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Sarah Teresa Steffgen , Bart Soenens , Nantje Otterpohl ,
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SYNOPSIS

Objective. Parental academic conditional regard is a socialization strategy in which parents' displays of appreciation increase (conditional positive regard; PACPR) or decrease (conditional negative regard; PACNR) depending on the children's academic achievement. Little is known about how adolescents perceive combinations of conditional positive and negative regard and how within-person combinations of them relate to developmental outcomes. **Design.** This study uses a person-oriented approach to examine within-person combinations of PACPR and PACNR and their different associations with individuals' motivation and adjustment. Three different samples reported on perceived PACPR and PACNR: adolescent students ($N = 3,891$), university freshmen ($N = 556$), and parents ($N = 760$). We conducted confirmatory latent profile analyses and investigated associations between profiles and outcome measures (basic need satisfaction, self-esteem level and contingency, ability self-concept, achievement goal orientation, test anxiety, and depressive symptoms). **Results.** The results supported a 3-class solution in all samples: low (44.4%–61.4%) or high (14.5%–24.5%) on both, and only high on PACPR (14.1%–31.3%). Groups reporting overall high levels of conditional regard scored the least favorably on all outcomes. Individuals with only high scores on PACPR differed from those with overall low scores on conditional regard primarily in terms of higher contingent self-esteem. **Conclusions.** The two dimensions of conditional regard are distinct. Although combination of the two dimensions is associated with individuals' general poor adjustment, the presence of PACPR alone is related to a fragile sense of self-esteem. Implications for future research are discussed.

INTRODUCTION

Parental conditional regard is characteristic of parents whose displays of love and affection depend on the child's ability to meet parent-imposed standards (Assor, Roth, & Deci, 2004; Coopersmith, 1967; Rogers, 1962). With an orientation of conditional regard, parents can either withdraw affection in response to their children's failure (conditional negative regard) or increase affection in response to children's success (conditional positive regard; Assor & Roth, 2005; Roth, Assor, Niemiec, Deci, & Ryan, 2009). These two facets of conditional regard are differentially related to different aspects of children's development (Assor, Kanat-Maymon, & Roth, 2014; Roth et al., 2009). To

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date, it is unknown how combinations of them co-occur within individuals and how these within-person combinations relate to developmental outcomes. Therefore, we aimed to identify within-person combinations of conditional regard in situations of failure versus success in school and examine how these combinations relate to individuals' school-specific adjustment and general psychological functioning. An examination of these questions is important because it allows us to determine whether the two dimensions of conditional regard are truly distinct (rather than two sides of the same coin). In addition, a person-oriented approach provides insights into the interplay between the two dimensions of conditional regard with respect to how they relate to important outcomes.

Parental Conditional Regard in the Academic Domain

Academic achievement is a core area for parent–child disagreements (Smetana, Daddis, & Chuang, 2016). Parents' involvement in children's school work plays an important role in families' daily lives and has an impact on children's learning motivation (Barger, Kim, Kuncel, & Pomerantz, 2019; Grolnick & Slowiaczek, 1994; Pomerantz, Moorman, Litwack, & Litwack, 2007). An *autonomy-supportive parental style* of school involvement, where parents display a sincere interest in the child's perspective on school work and offer choices on how to deal with school work, benefits children's motivation and learning (Froiland, 2011; Katz, Kaplan, & Buzukashvily, 2011; Li, Yao, Liu, & Chen, 2019; Viljaranta et al., 2018). In contrast, a more *controlling parental type* of involvement, where parents pressure their children to meet prescribed standards, diminishes motivation and hampers learning (Silinskas & Kikas, 2019).

One specific form of controlling parental involvement is parental conditional regard, which means that parents let their love and appreciation depend on the child's achievement of particular standards for performance (Assor et al., 2004). Conditional regard can take two forms (Assor & Roth, 2005; Roth et al., 2009). The most widely studied form of conditional regard is parental academic conditional negative regard (PACNR). This parenting practice includes withdrawing appreciation, esteem, and interest in the face of failure in school. In contrast, parental academic conditional positive regard (PACPR) is a seemingly more benign form of control. It includes showing more appreciation, esteem, and interest in the face of success in academics.

From a behaviorist perspective, conditional regard may be seen as an effective socialization strategy that increases the likelihood of the respective behavior (Aronfreed, 1968; Gewirtz & Peláez-Nogueras, 1991). In contrast, from a self-determination theory (SDT) perspective, both PACNR and PACPR are considered autonomy-suppressing and need thwarting strategies. When parents withdraw their love in the face of failure (as in PACNR), the

sense of secure attachment to the caregiver and thus the need for relatedness (i.e., the need to feel cared for and to belong) is directly threatened. Furthermore, the child receives direct negative feedback on his or her behavior or performance, which is likely to threaten the child's need for competence, that is the need to experience a sense of mastery and effectiveness. The need thwarting effect of PACPR is less straightforward because this strategy only includes a surplus in appreciation and caring, which, at first sight, appears to support the need for relatedness. However, conditional positive regard makes children feel compelled to engage in an activity to gain more parental approval. As such, both in the case of conditional negative and positive regard, children feel forced to choose between seeking parental approval and staying true to their personal preferences and interests, thereby creating a tension between the need for relatedness and the need for autonomy, that is the need to feel free in one's own actions (Assor et al., 2004; Cohen, Moed, Shoshani, Roth, & Kanat-Maymon, 2020; Ryan & Deci, 2017). In turn, this tension between needs is considered harmful to children's development.

Developmental Outcomes of Parental Conditional Regard

From a theoretical point of view, it can be argued that PACNR involves a direct and rather harsh threat to basic psychological needs, whereas PACPR includes a more indirect and insidious threat. Although initial research has not differentiated between conditional negative and positive regard, studies have begun to address the effects of one of the strategies separately or simultaneously using variable-oriented approaches, such as regression analysis or structural equation modeling. Here, we overview associations between the two conditional regard strategies and outcomes specifically in the academic domain and in the domain of psychological functioning more generally.

Quality of Relationships

Because of its controlling nature, conditional regard is likely to affect the quality of the parent-child relationship and other relationships (Assor et al., 2014). When experiencing conditional negative regard for expressing fear, children report more resentment toward the parent (Roth et al., 2009). Conditional negative regard is related to lower autonomy and relatedness satisfaction in a couples relationship, whereas conditional positive regard is only related to lower autonomy satisfaction (Kanat-Maymon, Roth, Assor, & Raizer, 2016). In a diary study, conditional positive regard was negatively associated with relationship satisfaction at the between-person level but positively at the daily (within-person) level (Kanat-Maymon, Argaman, & Roth, 2017). The authors suggested that conditional positive regard may satisfy the need for relatedness in the short run but pressure individuals to meet their partner's expectations in the long run. We additionally suggest that individuals

may sacrifice behavior of personal interest to pursue these expectations. When accumulating throughout time, the seemingly benign practice of conditional positive regard then begins to exert a detrimental effect on close relationships. Thus, PACNR likely frustrates all basic needs in relationships, but PACPR may mainly be linked to a frustrated need for autonomy.

Self-Esteem

Conditional negative regard directly relates to lower levels of self-esteem (Otterpohl, Keil, Assor, & Stiensmeier-Pelster, 2017; Wouters, Colpin, Luyckx, & Verschueren, 2018), which supports the idea that a withdrawal or lack of parental interest and affection involves a direct threat to a person's sense of worth. This effect may persist throughout the lifespan. Adults reported lower general self-esteem when they experienced conditional regard during childhood (Assor et al., 2004). Furthermore, through experiencing conditional negative and positive regard, children introject the contingent relationship between school performance and their worth, which leads to contingent self-esteem (Ryan & Deci, 2017). Conditional positive and negative regard are associated with contingent self-esteem (Curran, 2018; Israeli-Halevi, Assor, & Roth, 2015; Wouters et al., 2018). In turn, contingent self-esteem mediates the effects of conditional regard on affective outcomes, such as depressive symptoms (Wouters et al., 2018).

