

Perceptions of Parental Privacy Invasion and  
General Competency Feelings in Mid-Adolescents

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**Abstract**

Elaborating on previous research on parental privacy invasion, this study examined whether adolescents' perception of privacy invasion was associated with their general competency feelings. Questionnaire data were collected from a total of 113 Dutch high-school students (aged 12 to 15). The adolescents' perception of competency was measured using items from Harter's (1988) Self-Perception Scale for Adolescents. Using hierarchical multiple regression, we examined the link between parental privacy invasion and competency feelings, the relative effects of direct and covert forms of invasion, and a possible moderation by adolescent gender. Analyses revealed that the perception of covert parental privacy invasion was significantly and negatively related to girls' competency feelings. No significant associations were found for boys. Results are discussed in terms of gender socialization norms and coping mechanisms for parental privacy invasion.

*Keywords:* *parental privacy invasion, adolescence, competency feelings*

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Learning to become an independent person is one of the most important developmental goals in adolescence. When transitioning from dependent children to independent adults, adolescents and their families must learn to negotiate responsibilities and work toward a more egalitarian relationship (Smetana, Campione-Barr & Metzger, 2006). An important issue connected to these responsibilities is the amount of privacy that each family member expects to have, and receives. Privacy is defined as 'the selective control of access to the self or one's group' (Altman, 1975: p. 18). Privacy may be viewed as a boundary control process (Pedersen, 1997; Petronio, 1994), in that individuals make up their boundaries of what is private and what is not. When parents do not satisfactorily respect privacy boundaries - that is, when parents try to access information or spaces that the adolescent sees as his own to control (Hawk, Keijsers, Hale & Meeus, 2009; Pedersen, 1997) - this may lead to the perception of privacy invasion, and consequently to conflicts (Hawk et al., 2009; Petronio, 1994). The conflicts over these boundaries could, in fact, be seen as markers for a battle over autonomy (Hawk et al., 2009), and the question arises whether these conflicts could be harmful to adolescents' well-being. When parents encourage autonomous behavior, it promotes higher self-esteem in adolescents (Koydemir-Özden & Demir, 2009). The perception of a restriction of autonomy, therefore, could be linked to lower self-esteem. While parental privacy invasion is often discussed, research on its relation to adolescent development is scarce. In this study we investigated the relation between privacy invasion, as perceived by the adolescent, and the adolescent's competency feelings.

Perceptions of competency fall under the broader construct of self-esteem (Gecas & Schwalbe, 1986). Self-esteem is the evaluation the individual maintains about himself, which 'indicates the extent to which the individual believes himself to be capable, successful, significant and worthy' (Coopersmith, 1967, p. 4). This research elaborates on existing studies of parental monitoring, control, and adolescent adjustment; to our knowledge, the association between parental privacy invasion and competency feelings has not yet been studied. Moreover, our study will take into account possible moderation by gender, as this might influence the relation between privacy invasion and adolescent adjustment (see, for example: Finkenauer, Engels & Meeus, 2002; Hawk et al., 2009; Petronio, 1994; Smetana et al., 2006). Finally, with this study we will attempt to shed light on contemporary pedagogical queries about the way in which parents should inform themselves about their child's actions.

*Privacy invasion*

Social domain theory (Smetana, 1995) explains how differential perspectives on what is personal and what is not can lead to conflict. Theorists have identified several domains of issues, including prudential, moral, conventional and personal issues, and argue that family conflict arises when parents attempt to regulate what they perceive as a conventional or prudential issue, but what in the adolescent's view is a personal one. According to Smetana and colleagues (2006) adolescents reject parents' authority over what they perceive as personal issues, since these issues are seen as 'not having consequences for others' (p. 202), and therefore are beyond their parents' concern. Unfortunately, conflicts are quick to arise because parents usually believe they have more authority over both personal and multifaceted issues of the adolescents than adolescents, themselves, believe (Smetana et al., 2006). Petronio (1994) refers to these disagreements as boundary conflicts, when parents and adolescents cannot agree on the ownership of spaces or information.

Since boundaries of privacy are often unclear in adolescence, many adolescents often face privacy invasion by their parents. Two forms of privacy invasion can be distinguished (Petronio & McDaniel, 1992). *Covert invasion* refers to parents' use of certain subversive tactics such as eavesdropping on phone calls or going through the adolescent's personal belongings. *Direct invasion* refers to parental behaviors such as asking the adolescent for personal information or making remarks about their child's personal life. In the current research, the distinction between the two forms of privacy invasion will be taken into account by asking adolescents about their parents' behavior on both aspects.

