	ΔX^2-test ($df = 8$)	CFI	RMSEA (90% CI)	SRMR
Gender	Mother						
	Free	466.72***	96		.96	.08 (.07 - .09)	.05
	Constrained	469.59***	104	2.87	.96	.08 (.07 - .08)	.05
	Father						
	Free	400.17***	96		.96	.07 (.06 - .08)	.05
	Constrained	409.12***	104	8.95	.96	.07 (.06 - .08)	.05
Region	Mother						
	Free	455.96***	96		.96	.08 (.07 - .09)	.05
	Constrained	470.72***	104	14.76	.96	.08 (.07 - .08)	.05
	Father						
	Free	401.93***	96		.96	.07 (.06 - .08)	.05
	Constrained	422.31***	104	20.38**	.96	.07 (.06 - .08)	.05

Note. CFI = comparative fit index; RMSEA = root mean square error of approximation; SRMR = standardised root mean square residual. * $p < .05$, ** $p < .01$, *** $p < .001$.

Age, gender, and regional differences

Participants' scores on the two versions of the LAPPS were examined by means of a 2 (Gender) × 2(Region) MANOVA with age (middle versus late adolescence) added to the model. For the mother version, a significant multivariate effect was obtained for age ($F(4, 1244) = 17.57, p < .001$), region ($F(4, 1244) = 27.58, p < .001$), and gender ($F(4, 1244) = 5.28, p < .001$). Similar effects were obtained for the father version for age ($F(4, 1244) = 17.87, p < .001$), region ($F(4, 1244) = 22.59, p < .001$), and gender ($F(4, 1244) = 3.65, p < .01$).

Results of follow-up univariate analyses (ANOVAs) can be found in Table 4. As regards age, and in line with our hypotheses, older adolescents reported lower levels of behavioural control and higher levels of autonomy support than did younger adolescents when describing their mother and their father. As regards gender, and again in line with our hypotheses, adolescent females described both their mother and father as more responsive and less

Table 4
Means as a Function of Age Group, Gender, and Linguistic Region

Subscale	Adolescence				Gender				Region			
	Middle	Late	F	n2	Female	Male	F	n2	French	Dutch	F	n2
Mother												
Responsiveness	3.88 (0.77)	4.00 (0.78)	4.37*	.00	4.02 (0.80)	3.84 (0.70)	15.35**	.01	4.04 (0.78)	3.86 (0.76)	16.03***	.01
Behavioural control	3.32 (0.68)	2.99 (0.78)	59.26***	.04	3.14 (0.75)	3.14 (0.76)	0.35	.00	3.06 (0.80)	3.21 (0.70)	13.67***	.01
Psychological control	2.45 (0.79)	2.38 (0.87)	2.48	.00	2.35 (0.87)	2.49 (0.79)	9.61**	.01	2.49 (0.88)	2.33 (0.79)	12.28***	.01
Autonomy support	3.51 (0.62)	3.72 (0.66)	29.68***	.02	3.66 (0.67)	3.59 (0.62)	2.70	.00	3.60 (0.89)	3.66 (0.61)	2.97	.00
Father												
Responsiveness	3.30 (0.91)	3.35 (0.93)	0.09	.00	3.38 (0.97)	3.26 (0.85)	4.10*	.00	3.42 (0.96)	3.25 (0.88)	9.41**	.01
Behavioural control	3.30 (0.73)	2.97 (0.79)	57.35***	.04	3.12 (0.80)	3.09 (0.75)	3.23	.00	3.05 (0.82)	3.17 (0.74)	8.91**	.01
Psychological control	2.42 (0.71)	2.38 (0.81)	0.60	.00	2.36 (0.81)	2.46 (0.71)	4.67*	.01	2.49 (0.81)	2.30 (0.72)	20.92***	.02
Autonomy support	3.47 (0.64)	3.64 (0.65)	19.58***	.02	3.58 (0.67)	3.53 (0.62)	0.31	.00	3.56 (0.66)	3.57 (0.64)	0.15	.00

Note. Standard deviations in parentheses. Df for *F*-tests = 1 and 1247. * p < .05. ** p < .01. *** p < .001.

resorting to psychological control than did males. As regards region, finally, adolescents from the French-speaking part of Belgium described both their mother and their father as more responsive and less resorting to behavioural control than did their age mates from the Dutch-speaking region. However, French-speaking adolescents reported higher levels of psychological control as used by both their mother and their father than did Dutch-speaking adolescents. With the exception of the findings for age on behavioural control, which accounted for 4% of the variance, all of these age, gender, and regional differences were small (i.e., they accounted for 2% of the variance or less). There were no significant gender by region interactions, no consistent age by region or age by gender interactions, and the three-way interaction (i.e., age × gender × region) was non-significant.