Academic Self-Concept

Conditional regard involves strong performance feedback, which is likely to affect a child's academic ability self-concept. However, this association has not yet been investigated. The skill-development approach assumes that one's successes and failures shape mental representations of one's own abilities (Helmke & van Aken, 1995; Niepel, Brunner, & Preckel, 2014). Conditional regard is likely to make experiences of success and failure visible and highly salient. Therefore, conditional regard may foster increases (PACPR) or decreases (PACNR) in ability self-concept. However, as beliefs about competence may fluctuate based on the current performance, conditional regard is likely to make children concerned about whether they do well according to other people's standards. Exposed to conditional regard, children's evaluation of their ability to develop skills and successfully meet challenges in life may be less stable over time and less clearly defined (Campbell et al., 1996).

Goal Orientation

Academic conditional regard predicted students' avoidance of academic challenge via feelings of shame and engagement in self-derogation (Assor & Tal, 2012). These results support the idea that students' mastery orientation is undermined under conditional regard. Furthermore, from a behaviorist perspective PACPR is likely to reinforce striving for good grades and the validation of competence (performance-approach goals),

whereas PACNR is likely to foster hiding bad grades and lack of knowledge (performance-avoidance goals; Gewirtz & Peláez-Nogueras, 1991). Indirect evidence for this assumption was obtained in a study showing that PACPR was associated with an inner pressure to succeed and grade-focused engagement and that PACNR was related to a lack of engagement, as reported by a teacher (Roth et al., 2009). In summary, when parents' appreciation varies depending on the child's achievements, the child likely prefers a performance orientation instead of a mastery orientation. PACNR appears to be related to an avoidance orientation, but PACPR may be linked to an approach orientation.

Test Anxiety

Conditional regard is likely to influence children's affective functioning in school. When anticipating losses in the desired parental love depending on one's achievements, it is plausible that children become anxious about failing on a test. According to the control-value theory of achievement emotions, PACNR makes failure subjectively harmful (Pekrun, 2006). Results not completely under the child's control will promote anxiety. Furthermore, a fragile sense of self-worth directly associated with both forms of conditional regard is likely to make children feel emotional disaffection during learning and anxious about achievement (Covington, 1984; Crocker & Park, 2004; Van der Kaap-Deeder et al., 2016). Therefore, PACNR should be related to heightened test anxiety, and PACPR should at least show moderate associations.

Depressive Symptoms

Finally, because conditional regard thwarts basic psychological needs, and because psychological need frustration comes with an emotional cost, conditional regard is assumed to be associated with lower psychological well-being in general and with internalizing symptoms in particular (Ryan & Deci, 2017; Van Petegem, Antonietti, Eira Nunes, Kins, & Soenens, 2020). In addition, contingent self-esteem puts children at risk for depressive symptoms because self-esteem varies contingent on external events and thus becomes unstable (Burwell & Shirk, 2006; Schöne, Tandler, & Stiensmeier-Pelster, 2015). Conditional negative regard is directly related to depressive symptoms, whereas the effects of conditional positive regard are fully mediated by contingent self-esteem (Wouters et al., 2018). It can be expected that both forms of conditional regard are related to depressive symptoms, but effects appear to be more direct and therefore stronger for PACNR.

Importance of a Person-Oriented Approach

To the best of our knowledge, all current studies of conditional regard have adopted a variable-oriented approach. When controlling for the respective other strategy, PACNR and PACPR differ somewhat in their psychological mechanisms and their impact on psychological functioning. However, the two strategies are conceptually closely linked and share about 22–28% common variance ($.45 < r < .53$; Assor & Tal, 2012; Roth et al., 2009). The overlap between the two dimensions raises issues that cannot be addressed using a variable-oriented approach but require a person-oriented approach to investigate within-person combinations of PACNR and PACPR. Specifically, a person-oriented approach is useful from both a substantive and a statistical point of view.

Substantively, a person-oriented approach allows one to test the assumption that the two dimensions of conditional regard are truly distinct. By identifying profiles of individuals, it is indeed possible to examine whether at least some of these profiles reflect a unique role for either PACNR or PACPR. If a person-oriented approach resulted in only two profiles, with some individuals scoring high and others scoring low on the two dimensions of conditional regard, then both dimensions would always co-occur to a certain extent at the individual level. In this case, PACNR and PACPR would reflect two sides of the same coin, with parents showing their love either unconditionally or conditionally. The distinction between the two dimensions at the variable level would then have little real-life value for individuals. If, instead, at least one profile would emerge with uniquely elevated scores on only one dimension (e.g., PACPR but not PACNR), the distinction between the two dimensions would be more meaningful. In this case, PACNR and PACPR would represent specific and distinct socialization strategies. Theoretically, four different profiles are possible, which reflect each combination of the two dimensions (high on both, low on both, high on PACPR but low on PACNR, and vice versa). A person-oriented approach allows for an examination of the question of whether each of the four profiles exists and whether profiles relate differently to an individual's motivation and adjustment.

Statistically, one may wonder whether it is appropriate to simply ignore the variance shared between PACNR and PACPR, as is typically done in the variable-centered approach. When both dimensions of conditional regard are entered simultaneously in a variable-oriented approach, the variance shared between the two dimensions is set aside and only the unique parts of the variance are considered in the analysis. However, excluding the shared variance from the analysis may change the meaning of the constructs examined. If PACPR is stripped from the variance it has in common with PACNR, does it then still reflect a conditionally approving parental orientation? Accordingly, unique scores for PACPR (stripped from PACNR) may result

in an underestimation of the detrimental consequences associated with this form of conditional regard. A person-oriented approach avoids this problem because it does not pit the two dimensions against each other; instead, it identifies within-person combinations of the dimensions so that isolated or interactional effects at the person level can be explored.

As such, a person-oriented approach may allow for a more accurate test of the unique roles of PACNR and PACPR in child development. This is particularly important for PACPR because this dimension of conditional regard is seemingly beneficial and is considered effective in promoting desired behavior from a behaviorist point of view (Aronfreed, 1968; Frost, 2005; Gewirtz & Peláez-Nogueras, 1991; McGraw, 2004). If PACPR is itself harmless or beneficial, individuals who only report elevated scores on PACPR (but not on PACNR) should be comparable to (or perhaps do even better than) individuals low in the two dimensions of conditional regard. If, instead, PACPR is detrimental to development (as assumed in SDT), the psychological adjustment of individuals uniquely high on PACPR should at least be in between the adjustment of individuals high on both dimensions and individuals experiencing no conditional regard at all.

Research Questions

The first goal of this study was to identify within-person combinations of PACNR and PACPR using a person-oriented approach. The person-oriented approach allows the investigation of the nature of PACNR and PACPR profiles and sheds light on their prevalence. Second, we aimed to investigate profile functionality. A comparison of differences between profiles in terms of various outcomes allows us to extend conclusions on the distinct functionality of the two parenting behaviors and their isolated or interactional effects at the person level. SDT suggests that both PACNR and PACPR are uniquely detrimental to development. We expected that individuals who score high on the two dimensions of conditional regard, should display the most unfavorable outcomes. In contrast, individuals who score low on both dimensions should display more favorable outcomes. We expected that if we can identify groups with elevated scores for either PACNR or PACPR, these individuals should score in between the groups scoring low and high on both dimensions. More specifically, individuals with elevated scores only in PACPR should show lower adjustment in developmental outcomes that were found to be associated with PACPR in variable-oriented studies, likewise for PACNR.