The association between adolescents' perception of privacy invasion and their well-being has not been subject to extensive research, to date. In one study, perceptions of privacy invasion have been linked to adolescents' reports of internalizing problems such as depression and anxiety (Hale, Raaijmakers, Gerlsma & Meeus, 2007). Additionally, perceptions of parental overcontrol over 'personal' issues were found to link to perceptions of psychological control (Smetana & Daddis, 2002). Psychological control has been defined as parental behavior that is nonresponsive to the psychological and emotional needs of the child and which suppresses independent expression and autonomy (Barber, 1996; Barber et al., 2005). Parental psychological control has been related to developmental problems in adolescence (Barber, 1996), which raises the question if the same is true for privacy invading behavior. Person-environment fit theory states that it is vital to have a match between a child's (growing) need for autonomy and the amount of adult control exercised (Hunt, 1975), suggesting that a perception of overcontrol could possibly do harm. In short, existing studies suggest privacy invasion could be harmful to adolescents' development. In the next section we show how the

specific aspect of adolescents' development defined as self-esteem is also influenced by parental controlling behavior.

#### *Self-esteem and parental controlling behavior*

Self-esteem consists of a number of conceptions about the self (Coopersmith, 1967), which arise through observations of one's own behavior and its consequences (Bem, 1972). With this in mind, the family is an extremely important context for developing self-concepts, as parents show certain responses and attitudes toward their child's behavior. For instance, signals of a parent's positive evaluation of his child's behavior, such as parental support and interest in the child, are related to self-esteem of adolescents (Gecas, 1971). Research also indicates that a parenting style characterized by autonomy support, among other things, is linked to more beneficial effects on adolescent's well-being (Baumrind, 2005). In another study on late adolescents, higher levels of parental acceptance and involvement predicted self-esteem, as well as higher levels of psychological autonomy provided by parents (Koydemir-Özden & Demir, 2009). The perception of parental attitudes as encouraging autonomous behavior could thus result in an increased sense of self-esteem in adolescents (Koydemir-Özden & Demir, 2009). Rather importantly, the adolescent's perception of his parents' behavior was far more important than to the perception of this behavior by the parents, themselves (Gecas & Schwalbe, 1986). This emphasizes the need to take the perspective of adolescents into account when looking at parental behavior and outcomes on self-esteem. For example, adolescents' feelings of being controlled are related to several measures of poor adjustment (Kerr & Stattin, 2000). Summarizing, self-esteem of adolescents is strongly influenced by parental behavior, and autonomy-supporting behavior seems to benefit their development. After this short review of the research on general self-esteem, we now focus in on self-efficacy, and its link with parental controlling behavior.

#### *Self-efficacy and parental controlling behavior*

In the current study, the focus will be on self-efficacy, a specific aspect of self-esteem. This refers to 'the sense of one's competence or effectiveness in dealing with the social and physical environments' (Gecas & Schwalbe, 1986: p. 38). Self-efficacy (hereafter referred to as 'competency feelings') is especially linked to autonomy, because parents help adolescents to enhance their sense of self-efficacy by showing trust in their abilities to explore the world on their own and engage in situations independently (Gecas & Schwalbe, 1986). An adolescent's feelings of competence vary between several domains of self-esteem. Harter (1988) distinguished between eight different domains of self-esteem; scholastic, athletic and job competence, social acceptance, physical appearance,

romantic appeal, behavioral conduct, and close friendships. For this study, we only focus exclusively upon the domains of social acceptance, scholastic competence, and behavioral conduct. The domains of social acceptance and behavioral conduct have been defined as personal issues (Nucci, 2001), and we expected that parents and adolescents would consequently have the most boundary conflicts over these domains. In addition, scholastic competence was selected because school plays a large role in the adolescent's life. Since parents have to let adolescents gain more control over their own actions, frictions will arise on how autonomous they can be over school issues. Accordingly, we expected that the domain of scholastic competence is also frequently involved in issues over privacy invasion. The study measured all three domains separately, and subsequently we combined the scores to one general measure of competency feelings.

Empirical research on self-efficacy has found associations with parents' controlling behavior. The level of parental supervision or strictness can predict adolescents' fear of negative evaluation, which could point to lower feelings of competency (Koydemir-Özden & Demir, 2009). There seems to be a dual representation involved with parental control, in that adolescents decrease their norm-breaking behavior, as they might view the control as parents caring about them, but at the same time they may also feel less competent, leading to poorer adjustment (Kakihara, Tilton-Weaver, Kerr & Stattin, 2010). Youth's feelings of being over-controlled partially account for the link between parental control (Hawk et al., 2008) and adjustment (Kakihara et al., 2010), again emphasizing the importance of the adolescents' perceptions of the controlling behavior. Because of the link between perceived privacy invasion and perceptions of parental control (Barber et al., 2005; Smetana & Daddis, 2002), we hypothesized that the adolescent's perception of privacy invasion can be associated with his general competency feelings. More specifically, we expect that the more the adolescent feels that his parents are invading his privacy, the lower his competency feelings would be.