Associations with separation and detachment

Pearson correlations were computed between the four LAPPS subscales and the two EAS subscales in the French-speaking subsample. These correlations are presented in Table 5. As expected, higher levels of responsiveness and autonomy support were correlated with lower levels of both separation and detachment for mothers and fathers, whereas higher levels of both types of control (i.e., behavioural control and psychological control) were associated with higher levels of separation and detachment for mothers and fathers.

Table 5
Correlations with Separation and Detachment in the French-Speaking Subsample

Subscale	Separation	Detachment
	Mother	
Responsiveness	-.31***	-.23***
Behavioural control	.09*	.24***
Psychological control	.22***	.27***
Autonomy support	-.16***	-.24***
	Father	
Responsiveness	-.36***	-.21***
Behavioural control	.15***	.31***
Psychological control	.25***	.33***
Autonomy support	-.26***	-.27***

* $p < .05$. ** $p < .01$. *** $p < .001$.

Discussion

This study was the first to examine the reliability and validity of a measure of perceived parenting, originally developed for use with Dutch-speaking ado-

lescents, in adolescents with a different linguistic background. Promising findings have been obtained on the psychometric properties of the measure in a sample of adolescents from the French-speaking region in Belgium. Some comments, however, can be made on the approach adopted and additional aspects of the reliability and validity of the instrument will have to be addressed in future research.

Reliability and validity across linguistic regions

As expected, the solid psychometric properties of the LAPPS obtained in one of the main linguistic regions in Belgium (Beyers & Goossens, 2008) could be extended to the other major linguistic region in the country. Specifically, the internal consistency, factor structure, and average scores on the instrument were highly similar in carefully matched samples of Dutch-speaking and French-speaking adolescents. In addition, construct validity of the LAPPS was established in the French-speaking subsample only, in that the different subscales of the instrument largely showed the expected differential pattern of associations with an alternative measure of perceived adolescent-parent relationships. Analyses on the total sample, when combined across linguistic regions, also indicated that the factor structure of and average scores on the instrument were highly similar for adolescent females and males.

Limitations and suggestions for future research

The present study has a number of definite strengths, including the relatively large and carefully matched subsamples with different linguistic backgrounds. However, several caveats are in order regarding instrumentation and sampling, which have implications for the generalizability of the findings obtained.

As regards instrumentation, one has to keep in mind that construct validity of the LAPPS was examined in the present study in the French-speaking sample only and was limited to associations with one alternative measure of adolescent-parent relationships. All measures used were further based on one particular type of partner in this relationship, that is, the adolescent. Future research could extend the analyses to include parents' views on the socialisation climate they offer to their children. Earlier research has shown that the correlations between adolescents and their parents on this type of measure are in the low-to-moderate range (Holmbeck, Li, Schurman, Friedman, & Coakley, 2002). Direct observation of enabling and constraining behaviours in family interactions (Yasui & Dishion, 2008) could also yield additional information on adolescent-parent relationships. In short, the conclusion that parenting of adolescents is measured with similar ease and is comparable, on

average, across linguistic regions in Belgium should be limited to adolescent self-reports only and not be extended to other types of informants or other types of methods.

As regards sampling, no information was available on the SES or the immigration status of the adolescents in the two subsamples. As this lack of information may conceal important differences between the two subsamples and potentially limits the generalizability of the results obtained, this should be considered an important limitation of the present study. It is also important to realise that all of the participants in the French-speaking subsample were recruited in the capital region of Brussels. Future research, therefore, should attempt to recruit adolescents from the other part of the French-speaking region in Belgium, that is commonly referred to as Wallonia. The results of the present study cannot be generalised to other linguistic communities in Belgium, and to adolescents from the small German-speaking community in particular, nor to adolescents from other regions in the world.