To investigate our research questions, we collected data from three of the most widely studied populations in academics: adolescent students (Study 1), university students (Study 2), and parents of school-aged children (Study 3). This approach allowed us to explore profiles in different populations and investigate the profile functionality in a very broad manner. Data collection

took place between 2016 and 2018. Ethical guidelines of the American Psychological Association (APA) and the German Association of Psychologists (DGPs) were followed in the study.

STUDY 1: ADOLESCENT STUDENTS

Adolescent students represent the population that is most affected by school-related parenting behavior. To investigate the adjustment of students in different profiles, we included a broad selection of variables. We examined basic psychological need satisfaction in the parent–child relationship, aspects of self-worth (self-esteem level and contingency), cognitive self-evaluations (ability self-concept), learning motivation (goal orientation), and domain-specific (test anxiety) and more general (depressive symptoms) indicators of affective functioning.

METHOD OF STUDY 1

Participants and Procedure

The participants were 3,891 adolescent students aged 9 to 19 years with a mean age of 13.13 years ($SD = 1.73$). Of the adolescents, 49.96% were women. Schools from seven different federal states in Germany were contacted via principals, 22 of whom agreed to participate. We invited all students from fifth to tenth grades to participate in the study. The parents provided active informed consent for their children. Participation was voluntary, and participants did not receive payment. The response rate was 69.5%. The sample included all different tracks within the secondary school system: low track schools (Sekundarschule, 21.3% of the sample), middle track schools (Realschule, 19.7% of the sample), and high track schools (Gymnasium, 58.9% of the sample). In all, 16.2% of the adolescents were in the fifth grade, 16.1% in the sixth, 21.8% in the seventh, 21.3% in the eighth, 12.6% in the ninth, and 12.0% in the tenth grade. Trained student workers administered questionnaires in class. We used pseudonymization to match the data of the adolescent students with data from their parents who were asked to participate in an additional survey (see Study 3).

Measures

To explore a broad range of different outcomes while not overburdening students with an excessively long survey, subsamples provided ratings of different combinations of outcome variables. Hence, sample sizes vary for the different outcome variables (for the exact composition of the total sample and sizes of subsamples, see Supplementary Table S1).

Parental Academic Conditional Regard

We used the German short version (Otterpohl, Steffgen, Stiensmeier-Pelster, Brenning, & Soenens, 2020) of the *Parental Conditional Regard Scale* (Assor et al., 2004) to measure the extent to which individuals perceive parental academic conditional regard. Adolescents indicated their perception of changes in parental regard following good grades (PACPR; e.g., “When I get a good grade in school, I notice that my mother is much warmer toward me than she usually is.”) or bad grades (PACNR, e.g., “When I get a bad grade at school, I notice that my mother shows less affection for me than usual.”). Six items each for PACPR and PACNR were deployed using a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). Adolescents were instructed to report on their primary caregiver, defined as the person they spend most of their time with. Children reported on their mother in 92.3% of the cases, on their father in 6.5% of the cases, and on another caregiver (e.g., grandparents or foster parents) in 1.2% of the cases. The original scale showed good reliability, a clear factorial structure with two intercorrelated scales, and convincing convergent validity with related constructs (e.g., internal compulsion, and grade focused engagement; Roth et al., 2009). Previous studies have shown good reliability of the German scale (Otterpohl, Lazar, & Stiensmeier-Pelster, 2019; Otterpohl et al., 2020). Cronbach’s alphas in the present sample were .89 for PACNR and .93 for PACPR.

Basic Need Satisfaction in the Parent–Child Relationship

Satisfaction of basic needs was measured using the *Basic Need Satisfaction in Relationship Scale* (La Guardia, Ryan, Couchman, & Deci, 2000). The scale measures relationship-specific satisfaction of needs for autonomy (e.g., “When I am with my mother, I feel free to be who I am.”), relatedness (e.g., “When I am with my mother, I feel loved and cared about.”), and competence (e.g., “When I am with my mother, I feel very capable and effective.”). The scale contains three items for each need, and a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*) was used. Cronbach’s alphas in the present sample were .60 for autonomy, .72 for relatedness, and .77 for competence ($n = 661$).

Self-Esteem

We used two subscales of the German *Inventory of Self-esteem for Children and Adolescents* (Schöne & Stiensmeier-Pelster, 2016). Ten items measure self-esteem level (e.g., “My opinion about myself is very positive.”), and 12 items measure self-esteem contingency in the academic domain (e.g., “I somehow feel worthier if I receive a good grade.”) using a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). Cronbach’s alphas in the present sample were .87 for self-esteem level and .89 for self-esteem contingency ($n = 1496$).

Academic Ability Self-Concept

We administered one scale of the German *Academic Self-concept Scales* to assess academic ability self-concept (Schöne et al., 2012). Five items asked adolescent students to rate their subjective capabilities for academics on a 5-point Likert scale (e.g., “In school, many tasks are 1 = *hard*/5 = *easy* for me.”). Cronbach’s alpha in the present sample was $\alpha = .87$ ($n = 818$).

Goal Orientation

We measured students’ achievement goals using the German *Scales for the Assessment of Learning and Performance Motivation* (Spinath, Stiensmeier-Pelster, Schöne, & Dickhäuser, 2012). The scale assesses mastery orientation (8 items; e.g., “In school, it is important for me to learn as much as possible.”), performance-approach orientation (7 items; e.g., “In school, it is important to me that others think I am smart.”), and performance-avoidance orientation (8 items; e.g., “In school, it is important to me not to give wrong answers to questions of the teacher.”) using a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). Cronbach’s alphas in the present sample were .78 for mastery orientation, .82 for performance-approach orientation, and .85 for performance-avoidance orientation ($n = 1111$).

Test Anxiety

The 15-item German short form of the *Test Anxiety Inventory* (Spielberger & Vagg, 1995; Wacker, Jaunzeme, & Jaksztat, 2008) was used to measure students’ experience of specific symptoms of anxiety before, during, and after tests in school on the four subscales *Worry*, *Emotionality*, *Interference*, and *Lack of confidence*. Adolescent students rated the symptom frequency of occurrence on a 4-point Likert scale ranging from 1 (*almost never*) to 4 (*almost always*) (e.g., “During tests I find myself thinking about the consequences of failing.”). Cronbach’s alpha in the present sample was .89 ($n = 1424$).

Depressive Symptoms

We measured students’ depressive symptoms using the German *Inventory of Depression for Children and Adolescents* (Stiensmeier-Pelster, Braune-Krickau, Schürmann, & Duda, 2014). The questionnaire was based on the Children’s Depression Inventory (CDI) developed by Kovacs (1985). It contains 29 items that tap into different depressive symptoms. Adolescents chose the most fitting of three statements that indicate different levels of the respective depressive symptoms (e.g., “I felt miserable *rarely/often/all the time*.”). Higher scores indicate higher levels of depressive symptoms. Cronbach’s alpha in the present sample was .89 ($n = 1880$).