With the above in mind, it is important to look at gender differences in the association between parental behavior and self-esteem. Boys' self-esteem seems to be most strongly affected by parental control, and girls' self-esteem by parental support (Gecas & Schwalbe, 1986). Furthermore, in this study by Gecas and Schwalbe (1986) girls' self-esteem was consistently unaffected by parental control reports. This finding can be explained in terms of the differential socialization goals for boys and girls (Block, 1983). For boys, socialization norms emphasize agency, mastery, and exploration. For girls, on the other hand, interpersonality, sensitivity to, and dependence on others is valued more. These different norms may contribute to different effects of parental behavior on adolescents' competency feelings. Girls might be less offended by their parent's intrusive behavior than boys, because agency is less valued for them. With this in mind, perceived privacy invasion was expected to have a stronger link to competency

feelings for boys than for girls. For both sexes, a negative association was still expected, since individuation and autonomy are valued for both males and females in the West (Frank, Pirsch & Wright, 1990).

In short, privacy invasion can be seen as a form of parental control, and is connected to parent-adolescent conflict over privacy boundaries and autonomy. Higher parental privacy invasion is linked to adolescent adjustment problems, as it might come across to the adolescent as a negation of autonomy. This could damage the adolescent's sense of competency feelings. This study examined whether there is a relation between perceived privacy invasion and feelings of competency in mid-adolescence. We expected that the higher the privacy invasion frequency (as perceived by the adolescents), the lower the general feeling of competency would be. In addition, we examined the relative influence of the type of privacy invasion parents engage in. No preliminary statements on the direction of this effect were made. Finally, we hypothesized that there would be a gender moderation, in that the link between perceived privacy invasion and feelings of competency would be stronger for boys than for girls.

## **Method**

### *Participants*

Data were derived from a sample of Dutch high-school students ( $n = 173$ ), from four different high-schools in the Netherlands. The high-schools were located in four cities in the centre of the Netherlands, in a highly populated area (the Randstad). Students from both first and fourth class participated, but for the purpose of this study only data from the younger respondents were used (mostly first class), because of the focus on mid-adolescence. Out of the initial sample, ten respondents were excluded because of too many missing items in their questionnaires. A demographic analysis on these respondents revealed no significant similarities, except that all excluded respondents were males and with the exception of one case all were of Dutch ethnic background. Since these cases accounted for five percent of the total sample, it was deemed appropriate to exclude them without further adaptations.

Selection of respondents for this study was based on an age of 191 months (15 years and 11 months) or younger. This selection resulted in a sample of 113 respondents aged between 12 and 15, with an average age of 14 (26% = 12; 50% = 13, 3% = 14, 21% = 15). The low percentage of 14-year-olds was probably caused because respondents were selected from first class (mostly 12 or 13 years old) and fourth class (the youngest pupils are 15), with most 14-year-olds probably in classes in between first and fourth. Of the sample 62 students were male (55%). Students from different education levels participated in the study, with 45% on HAVO/VWO level, 20% on VMBO/HAVO level, 7% on HAVO level and 27% on VMBO level. Other background

variables included in the questionnaire were: family situation (89% living with two parents, 10% living with one parent, 1% other) and ethnicity (79% Dutch, 8% Turkish, 4% Moroccan, 4% Surinamese, and 5% other).

### *Measures*

*Privacy invasion.* Privacy invasion committed by the parents was measured using an adolescent report. A total of 11 items were answered which asked the adolescent how often their parents engaged in a certain form of privacy invasion (Petronio, 1994), six of which dealt with direct privacy invasion, and five with covert privacy invasion. Items were scored on a 5-point Likert scale (1 = never, 5 = very often). An item for direct privacy invasion is, for example: 'How often do your parents look over your shoulder when you are on the internet or MSN?'. One of the items for the covert measure was: 'How often do your parents secretly read your diary?' (we asked the adolescent to guess, since it is secretive behavior). For each respondent two average scores for both invasion scales were calculated for frequency of parents' invasive behavior.

Factor analyses on the full sample revealed that for both covert and direct privacy invasion frequency, one item did not load high enough on the entire scale. These items were left out, resulting in five items for the direct invasion measure and four for the covert invasion measure. The alpha reliability for the subscale of direct privacy invasion was moderate ( $\alpha = .66$ ), and item-total correlations were considered low ( $.21 < r < .38$ ). Reliability for the covert privacy invasion subscale was substantially higher ( $\alpha = .79$ ;  $.26 < r < .72$ ). Validity studies have not been done for these scales, to date.