Finally, future research could assess aspects of reliability and validity not addressed in the present study. As regards reliability, for instance, test-retest estimates over a period of weeks could be obtained. Such estimates currently are not available for the LAPPS in any linguistic region of Belgium. Pending such research, one may conclude, however, that the French adaptation of the LAPPS can be recommended for use with French-speaking adolescents in Belgium.

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Appendix:
The Leuven Adolescent Perceived Parenting Scale (LAPPS) –
French version

MA MÈRE/MON PÈRE ET MOI

Consignes:

Ci-dessous, tu trouveras une série d'affirmations concernant ta mère/ton père. Pour chacune, veux-tu bien indiquer dans quelle mesure elle est plus ou moins vraie ou pas vraie en entourant le chiffre approprié (parmi 5 possibilités) à côté de chaque phrase? La signification des chiffres est reprise ci-dessous. Lis chaque affirmation très attentivement. Nous te demandons de répondre de la manière la plus honnête possible.

Cette affirmation (n') est

Pas du tout vraie	Pas vraie	Parfois vraie	Vraie	Tout-à-fait vraie
1	2	3	4	5

Ma mère/mon père …

1. … fait en sorte que je me sente mieux après que j'ai discuté de mes soucis avec elle/avec lui.   1 2 3 4 5

2. … trouve important d'avoir un tas de règles et de les observer de manière stricte.   1 2 3 4 5

3. … essaie sans cesse de me changer.   1 2 3 4 5

4. … me laisse organiser à ma façon les choses que je fais.   1 2 3 4 5

5. … me sourit souvent.   1 2 3 4 5

6. … tient à ce que je fasse exactement ce qu'on me dit.   1 2 3 4 5

7. … est moins amicale/amical envers moi quand je ne vois pas les choses comme elle/comme lui.   1 2 3 4 5

8. … dit souvent que je dois réfléchir moi-même à la vie.   1 2 3 4 5

9. … sait faire en sorte que je me sente mieux quand je suis contrarié(e).   1 2 3 4 5

10. … est très sévère envers moi.   1 2 3 4 5

11. … évite de me regarder quand je l'ai déçue/déçu.   1 2 3 4 5

12. … m'encourage à devenir indépendante(e) d'elle/ de lui.   1 2 3 4 5

13. … fait volontiers des choses avec moi.   1 2 3 4 5

14. … me donne autant de liberté que je veux. (R)   1 2 3 4 5

15. … ne me parle plus quand j'ai heurté ses sentiments, jusqu'à ce que je lui fasse à nouveau plaisir.   1 2 3 4 5

16. … me laisse choisir ce que je fais chaque fois que c'est possible.   1 2 3 4 5

17. … me remonte le moral quand je suis triste.   1 2 3 4 5

18. … me laisse aller partout où je veux sans me poser de questions. (R)   1 2 3 4 5

19. … ne veut plus rien faire avec moi quand je fais quelque chose qu'elle/que lui n'apprécie pas.   1 2 3 4 5

20.	… me laisse décider des choses pour moi-même.	1	2	3	4	5
21.	… me donne beaucoup de soin et d'attention.	1	2	3	4	5
22.	… me laisse sortir chaque soir si je le veux. (R)	1	2	3	4	5
23.	… fait en sorte que je me sente coupable quand j'obtiens un mauvais résultat à mon bulletin.	1	2	3	4	5
24.	… tient à ce que tout soit fait à sa manière.	1	2	3	4	5
25.	… trouve important de me montrer qu'elle/qu'il m'aime.	1	2	3	4	5
26.	… me laisse faire tout ce que je peux avoir envie de faire. (R)	1	2	3	4	5
27.	… se comporte froidement et de manière non-amicale quand je fais quelque chose qu'elle/qu'il n'apprécie pas.	1	2	3	4	5
28.	… m'aide à choisir mon propre chemin dans la vie.	1	2	3	4	5

Note. R indicates that scoring has to be reversed. Items 1, 5, 9, 13, 17, 21, and 25 make up the Responsiveness subscale; Items 2, 6, 10, 14, 18, 22, and 26 make up the Behavioural control subscale; Items 3, 7, 11, 15, 19, 23, and 27 make up the Psychological control subscale; and Items 4, 8, 12, 16, 20, 24, and 28, finally, make up the Autonomy support subscale.