Confirmatory Latent Profile Analysis

We conducted confirmatory latent profile analyses (CLPA) using *Mplus* 8 (Muthén & Muthén, 1998–2018) to examine whether groups of adolescent students with high PACPR/high PACNR, low PACPR/low PACNR, high PACPR/low PACNR, and low PACPR/high PACNR could be identified in the present sample. Intraclass correlations of all study variables indicated that only very small amounts of variance (1.6–6.8%) could be attributed to the classroom level. Lee (2000) proposed that an amount of variance less than 10% can be considered negligible. Because most of the intraclass correlations in Study 1 fell below .05, the nested structure of the data was not considered in the analysis. In most applications of LPA, researchers do not attempt to explicitly test theories on underlying groups in their substantive area, but rather allow the data to suggest the number and nature of such groups (exploratory LPA). In Study 1, however, we draw on substantive theoretical ideas regarding the characteristics of latent groups with different PACNR/PACPR profiles. Akin to confirmatory factor analysis, such conceptual ideas can be explicitly tested by expressing them through a set of parameter restrictions (Finch & Bronk, 2011). Using the confirmatory approach permitted a direct examination of the four qualitatively different groups, whereas an exploratory approach may also include profiles that differ only in quantitative terms (e.g., medium PACPR/medium PACNR). Three types of parameter constraints can be used in CLPA modeling: (1) equality restrictions, (2) deterministic restrictions, and (3) inequality restrictions. Here, to explore how many hypothesized subgroups could be identified in the present sample, we used a set of equality and inequality constraints that expressed the presumed ordering of the PACPR and PACNR means in the respective latent classes.

Overall, we specified and compared the fit of four different CLPA solutions, which represent two, three, and four latent classes, respectively. In the two-class model, we used constraints to specify the subgroups with high PACPR/high PACNR and low PACPR/low PACNR. We tested two three-class models and added constraints to build a third latent class with a high PACPR/low PACNR profile and vice versa. In the four-class model, further constraints allowed us to specify subgroups with all four possible combinations of PACPR and PACNR (see Supplementary Material for the *Mplus* syntax for all CLPA models).

The classification of latent classes was based on the observable response patterns of individuals across the two conditional regard scales (Marsh, Lüdtke, Trautwein, & Morin, 2009; Nylund, Asparouhov, & Muthén, 2007). The affiliation of each person to the respective latent class and the sizes of the respective classes were calculated as model parameters. In the model specification, the default settings recommended in *Mplus* were used so that (1) the

mean values and variances of the class indicators were freely estimated, (2) the variances of the class indicators between the classes were kept constant, and (3) the covariances between the indicators within the classes were fixed at 0. The different CLPA solutions were compared in terms of relative statistical fit (Nylund et al., 2007) and the interpretability of the profile structure (Marsh et al., 2009). Based on recommendations by Nylund et al. (2007), we preferred solutions with the lowest Bayesian information criterion (BIC) and sample-size adjusted Bayesian information criterion (SABIC) values, and highest log-likelihood values (LL). Nylund et al. (2007) also recommend the bootstrapped likelihood ratio test (BLRT). However, BLRT requires one latent class without parameter restrictions (Asparouhov & Muthén, 2012), which is why we could not use this indicator in Study 1. With respect to our specific research question regarding the prevalence of various PACPR/PACNR combinations, we also focused on the size of the latent classes. Next, classification accuracy was checked. An entropy near 1 indicates a statistically reliable solution (Marsh et al., 2009). Finally, we checked the averaged probabilities throughout the participants for the most likely class membership in each latent class. High probabilities that participants belonging to a given class are correctly categorized indicate a high reliability of classification.

In the next step, the identified profiles were related to different correlates. There are different ways on how the effects of latent classes on such “distal outcomes” can be estimated validly. The class-specific mean values of a distal outcome variable can be determined using either a one-step or three-step approach. With the one-step approach, the distal outcome is incorporated into the LPA model as an additional indicator and then estimated as usual. However, the main disadvantage of this approach is that fairly strong assumptions must be made regarding the distribution of the distal outcome within the latent classes. Violating these assumptions can distort the original LPA model completely. Because of these and similar problems, researchers often prefer the three-step approach, where they first build the LPA model without the distal outcomes, determine the class membership probabilities, and then examine relations between class membership and distal outcomes. A known drawback of this approach is that the parameter estimates obtained in the third step may be incorrect because of the measurement error when assigning individuals to the latent classes in step 1. Several solutions have been proposed to reduce this potential bias, including an optimized version of the so-called “class bias.” The BCH method (Bakk & Vermunt, 2016; named after Bolck, Croon, & Hagenaars, 2004), in which an ANOVA weighted by the inverse classification error probabilities is calculated, has proven to be the most valid estimation method to date (Bakk & Vermunt, 2016; Dziak, Bray, Zhang, Zhang, & Lanza, 2016). In Study 1, we therefore relied on the BCH method so that the respective correlates were included in the CLPA models as “auxiliary variables” (Marsh et al., 2009; see Supplementary Material for the *Mplus* syntax).

We conducted the latent profile analysis and BCH method using the total sample to ensure that the allocation of individuals to the different profiles was based on all available information. However, this approach does not allow us to estimate on how many participants the estimations for distal outcomes in each profile rely. Therefore, we replicated the latent profile solution for each subsample, giving us the opportunity, first, to conduct an internal replication of our profile solution and, second, to estimate the number of participants in each profile that reported on the respective outcomes.

RESULTS OF STUDY 1

Number of Latent Profiles

Table 1 displays the fit indices and latent class frequencies for the different CLPA solutions, and Table 2 shows the class-specific means and standard errors (see Supplementary Table S2 for descriptive statistics of all study variables). Adding the high PACPR/low PACNR group as a third class increased the log-likelihood value and decreased BIC and SABIC values. Adding the low PACPR/high PACNR group, however, increased BIC and SABIC. The fit improved slightly for the four-class solution compared to the three-class solution including a high PACPR/low PACNR. However, the subgroup of adolescent students that was assigned to the fourth latent class representing the low PACPR/high PACNR profile was very small (1.4%). On advice of the reviewers, we conducted an additional series of exploratory latent profile analyses (see Supplementary Table S3). The results supported low PACPR/low PACNR, high PACPR/high PACNR, and high PACPR/low PACNR groups. Several profiles emerged that differed in quantitative (but not qualitative ways) along the continuum between low PACPR/low PACNR and high PACPR/high PACNR. However, no low PACPR/high PACNR group

Table 1. Confirmatory latent profile analysis fit indices and latent class frequencies.

	<i>N</i> _{Sample}	<i>N</i> _{Classes}	Latent class frequencies (%)	LL	BIC	SABIC	Entropy
Study 1	3891	2	14, 86	-8681.4	17428.9	17403.5	.95
		3 (PACNR)	14, 86, 0	-8680.7	17444.0	17412.2	.95
		3 (PACPR)	15, 58, 27	-8406.7	16896.1	16864.3	.84
		4	13, 58, 27, 1	-8325.6	16750.4	16712.2	.88
Study 2	556	2	25, 75	-1122.5	2295.6	2270.2	.92
		3 (PACNR)	25, 75, 0	-1122.5	2308.2	2276.5	.95
		3 (PACPR)	24, 44, 31	-1056.2	2175.5	2143.8	.86
		4	24, 45, 30, 1	-1049.2	2174.2	2136.1	.89
Study 3	760	2	26, 74	-1781.8	3616.6	3591.2	.92
		3 (PACNR)	25, 74, 1	-1778.9	3624.2	3592.4	.93
		3 (PACPR)	25, 61, 14	-1699.4	3465.1	3433.3	.90
		4	24, 61, 14, 1	-1677.9	3435.5	3397.4	.93

Bold values represent the final model chosen. PACPR = parental academic conditional positive regard; PACNR = parental academic conditional negative regard. Two 3 class solutions are modeled including PACNR (low PACPR/high PACNR) or PACPR (high PACPR/low PACNR) next to high PACPR/high PACNR and low PACPR/low PACNR. LL = log-likelihood; BIC = Bayesian information criterion; SABIC = sample-size adjusted BIC.