*General competency feelings.* General competency feeling, the dependent variable, consisted out of a mean score over the three domains of competency; scholastic, behavioural and social competence. To measure adolescents' feelings of competency on these three domains, we used items from Harter's Self-Perception Scale for Adolescents (Harter, 1988). Each domain of competency in the scale is measured with five items. For each item, adolescents can choose between two statements which fits best with their feeling of competency, and can then choose whether this is quite true or very true. For example: 'Some children can easily make friends BUT other children can't make friends that easily'. Items were scored on a 4-point scale ranging from 1 (*not feeling competent*) to 4 (*feeling very competent*). For the three subscales of behavioral, social and scholastic competency feeling an average was calculated for each respondent. General competency feeling was computed by calculating a mean score out of the three averages. Internal consistency per subscale has been shown to be high in a predominantly white, American sample (Harter, 1988), but validity is lower for other ethnicities (Thomson & Zand, 2002), indicating that ethnicity should be taken into account when examining study outcomes.

For the three subscales separately, alpha reliability was highest for behavioral competency feeling ( $\alpha = .63$ ), followed by quite low alpha reliabilities for social ( $\alpha = .45$ ) and scholastic competency feeling ( $\alpha = .39$ ). To improve alpha reliability for scholastic competency feeling, one item was excluded from the analyses (SchCom1: 'Some children are as smart as others BUT other children aren't as smart as others'). This procedure increased reliability for the scholastic subscale to  $\alpha = .44$ . Alpha reliability for the general scale was reasonable ( $\alpha = .62$ ) but item-total correlations varied greatly ( $.04 < r < .45$ ), which can be explained by the fact that several competency domains were measured.

### *Procedure*

Data were collected from mid-adolescent students in four different high-schools in the Netherlands. Permission was granted by the school headmaster or a coordinator, after which consent forms were given to the students. Through the consent form parents had the opportunity to object to the participation of their child (no parents objected to the study). Students themselves also had the opportunity to object against participating (none did). A week after the consent forms were handed out, the students answered the actual pencil-and-paper questionnaire during the regular class sessions, using an exam-setting. The questionnaire took approximately 15 minutes to fill in, after which the participating students received a chocolate bar as reward. Questionnaire instructions for the different measures were included in a clear, age-appropriate language. Anonymity was guaranteed by refraining from asking respondents' names or other personal information.

### *Strategy of analysis*

We conducted all statistical tests on a  $p < .05$  level. The primary analyses were run using a hierarchical multiple regression model. This model tested for significant associations between two types of perceived privacy invasion and feelings of competency in general (*hypothesis 1*). We measured the relative influence of direct versus covert privacy invasion (*hypothesis 2*) by entering the two types of parental privacy invasion as separate predictors in the model. Gender was entered into the regression model to determine whether there were significant gender differences in the relationship between privacy invasion and competency feelings (*hypothesis 3*). Gender moderated the relationship between privacy invasion and competency feelings if the interaction terms for Gender x Covert/Direct Privacy Invasion were significant.

## **Results**

### *Descriptive statistics*

Prior to the analyses, assumptions for the tests were examined; all assumptions for

regression were met. Descriptive statistics for the current sample ( $n = 113$ ) are presented in Table 1. Both boys and girls scored just above the average of 2.50 on general competency feelings. Boys showed a greater range in scores than girls. Statistics on privacy invasion frequencies are also reported (Table 1). Intercorrelations between all variables in the regression analysis (Table 2) were generally modest. The independent variables of direct and covert privacy invasion correlated significantly, for both genders. This suggests that these variables measured a similar construct to some extent. Since both predictors are subtypes of privacy invasion, this broader aspect is most likely a general notion of privacy invasion. Covert privacy invasion, for girls, correlated negatively and significantly with the outcome of competency feelings ( $r = -.38, p = .003$ ). This would suggest that covert privacy invasion negatively predicted competency feelings for girls.

#### *Hierarchical multiple regression*

To test for a relationship between privacy invasion and competency feelings, and the possible moderation of gender, we performed a hierarchical multiple regression using the statistical program SPSS 16.0. In the first step, a main effect of gender was investigated (gender was dummy-coded as 'boys = 0, girls = 1'), and in the second step the main effects of direct and covert privacy invading behavior were entered. In the third step, two-way interaction effects were added for gender, direct invasion, and covert invasion.

Results for Step 1 (Table 3) suggested that there was no main effect of gender on general competency feeling ( $R^2 < .01, F(1, 111) = 0.03, p = .86$ ). The mean scores on competency feelings for boys and girls ( $M = 2.63$  and  $M = 2.64$ , respectively) did not differ significantly. The addition of both privacy invasion types as predictors in Step 2 did not lead to a meaningful increase in explained variance ( $\Delta R^2 = .01, F(3, 109) = 0.18, p = .77$ ). According to these results, the first hypothesis was not supported; privacy invading behavior did not directly predict general competency feelings. Furthermore, a different effect for type of privacy invasion on general competency feelings (hypothesis 2) was not found. Neither direct privacy invasion ( $p = .98$ ) nor covert privacy invasion ( $p = .54$ ) significantly predicted general competency feelings.

In Step 3, gender moderation was tested by entering two-way interaction terms for all variables in the model. The overall model of Step 3 was nonsignificant ( $\Delta R^2 = .06, F(6, 106) = 1.24, p = .08$ ), however, a trend towards significance was apparent. Results from Step 3 revealed that the third hypothesis held partially. We predicted that there would be a gender difference in the effect of privacy invasion on competency feelings. As expected, the interaction effect between Gender and Covert Privacy Invasion was significant,  $p = .01$ . The Gender x Direct Privacy Invasion interaction was nonsignificant,  $p = .39$ , as was the interaction between Direct and Covert Privacy Invasion ( $p = .73$ ).

To examine the change in amount of variance explained by only the interaction between Gender and Covert Privacy Invasion, the regression analysis was rerun, with only this significant interaction term entered in Step 3. Table 3 reports Step 3 for this second analysis. The resulting regression model was significant in Step 3,  $\Delta R^2 = .05$ ,  $F(6, 106) = 1.57$ ,  $p = .02$ , although the amount of explained variance is considered a small effect. Considering the dummy coding for gender, the unstandardized coefficient for the interaction term ( $B = -.50$ ) suggested that, for girls, more covert privacy invasion predicted lower competency feelings. In short, while privacy invading behaviors by parents did not predict their children's general competency feelings, there was a significant association for covert privacy invasion when considering gender. Figure 1 depicts the interaction effects of covert privacy invasion on general competency feelings, with gender as moderator

Linear regression analyses for boys and girls separately revealed that, for boys, there were no significant respective associations between either type of privacy invasion and competency feelings ( $R^2 = .03$ ,  $p = .41$ ). Neither direct privacy invasion ( $p = .63$ ), nor covert privacy invasion ( $p = .19$ ) could predict competency feelings in boys. For girls, the regression model was significant:  $F(2, 48) = 4.96$ ,  $R^2 = .17$ ,  $p = .01$ . Privacy invasion types significantly predicted competency feelings for girls. The amount of explained variance by the model was considered to be a small to moderate effect. Further analysis showed that only covert privacy invasion was significantly and negatively correlated with competency feelings in girls ( $t(48) = -3.07$ ,  $B = -0.33$ ,  $SE = 0.11$ ,  $\beta = -.51$ ,  $p < .01$ ), while there was no significance for direct privacy invasion ( $p = .20$ ). These results are not consistent with the hypothesized gender moderation effect; contrary to expectations, only girls' competency feelings were negatively associated with covert privacy invasion, while this was not the case for boys. The negative relation, however, was supportive of the expectations.

## Discussion

Most adolescents can recall a moment where their parents were not 'minding their own business'; a moment they perceived as privacy invasion (Petronio, 1994). Whereas a certain amount of conflict over privacy boundaries is considered common for the adolescents' life-stage (Smetana et al., 2006), the question arises whether too much privacy invasion could become harmful. A high frequency of privacy invasion by parents could be perceived as a restriction of autonomy (Hawk et al., 2009), something adolescents strive to gain as they try to become independent adults (Smetana et al., 2006). Research on the association between privacy invasion and adolescents' well-being, however, is relatively limited. The perception of parental privacy invasion has been linked to internalizing problems in adolescence (Hale et al., 2007) and feelings of

psychological control (Smetana & Daddis, 2002). In this study, we elaborated on this existing research by investigating the association between perceived privacy invasion and general competency feelings in a sample of mid-adolescents ( $n = 113$ , aged 12 to 15). We expected that the perception of privacy invasion by parents, because of its potential constraint on autonomy judgment, could predict lower competency feelings in these adolescents. Moreover, we considered differences in outcomes for two types of privacy invasion, direct and covert, and we assessed a possible gender moderation. Data analyses revealed that a higher perception of covert privacy invasion, characterized by concealed monitoring behavior such as reading someone's diary, was associated with lower competency feelings in girls.