Table 2. Estimated means and standard errors of PACPR, PACNR, and outcome variables (Study 1).

	highPACR <i>M (SE)</i>	lowPACR <i>M (SE)</i>	onlyPACPR <i>M (SE)</i>	χ^2	p
Conditional Positive Regard	3.22 (.02)	1.43 (.02)	3.22 (.02)		
Conditional Negative Regard	2.95 (.04)	1.21 (.01)	1.21 (.01)		
Need for Autonomy	−0.89 ^b (.14)	0.14 ^a (.05)	0.09 ^a (.07)	46.66	<.001
Need for Relatedness	−0.99 ^b (.17)	0.12 ^a (.05)	0.18 ^a (.06)	43.24	<.001
Need for Competence	−0.88 ^c (.13)	0.04 ^b (.05)	0.28 ^a (.07)	62.22	<.001
Self-esteem Level	−0.43 ^b (.07)	0.08 ^a (.04)	0.09 ^a (.06)	43.88	<.001
Self-esteem Contingency	0.58 ^a (.06)	−0.25 ^c (.04)	0.16 ^b (.05)	145.04	<.001
Ability Self-concept	−0.50 ^b (.11)	0.06 ^a (.05)	0.08 ^a (.07)	24.73	<.001
Mastery Goals	−0.36 ^b (.11)	−0.01 ^a (.04)	0.14 ^a (.06)	15.72	<.001
Performance-approach Goals	0.12 ^a (.10)	−0.18 ^b (.04)	0.28 ^a (.05)	40.99	<.001
Performance-avoidance Goals	0.56 ^a (.10)	−0.25 ^c (.04)	0.25 ^b (.06)	92.41	<.001
Test Anxiety	0.45 ^a (.07)	−0.12 ^b (.04)	−0.05 ^b (.06)	57.88	<.001
Depressive Symptoms	0.73 ^a (.08)	−0.09 ^b (.03)	−0.14 ^b (.05)	95.26	<.001

PACPR = parental academic conditional positive regard; PACNR = parental academic conditional negative regard.
 highPACR = high PACPR/high PACNR; lowPACR = low PACPR/low PACNR; onlyPACPR = high PACPR/low PACNR.
 The outcome variables were z-standardized. The means within a row with the same superscripts are not significantly different at $p < .05$.

emerged, with this finding further informing the decision to reject the four-class solution. Therefore, we chose the three-class solution including a subgroup of students high in PACPR and low in PACNR as the final solution. The classification probabilities that participants were categorized correctly were higher than .85, which indicated good reliability of the classification. Moreover, these results were replicated in all subsamples (see Supplementary Table S4).

The largest group of adolescent students (58.1%) was assigned to the low PACPR/low PACNR profile (lowPACR), followed by the high PACPR/low PACNR profile (onlyPACPR), in which 27.3% of the adolescents were classified. In total, 14.5% of the adolescents showed a high PACPR/high PACNR profile (highPACR, see Table 1). Latent class frequencies for the three classes were comparable throughout the subsamples (see Supplementary Table S4). An inspection of the class-specific means of PACPR and PACNR revealed that the parameter constraints implemented in the CLPA models successfully shaped the theoretically expected profiles (see Table 2). The four-class solution yielded a slightly better fit. Therefore, we provide results for this solution in the supplementary for interested readers (see Supplementary Table S5).

Latent Profile Outcomes

Using the BCH approach, we examined whether adolescent students in the three latent profiles differed in the outcome variables. The results revealed a rather clear and differentiated pattern for the three latent classes (see Table 2). Adolescent students with a lowPACR profile showed the most adaptive configuration of outcomes, that is the relatively highest values in

basic need satisfaction, self-esteem level, ability self-concept, and mastery goals as well as the lowest values in self-esteem contingency, performance-approach goals, performance-avoidance goals, test anxiety, and depressive symptoms. Adolescent students in the onlyPACPR profile differed from the lowPACR group in reporting a higher satisfaction of the need for competence, higher self-esteem contingency, and higher scores on performance-approach and performance-avoidance goals. The subgroup of students in the highPACR profile (high PACPR/high PACNR) revealed a remarkably maladaptive outcome pattern compared to the lowPACR and onlyPACPR groups. Specifically, these adolescent students scored relatively lowest on basic need satisfaction, self-esteem level and ability self-concept, highest on self-esteem contingency and depressive symptoms, and lowest on mastery goals but highest on performance-approach and performance-avoidance goals.

DISCUSSION OF STUDY 1

As expected, the majority (58.1%) of adolescent students reported having received only low levels of both conditionally regarding strategies. This result is in line with the findings of variable-oriented studies that show low mean scores on conditional regard scales (Assor & Tal, 2012; Roth et al., 2009). An additional 14.5% of adolescent students reported high levels of both strategies, which indicated that the majority of parents were perceived as either using or not using conditional regard as a socialization strategy. Still, more than a quarter of the adolescents (27.3%) perceived their parents as using the seemingly benevolent strategy of PACPR without threatening with love withdrawal, which supported the idea that PACPR and PACNR should be treated as specific and distinct controlling strategies. The rather high prevalence of this profile emphasizes the importance of investigating the functionality of this parenting profile.

The results reveal a rather clear and expected pattern for adolescent students who perceive high levels of both dimensions of conditional regard. First, when children perceive overall high (in contrast to low) levels of conditional regard, they also experience less basic need satisfaction in the respective parent–child relationship, which supports the idea that conditional regard relates to an impaired parent–child relationship (Cohen et al., 2020; Kanat-Maymon et al., 2016). In line with the literature, children in this group also showed lower self-esteem levels and higher self-esteem contingency, leaving them vulnerable to situations when achievement cannot be guaranteed or drops (Wouters et al., 2018). Our results provide the first direct evidence that children who perceive overall high levels of conditional regard prefer performance goals and are less mastery oriented. At the same time, the children believed that their competence was rather low. These results suggest that performance is more salient in the learning process for children who perceive conditional regard, while children

are more insecure whether success can be achieved. Based on previous studies, it can be expected that this constellation of factors will be associated with deficits in learning quality, subsequent performance (Spinath & Stiensmeier-Pelster, 2003), and test anxiety (Pekrun, 2006). In line with this deduction, children who perceive overall high levels of conditional regard report more anxiety about failing in school. Moreover, associations with the child's affective functioning are not only limited to the school context but are also manifested in elevated scores of general depressive symptoms.

Meaningful differences emerged between the onlyPACPR and lowPACR group. In line with our hypotheses, our results suggest that adolescent students in the onlyPACPR group are highly motivated to engage in school tasks by showing a higher performance-approach and equal mastery orientation compared to the lowPACR group. This constellation of outcomes is likely to make children appear more active and engaged (Van der Kaap-Deeder et al., 2016). If parents experience this kind of activation in their children when using PACPR, this could explain the popularity of this socialization strategy among parents and parenting books. However, we argue that the possible benefits are short-lived. Students in this profile also display elevated levels of contingent self-esteem, which indicates that their motivation and engagement are driven by a fragile sense of self-worth. Based on the literature on contingent self-esteem, we assume that adolescent students in the onlyPACPR group are likely to switch from mastery orientation to performance-approach orientation as soon as an evaluation is anticipated (Van der Kaap-Deeder et al., 2016). This may indeed lead to higher performance outcomes if success is assured (Spinath & Stiensmeier-Pelster, 2003). Because of their rather high ability self-concept, these students are also likely to expect success when first failures occur and then increase engagement. However, when failure recurs and success in validating competence does not seem to be attainable, they may switch to a performance-avoidance orientation and to self-protecting strategies, which may explain their elevated scores in performance-avoidance goals. This idea is supported by a prospective study that demonstrated the role of parental academic conditional regard in children's helpless coping with failure in a difficult performance task (Assor et al., 2020). Thus, in situations with difficult performance tasks, learning quality will be hampered because these children mainly aim to gain regard and secure their self-esteem.

STUDY 2: UNIVERSITY FRESHMEN

Study 2 aimed to replicate the profile solution found in Study 1 in a sample of university freshmen. Adolescents live with their parents, but university students in Germany generally move out to study so parenting is more distal to them. However, the results of Study 1 showed that parenting during schooling is related to affective and cognitive self-evaluations, as well as goal orientation,

variables that have been found to be relatively stable (Anusic & Schimmack, 2016; Arens & Watermann, 2015; Burwell & Shirk, 2006; Helmke & van Aken, 1995; Kuster, Orth, & Meier, 2012; Pulkka & Niemivirta, 2013). Thus, we assumed that conditional regard would still be associated with important outcomes in university students.

METHOD OF STUDY 2

Participants and Procedure

Participants were 556 university students (74.3% women; $M_{\text{age}} = 22.14$ years, $SD_{\text{age}} = 4.44$), who studied teaching. Participants were recruited via e-mail ($n = 180$), seminars ($n = 135$), or lectures ($n = 241$) on the introduction to psychology for teaching students. Only students from the lecture sample reported the outcome variables.

Measures

For each measure (except for contingent self-esteem), we used the same items as in Study 1 but adjusted to the university context.

Parental Academic Conditional Regard

University students reported retrospectively on their mothers' conditional regard during their own schooling (PACPR: "When I got a good grade at school, I noticed that my mother was much warmer toward me than she usually was."; PACNR: "When I got a bad grade at school, I noticed that my mother showed less affection for me than usual."). Cronbach's alphas in the present sample were .93 for PACNR and .92 for PACPR.

Self-Esteem

The items assessed students' contingency on their competence (e.g., "I feel inferior when others notice that I am not good at something."; 8 items), performance (e.g., "How valuable I feel is strongly influenced by how others judge my performance."; 2 items), and working attitude (e.g., "My self-esteem is very much dependent on how disciplined I work on a thing."; 6 items). A 5-point Likert scale was used ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach's alphas in the present sample were .84 and .88 for self-esteem level and self-esteem contingency, respectively.

Academic Ability Self-Concept

Cronbach's alpha in the present sample was .85.

Goal Orientation

Cronbach's alphas in the present sample were .84 for mastery orientation, .81 for performance-approach orientation, and .91 for performance-avoidance orientation.

RESULTS OF STUDY 2

Number of Latent Profiles

The statistical plan of analysis was identical to that of Study 1. The fit indices and latent class frequencies for the different CLPA solutions are displayed in Table 1, and the class-specific means and standard errors are displayed in Table 3 (see Supplementary Table S6 for descriptive statistics of all study variables). Adding the high PACPR/low PACNR group increased the log-likelihood value, BIC, and SABIC values decreased. BIC and SABIC increased when the onlyPACNR group was added as the third group. Compared to the three-class model, including high PACPR/low PACNR, decreases in BIC and SABIC values were only small when the fourth group was added. Additionally, the class frequency in the fourth class was very small (0.7%). In accordance with Study 1, these results supported the three-class solution with the onlyPACPR group as the third group. The classification probabilities that participants were categorized correctly were higher than .91, which indicated excellent reliability of the classification.

The largest group of university students (44.4%) was allocated to the low PACPR/low PACNR profile (lowPACR, see Table 1). In total, 31.3% of the university students were classified into the high PACPR/low PACNR profile (onlyPACPR), followed by the high PACPR/high PACNR profile (highPACR), in which 24.3% of the university students were classified. An inspection of the class-specific means of PACPR and PACNR revealed that the parameter constraints implemented in the CLPA models successfully shaped the theoretically expected profiles (see Table 3).

Table 3. Estimated means and standard errors of PACPR, PACNR, and outcome variables (Study 2).

	highPACR <i>M (SE)</i>	lowPACR <i>M (SE)</i>	onlyPACPR <i>M (SE)</i>	χ^2	<i>p</i>
Conditional Positive Regard	3.03 (.04)	1.41 (.04)	3.03 (.04)		
Conditional Negative Regard	2.61 (.07)	1.13 (.02)	1.13 (.02)		
Self-esteem Level	−0.17 (.14)	0.09 (.10)	−0.05 (.12)	2.37	.306
Self-esteem Contingency	0.39 ^a (.14)	−0.14 ^b (.09)	0.00 ^{a,b} (.14)	9.65	.008
Ability Self-concept	−0.10 (.12)	0.02 (.10)	0.02 (.15)	0.65	.722
Mastery Goals	−0.00 (.14)	−0.07 (.10)	0.12 (.12)	1.30	.521
Performance-approach Goals	0.25 (.16)	−0.15 (.10)	0.11 (.12)	5.36	.069
Performance-avoidance Goals	0.51 ^a (.16)	−0.10 ^b (.09)	−0.15 ^b (.13)	12.66	.002

PACPR = parental academic conditional positive regard; PACNR = parental academic conditional negative regard. highPACR = high PACPR/high PACNR; lowPACR = low PACPR/low PACNR; onlyPACPR = high PACPR/low PACNR. The outcome variables were z-standardized. The means within a row with the same superscripts are not significantly different at $p < .05$.

Latent Profile Outcomes

As in Study 1, we used the BCH approach to examine the differences between profiles in several outcome variables. The results show that the lowPACR group displayed a more favorable pattern of outcomes than the highPACR group by reporting lower contingent self-esteem and lower performance-approach and performance-avoidance goal orientation. The onlyPACPR group was in between the highPACR and lowPACR groups concerning contingent self-esteem but did not differ significantly from the other groups. The onlyPACPR group differed from the highPACR group only by showing less performance-avoidance goal orientation. The results revealed no significant differences between the groups for self-esteem level, ability self-concept, and mastery goals.

DISCUSSION OF STUDY 2

The results obtained from the sample of university students replicated the results from the adolescent sample in Study 1 on the number and nature of profiles. However, relatively more university students were allocated to the highPACR profile and fewer to the lowPACR profile. A possible explanation for the difference between the two samples may be the difference in sample representativeness in terms of educational level because university students are highly selective. Parental performance expectations influence educational choices in secondary schools (Neuenschwander, Fräulin, Jüttler, & Schumann, 2019). Conditional regard may signal parents' expectations of achievement and the value of academic education, which leads children to prefer university education over nonacademic education. This hypothesis should be tested using longitudinal studies that follow up on adolescents at the transition from school to university.

In line with the literature and with findings of Study 1, overall high levels of conditional regard in high school years related to higher contingent self-esteem and to a performance-avoidance goal orientation. This finding suggests that experiences of conditional regard during high school years are related to problematic developmental outcomes even after the transition to university. Almost one in three students reported experiencing only the seemingly benevolent parenting practice of PACPR. Our findings contradict the idea that PACPR is beneficial in promoting students' learning and instead support the role of self-esteem contingency as a central developmental outcome associated with PACPR.

In contrast to Study 1, the groups did not differ with respect to self-esteem level, ability self-concept, mastery goal orientation, and performance-approach goal orientation. These findings suggest that parenting is already more distal for college students than for school-age children who still live with

their parents. However, the sample size was also smaller than that of the adolescent sample, resulting in larger standard errors, which made it less probable to identify small effects.

It should be noted that the measure of conditional regard was retrospective and that this measure can be biased by university students' current self-esteem and motivation. For instance, university students with more fragile self-worth may have more negative memories of their parents, even when their parents did not actually engage in more dysfunctional practices in adolescence.