Our first hypothesis, that a higher perception of privacy invasion would predict lower feelings of competency in adolescents, was not supported. This was probably due to the interaction effect of gender and privacy invasion types on the outcome of competency feelings; the finding that girls' competency feelings associated with the perception of covert privacy invasion, but boys' competency feelings did not, obscured the results for this first expectation. Moreover, our second hypothesis, that the association between privacy invasion and competency feelings would differ for direct and covert privacy invasion, was not supported. Neither form of privacy invasion had a significant association with general competency feelings. Whereas no preliminary statements on the direction of this effect were made, one could have expected to find a difference in effects. For example, covert privacy invasion could be perceived as generally more intrusive to the adolescent's privacy. By secretly monitoring or accessing private information, parents could be sending the adolescent the message that they do not trust him to be independent, possibly affecting his competency feelings (Baumrind, 2005). On the other hand, direct privacy invasion is more noticeable and could in this way form a more direct threat to adolescents' perception of competency. Future research has the task to examine whether this nonsignificant association between privacy invasion types and competency feelings also holds for other domains of adolescent adjustment, such as internalizing or externalizing problem behavior or autonomy development.

Our data did confirm a significant moderation by gender, but not in the way we hypothesized. Our expectation, that boys would be more affected by invading behaviors because of socialization norms (Block, 1983), was not supported. In fact, neither form of privacy invading behavior by parents associated with lower competency feelings in boys. Conversely, a closer investigation of the data did reveal that there was a significant association for girls. Whereas direct privacy invasion by parents did not significantly predict competency feelings for girls, covert privacy invasion did. The direction of this effect was negative, as was expected when considering modern norms of individuation and autonomy in adulthood (Frank et al., 1990).

These gender differences suggest a double standard in adolescents' reactions on parental privacy invasion, which can again be explained by gender socialization norms. Because of the focus on interdependency in girls' socialization, girls can be expected to be more comfortable with disclosing information to their parents when asked directly (Petronio, 2002). This may clarify why direct privacy invasion by parents does not predict lower competency feelings in girls. Indeed, previous research found that girls did not rate parental solicitation as privacy invasion (Hawk et al., 2008).

The finding that boys' competency feelings did not relate to either form of privacy invasion might be explained by the use of specific coping strategies following privacy invasion. Boys might be empowered to use more effective coping strategies when confronted with privacy invasion, compared to girls. Petronio (1994) differentiates between retroactive and proactive forms of boundary protection behavior. On the one hand, privacy invasion by parents may make the adolescent confront them directly, as he searches for a restoration in the balance of privacy ownership (Petronio, 1994). This is called a retroactive form of boundary control (Petronio & McDaniel, 1992) since it follows after perceived privacy invasion. Privacy invasive behavior by parents may also lead to secretive behavior by the adolescent (Petronio & McDaniel, 1992), which is a more evasive and proactive tactic for boundary control, since it is an attempt to prevent parents from invading the adolescent's privacy. Confrontational privacy management may lead to better outcomes for family interaction, as it restores boundary ownership more directly (Petronio, 1994). It also lets the adolescent send a clear message about his feelings toward his parents' behavior (Hawk et al., 2009). An adolescent's clear display of autonomy in parent-child interactions has been linked with better outcomes on his self-esteem later on (Allen, Hauser, Bell & O'Connor, 1994). As secretive or evasive behaviors are used to avoid confrontations over privacy matters, they could lead to opposite effects. Smetana and colleagues (2006), for example, found that secrecy in adolescent-parent relationships about schoolwork was related to lower self-esteem of the adolescents. Turning back to socialization norms for boys (Block, 1983), they might be able to make better use of confrontational strategies than girls: they are expected to be active, independent agents (Block, 1983), which could make them more prone to confront their parents when they feel offended.

Girls, on the other hand, tend to be more focused on interpersonal relationships and fear abandonment more than boys (Gunlicks-Stoessel & Powers, 2008). This tendency may lead girls to be more intolerant of interpersonal conflict, and to give in or submit to their parents sooner to maintain positivity in the relationship (Gunlicks-Stoessel & Powers, 2008). Moreover, girls' socialization prescribes that they are more expressive, but at the same time more compliant, than boys (Noller, 1978). This means that they are supposed to disclose more to their parents (as girls are also supposed to be

more intimate with their parents than boys) (Kerr & Stattin, 2000), and conversely they are not supposed to engage in conflict, due to their supposedly more compliant gender role. We found that girls' competency feelings were linked to parental privacy invasion, which could be a consequence of these female gender norms. Firstly, the emphasis on intimacy and disclosure in the relationship with their parents (Kerr & Stattin, 2000; Noller, 1978) suggests that girls might be more affected by parents' covert privacy invasion. Girls' awareness of their parents' covert privacy invasion, while their relationship is built on trust and disclosure, could damage their feelings of competency. Secondly, because of their gender status, girls are not in the position to make use of a confrontational coping strategy, which was found to be more appropriate reaction to privacy invasion. In conclusion, this suggest that girls are perhaps more susceptible to negative impacts of covert privacy invasion.

These findings indicate that at least covert parental privacy invasion is associated with negative adolescent adjustment in girls. While the mechanism behind this association is unclear, it does suggest that perhaps parents of adolescent girls should refrain from using covert techniques in monitoring their child. Moreover, the discussed gender differences suggest that research on the effects of privacy invasion should consider gender as possible moderator. Gender socialization norms may influence adolescents' attitudes towards parental behavior (Hawk et al., 2008), and related reactions (Gunlicks-Stoessel & Powers, 2008; Kerr & Stattin, 2000). Future research should focus on determining what mechanisms are at place when covert privacy invasion affects girls' competency feelings.

### *Strengths and limitations*

The discussed results should be interpreted with caution, since this study was limited in several ways. First, the results of our study are only interpretable as correlations, and could not speak to causal order of the effects. Consequently, there are alternative explanations that we cannot fully exclude. It could be that parents respond with more frequent covert privacy invasion when they notice that their child is not feeling very competent, as to keep an eye on her. Competency feelings of adolescents could thus form the incentive for parental privacy invasion frequency. Although it is certainly possible that this association is present, theories on parent-adolescent dynamics suggest that a reverse association is equally probable. On the one hand, the theory on boundary control (Petronio, 1994) states that parents and adolescents are in constant negotiation of privacy boundaries, as a normative process. Additionally, person-environment fit theory (Hunt, 1975) explains how adolescents should be granted the autonomy they need to grow up, and consequently this suggests that a high perception of privacy invasion could have impact on adolescent development. To further examine this, future

research should ask parents for the motives behind their privacy invading behavior (such as: as a reaction to their child's behavior). Additionally, research should be of longitudinal nature, so that dynamics in privacy invasion frequency and adolescent adjustment can be investigated.

Another limitation of this study is that data were derived from adolescent self-report instruments only, creating a one-sided view on the perception of parental privacy invasion. Whereas the preference certainly was to examine adolescents' views on parental behavior because of the association with their competency feelings (Gecas & Schwalbe, 1986; Petronio, 1994), it is important to take into account the parents' report on their behavior, as well. Furthermore, the data were collected from a limited number of schools in a specific area in The Netherlands, strongly limiting generalizability to other parts of the country or beyond. More rural areas, such as in the south of The Netherlands, and also other countries or other cultures, might have a different perception on the acceptability of parental privacy invasion. In the case where privacy boundaries are less strict, or are stricter, between parents and children, the association between privacy invasion and well-being might differ. Future research should examine cross-cultural differences in the link between parental privacy invasion and adolescents' well-being, and take into account attitudes towards privacy invading behavior.

Related to this limitation is the fact that we looked at a specific age-period in adolescence (ages 12 to 15). Firstly, this limits the use of the results for other age groups; as adolescents mature further, the relationship with their parents will generally become more egalitarian (Smetana et al., 2006). It is possible that older adolescents will more readily confront their parents about their invasive behavior (Hawk et al., 2009), and consequently the more frequent use of conflict strategies could alter the association with competency feelings. Moreover, adolescents will continue to ask for more autonomy and responsibilities (Smetana et al., 2006), possibly leading parents to engage less in privacy invasion. On the other hand, the younger adolescents under the age of 12 might experience higher frequencies of privacy invasion as they have just started to negotiate more freedom and autonomy with their parents (Petronio, 1994), which might also influence the association with competency feelings. More research is needed to compare age groups in adolescence with regard to the association between privacy invasion by parents and adolescents' competency feelings.

Finally, a strong limitation of this study was the focus on competency feelings in general, rather than examining specific domains of competency as identified by Harter (1988). Feelings of competency vary over the different domains of self-esteem, which could not be examined in the current study due to low reliability of the sub-domains. Future research should certainly investigate the effect of privacy invasion for every domain separately, as a general scale could conceal significant sub-effects. It could be,

for example, that out of the three domains in our measure of competency feelings, only the social competency scale was significantly related to privacy invasion. Adolescents' behavior in social situations might be considered the most personal, since the scholastic and behavioral domains are still somewhat viewed as the parents' responsibility. As a result, privacy invasion may only (or most strongly) be perceived in the case of interference with social matters. Due to the low reliabilities of the sub-domains in our study, however, we recommend that future studies make use of a different measure of competency, before differences between domains can be investigated. With regard to the general measure of competency feelings, the scale we formed out of the sub-domains still had low reliability, limiting the generalizability of the results even for our current sample. In short, Harter's (1988) measure of competency was a fairly poor instrument in this study, and future research should attempt to use a different, more psychometrically sound measure.