STUDY 3: PARENTS OF ADOLESCENT STUDENTS

Study 3 aimed to investigate profiles in parents of schoolchildren. This sample differs from adolescents and university freshmen in two important aspects. First, using adults' recollections of conditional regard in their high school years, there was a larger time gap between the report and the actual parenting behavior than that in Study 2. Second, the parents were no longer in the position of being a learner. Instead, when it comes to academics, their focus may have shifted to their child's school performance. Thus, this sample allows us to investigate associations from recollections of conditional regard and individuals' functioning throughout their lifetime and up to parenthood. Therefore, we addressed parent-focused variables (self-esteem level and depressive symptoms) and outcomes specific to current parent–child relationships (child-invested contingent self-esteem and parenting sense of competence).

Because self-esteem appears to play a key role in how conditional regard may exert lasting effects, adults' current self-esteem may still be associated with conditional regard. To provide first hints for this hypothesis, mothers' recollections of grandmaternal use of conditional regard were found to be associated with lowered self-esteem levels (Assor et al., 2004). However, PACNR and PACPR were not differentiated in that study. Parallel to findings on conditional regard and self-esteem (Curran, 2018; Israeli-Halevi et al., 2015; Ryan & Deci, 2017; Wouters et al., 2018), we expected that, while PACNR should be related to lowered self-esteem levels, both forms of conditional regard should relate to contingent self-esteem, even in adulthood. As the child's achievements may have moved to the foreground, we assumed that this contingency may manifest in parents hinging their self-esteem on their child's achievements (child-invested contingent self-esteem; Ng et al., 2014). Next, parents develop a self-concept about their ability to manage parenting tasks (Coleman & Karraker, 1997; Egberts, Prinzie, Deković, de Haan, & van Den Akker, 2015). According to our line of argumentation for ability self-concept, we assumed that PACNR is likely to make parents' own failures more salient, while PACPR should increase the salience of successes. On the assumption of the skill-development approach (e.g., Helmke & van Aken, 1995), this

attentional focus is likely to influence the evaluation of one's abilities also in terms of parenting competences. However, as with ability self-concept, we assume that both conditional regard strategies lead to implicit insecurity about competences. Parents may be worried that their children may not meet expectations, resulting in concerns and fluctuations in their evaluation of their own competence as a parent. Finally, we expected to replicate the findings from Study 1 on depressive symptoms. This finding would underscore the association between parenting and affective functioning throughout life.

METHOD OF STUDY 3

Participants and Procedure

The adult sample consisted of parents from children who were included in Study 1. Seven (31.8%) schools from three different federal states participated in the parent survey. Schools were chosen for convenience and by considering all the different school tracks. Children from these schools received envelopes with questionnaires for their parents. Parents were invited to complete the survey at home and to return the sealed envelopes to the school via their children. A total of 760 parents participated, and the response rate was 65.7%.

Participants' ages ranged between 28 and 60 years, with a mean age of 45.0 years ($SD = 5.06$), and 88.7% were women. This high participation of mothers corresponds to the finding of Study 1, where 92.3% of the adolescents indicated their mother as the main caregiver. For education, 0.8% had no school leaving qualification, 5.2% attended the lowest track of school, 24.0% attended the middle track, and 57.4% attended the highest track. A comparison with data from the Federal Statistical Office of Germany, which indicated that from individuals aged between 25 and 60, 40.2% graduated from the highest track and 21.7% from the lowest (Statistisches Bundesamt [Destatis], 2020), revealed that mothers who graduated from the highest track were overrepresented, and mothers who graduated from the lowest track were underrepresented in the present sample.

Measures

The parent dataset consisted of two subsamples that provided reports on self-esteem facets and depressive symptoms, or parenting sense of competence.

Parental Academic Conditional Regard

We used the same scales as in Study 2 to measure participants' retrospective perception of parental conditional regard. Cronbach's alphas in the present sample were .96 for PACNR and .97 for PACPR.

Self-Esteem

The self-esteem level was measured using the same items as in Studies 1 and 2. The Cronbach's alpha was .84 in the current sample. Parents' child-invested contingent self-esteem was measured using the German translation (Otterpohl et al., 2020) of the scale *Child-based Worth* developed by Eaton and Pomerantz (2004; quoted from Ng et al., 2014). The scale consists of 15 items using a 7-point scale ranging from 1 (*very much disagree*) to 7 (*very much agree*). The items asked for the extent to which parents hinge their self-esteem on their child's success (e.g., "When my child succeeds, I feel good about myself."; 4 items), failure (e.g., "My child's failures can make me feel ashamed."; 6 items), and achievement in general (e.g., "How I feel about myself does not depend on what my child does."; 5 items). Cronbach's alpha in the present sample was .88 ($n = 240$).

Parenting Sense of Competence

A German translation of the *Parenting Sense of Competence Scale* was used to measure parents' ability self-concept on their parenting (Johnston & Mash, 1989). We used the efficacy subscale that contains seven judgments on parenting abilities and effectiveness (e.g., "I honestly believe I have all the skills necessary to be a good mother/father to my child.") using a 6-point scale, ranging from 1 (*very much disagree*) to 6 (*very much agree*). Cronbach's alpha in the present sample was .71 ($n = 517$).

Depressive Symptoms

We measured parents' depressive symptoms during the last two weeks using the German version of the revised edition of the *Beck Depression Inventory* (Hautzinger, Bailer, Worall, & Keller, 2009). Parents rated each of the 21 depressive symptoms (e.g., depressed mood, lack of interest) by choosing the most appropriate of 4 statements describing different severity (0 = *not present* to 3 = *severe*) of the respective symptoms. Cronbach's alpha in the present sample was .91 ($n = 240$).

RESULTS OF STUDY 3

Number of Latent Profiles

We conducted the same set of CLPA as in Studies 1 and 2. The fit indices and latent class frequencies for the different CLPA solutions are shown in Table 1, and the class-specific means and standard errors are shown in Table 4 (see Supplementary Table S7 for descriptive statistics of all study variables). In accordance with the results of Studies 1 and 2, our analyses supported the three-class solution with high PACPR/low PACNR as the third group. Including low PACPR/high PACNR as the third group diminished the fit.

Again, the four-class solution only showed a slightly better fit compared to the three-class solution including high PACPR/low PACNR and class frequency in the low PACPR/high PACNR class was very small (1.2%).

A very large group of parents (61.4%) was allocated to the low PACPR/low PACNR profile (lowPACR; see Table 1). In contrast to Studies 1 and 2, the second largest group was the high PACPR/high PACNR profile (highPACR), in which 24.5% of the parents were classified. Fewer parents (14.1%) were allocated to the high PACPR/low PACNR profile (onlyPACPR). The classification probabilities were higher than .86, which indicated good classification reliability. An inspection of the class-specific means of PACPR and PACNR revealed that the parameter constraints implemented in the CLPA models successfully shaped the theoretically expected profiles (see Table 4).

Latent Profile Outcomes

The highPACR group scored less favorably than the lowPACR group on all outcomes by showing lower self-esteem level, higher self-esteem contingency, lower parenting sense of competence, and higher depressive symptoms. The onlyPACPR group did not differ from the highPACR group on self-esteem level and contingency, thereby scoring less favorably than the lowPACR group. The onlyPACPR group did not differ from the lowPACR group on parenting sense of competence and depressive symptoms.

DISCUSSION OF STUDY 3

As in Studies 1 and 2, the fit indices supported the three-profile solution. More parents (85.9%) than adolescent students (72.6%) or university students (68.7%) perceived either high or low levels of both strategies. It is possible that this result depicts a shift in reports away from specific parenting behaviors to a more general feeling of having been unconditionally or conditionally loved. However, a profile with a unique role for PACPR still emerged.