### *Conclusion*

In conclusion, the present results indicate that there is a significant association between covert privacy invasion committed by parents and girls' competency feelings. One explanation is that socialization into a female gender role (Block, 1983) makes that covert privacy invasion is perceived as more intrusive because of girls' intimate relationship with their parents (Noller, 1978). Although the direction of this link remains unclear, the current results indicate that there is a significant detrimental association between parental privacy invasion and adolescents' adjustment. Future research will have to reveal what makes the connection between the two.

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*Figure 1.* Interaction effects for covert privacy invasion (PI) and gender on general competency feelings

Table 1

*Descriptive Statistics for General Competency Feeling, Covert and Direct Privacy Invasion (PI) by Gender*

	Minimum	Maximum	<i>M</i>	<i>SD</i>
Boys ( <i>n</i> = 62)				
General Competency Feeling*	1.33	3.40	2.63	0.41
Direct PI**	1.20	4.60	2.55	0.69
Covert PI**	1.00	3.25	1.28	0.49
Girls ( <i>n</i> = 51)				
General Competency Feeling	2.07	3.13	2.64	0.26
Direct PI	1.00	4.40	2.36	0.77
Covert PI	1.00	4.00	1.44	0.74
Total ( <i>n</i> = 113)				
General Competency Feeling	1.33	3.40	2.63	0.35
Direct PI	1.00	4.60	2.47	0.73
Covert PI	1.00	4.00	1.35	0.61

\*Theoretical minimum = 1 and maximum = 4

\*\* Theoretical minimum = 1 and maximum = 5

Table 2

*Intercorrelations Between Predictors in Regression Analysis*

	1	2	3
Boys			
1. General Competency	-	-	-
2. Direct PI	<-.01	-	-
3. Covert PI	.16	.34*	-
Girls			
1. General Competency	-	-	-
2. Direct PI	-.09	-	-
3. Covert PI	-.38*	.61**	-
Total			
1. General Competency	-	-	-
2. Direct PI	-.04	-	-
3. Covert PI	-.07	.46*	-

*Note.* PI means Privacy Invasion.

\* $p < .01$

\*\* $p < .001$

Table 3

*Summary of Hierarchical Regression Analysis for Variables Predicting General Competency Feeling in Adolescents, With Only the Significant Interaction Term in Step 3.*

	B	SE	$\beta$	( $\Delta$ ) $R^2$
Step 1				< .01
Constant	-0.01	0.13		
Gender	0.03	0.19	.02	
Step 2				.01
Constant	-0.02	0.13		
Gender	0.05	0.20	.03	
Direct PI	< -0.01	0.11	< -.01	
Covert PI	-0.07	0.12	-.07	
Step 3				.05*
Constant	0.02	0.13		
Gender	0.03	0.19	.02	
Direct PI	0.02	0.11	.02	
Covert PI	0.24	0.17	.23	
Gender x Covert PI	-0.50	0.21	-.38*	

\* $p = .02$

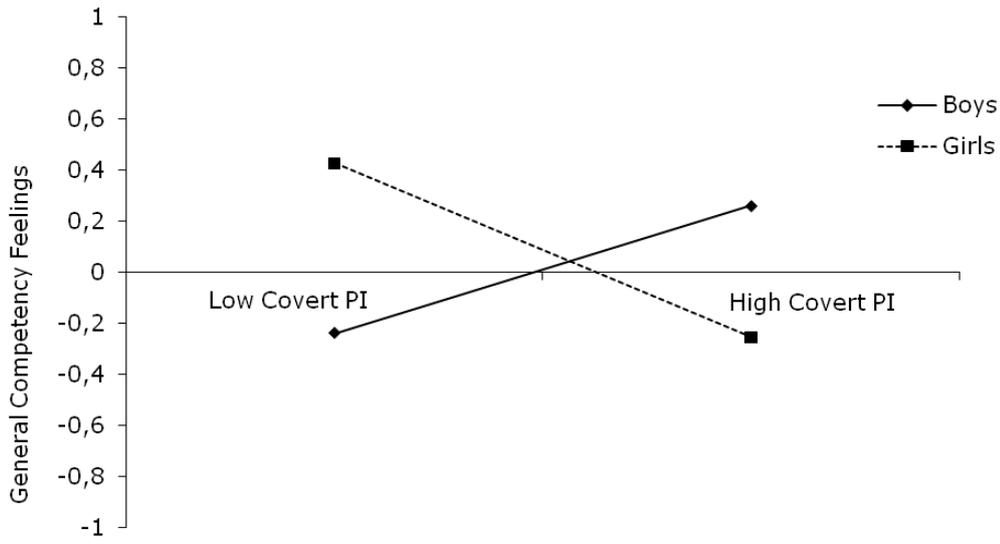


Figure 1.