Table 4. Estimated means and standard errors of PACPR, PACNR, and outcome variables (Study 3).

	highPACR <i>M</i> (<i>SE</i>)	lowPACR <i>M</i> (<i>SE</i>)	onlyPACPR <i>M</i> (<i>SE</i>)	χ^2	<i>p</i>
Conditional Positive Regard	3.14 (.04)	1.31 (.02)	3.14 (.04)		
Conditional Negative Regard	3.16 (.06)	1.29 (.02)	1.29 (.02)		
Self-esteem Level	-0.48 ^b (.17)	0.25 ^a (.07)	-0.28 ^b (.18)	20.75	<.001
Child-invested Contingent Self-esteem	0.28 ^a (.13)	-0.27 ^b (.08)	0.62 ^a (.17)	29.32	<.001
Parenting Sense of Competence	-0.24 ^b (.08)	0.09 ^a (.06)	0.21 ^a (.12)	12.85	.002
Depressive Symptoms	0.52 ^a (.20)	-0.16 ^b (.07)	-0.01 ^b (.16)	10.73	.005

PACPR = parental academic conditional positive regard; PACNR = parental academic conditional negative regard.
 highPACR = high PACPR/high PACNR; lowPACR = low PACPR/low PACNR; onlyPACPR = high PACPR/low PACNR.
 The outcome variables were *z*-standardized. The means within a row with the same superscripts are not significantly different at $p < .05$.

Parents reporting high levels of both dimensions of conditional regard (highPACR) in contrast to low levels (lowPACR) show clear and expected maladaptive functioning on all outcomes investigated. These findings are in line with the literature and results of Study 1. Conditional regard may be a precursor of lifelong vulnerability. This reasoning is congruent with early hypotheses by Rogers, who assumed that children who experienced conditional regard during childhood never got to know the feeling of acceptance and will feel “dumb, insufficient, and inferior throughout their life” (Rogers, 1983, p. 220).

Overall, and in line with Studies 1 and 2, adjustment of parents high in PACPR fell in between the two other groups. However, we found a strong association between onlyPACPR and an unfavorable adjustment in the domain of self-esteem, which matches the literature (Assor et al., 2004). This finding implies that individuals who perceive only high PACPR during adolescence display a fragile and unstable sense of self-worth even later in life, potentially putting them at risk for long-term vulnerability (Kernis, 2003; Ryan & Brown, 2003; Ryan & Deci, 2017).

GENERAL DISCUSSION

This study investigated within-person combinations of perceived parental academic conditional positive and negative regard and their functionality in three different populations: adolescent students, university students, and parents of school-age children. Confirmatory latent profile analysis supported three of the four theoretically possible profiles of conditional positive regard and conditional negative regard in all samples: high on both (highPACR), low on both (lowPACR), and high on PACPR but low on PACNR (onlyPACPR). Overall, educational and psychological adjustment was the poorest in the highPACR group and highest in the lowPACR group. Adjustment of the onlyPACPR group fell in between and differed with regard to self-esteem contingency from the lowPACR group.

Prevalence of the profiles was comparable across studies. The lowPACR profile was the most common. The prevalences of the onlyPACPR and highPACR groups followed in size with slight differences between studies. The sample size of a fourth class (low PACPR/high PACNR) was too small to be considered as a valid group in our samples. Nevertheless, from a theoretical point of view, it is still possible that this group may be identified with a higher prevalence in other samples. For example, other cultural groups may show a higher prevalence of this profile characterized by elevated conditional negative regard only; for example, Chinese (vs. European American) children report that their parents react in a failure-oriented way to performance (Ng, Pomerantz, & Lam, 2007) and react harshly when they fail, but they do not react positively when they succeed (Qin, Way, & Et Mukherjee, 2008). In

addition, because conditional negative regard is linked to negative developmental outcomes such as low self-esteem and depression (Otterpohl et al., 2017; Wouters et al., 2018), it is likely more prevalent in families who receive parental counseling or mental health treatment.

Functionality of Parental Conditional Regard Profiles

The results of all three studies are in line with the assumption that the experience of PACNR is accompanied by clear dysfunctional correlates. As proposed in self-determination and attachment theory, love withdrawal is detrimental to development because it constitutes a direct threat to basic psychological needs and attachment (Bowlby, 1969; Deci & Ryan, 2000). In this respect, all three studies support that individuals reporting high PACNR show unfavorable developmental outcomes and replicate findings from variable-oriented studies for various outcomes (e.g., Assor & Tal, 2012; Roth et al., 2009; Wouters et al., 2018).

The results for individuals who only experience high PACPR are of particular interest because the functionality of this practice is judged differently by behaviorist theories and SDT (Gewirtz & Peláez-Nogueras, 1991; Ryan & Deci, 2017). In general, individuals who experience only PACPR report a less maladaptive pattern of outcomes than individuals who additionally perceive PACNR. Nevertheless, individuals in the onlyPACPR group fare worse than individuals experiencing generally low levels of conditional regard. Adolescents in the onlyPACPR profile can be described as highly involved and motivated (high mastery orientation, high performance-approach, and high performance-avoidance orientation). At the same time, they do not report general negative consequences for psychological health (no lowered ability self-concept and no heightened test anxiety or depressive symptoms); however, they display a brittle sense of worth. This insecure type of self-esteem was also observed in university students, where the onlyPACPR group scored in between the highPACR and lowPACR groups in contingent self-esteem. The onlyPACPR parent group showed equally high levels of contingent self-esteem as the highPACR group. Even in the absence of conditional negative regard, conditional positive regard shows, if any, associations with detrimental outcomes. This finding is noteworthy considering that more than one in four adolescents and university students and 14.1% of the parents belong to the onlyPACPR group.

Although this fragile and conditional type of self-esteem may have some positive short-term effects on engagement, contingent self-esteem may increase the risk of maladjustment over time, particularly in interaction with negative life events. Indeed, people who experience only PACPR and display contingent self-esteem may adjust well as long as they perform well and receive positive feedback because basic needs can at least be superficially

satisfied. However, they may become vulnerable to ill-being and poor adjustment when facing setbacks (e.g., poor grades) or negative feedback. We assume that in these situations, individuals will not be flexible in their striving to obtain approval but are “overcommitted” to their goal of academic achievement and, therefore, have problems deactivating their goal intentions (Hallsten, Josephson, & Torgén, 2005; Kudielka, Känel, Gander, & Fischer, 2004). Therefore, their striving may become excessive, potentially resulting in overinvestment and difficulties relaxing and calming down, while the expected approval remains missing (Hallsten et al., 2005). Individuals may also prefer behavior in the relatedness-relevant domain to behavior in domains of personal interest, thereby hindering the individual’s growth tendencies that are inherent in intrinsic activity (Ryan & Deci, 2017). We propose that individuals who only experience PACPR may be prone to workaholism (working compulsively and excessively), and burnout symptoms, such as emotional exhaustion, are more likely to occur because of the effort–reward imbalance (Siegrist et al., 2004; Van Wijhe, Peeters, & Schaufeli, 2014). Future studies should examine the interplay between PACPR, contingent self-esteem, and negative life events or hassles in predicting adjustment and achievement in the academic context and across the life span.

In addition to the possibility that PACPR increases the risk of maladjustment when facing setbacks, one may wonder about the quality of individual engagement when they experience conditional positive regard and have contingent self-esteem. Parallel to findings on contingent self-esteem and in line with results from Study 1, individuals who only experience PACPR are likely to show higher autonomous and controlled motivation at the same time (Van der Kaap-Deeder et al., 2016). Individuals high in contingent self-esteem may enjoy learning until an evaluation is anticipated because evaluation may pose a potential threat. Consequently, they switch to a more controlled form of motivation regulation. In comparison to adolescent students who are mainly mastery-oriented, adolescent students who additionally endorse performance goals report similar vigor, dedication, and absorption, but at the same time report more exhaustion and cynicism during schoolwork (Tuominen-Soini, Salmela-Aro, & Niemivirta, 2012). Thus, the motivational constellation found for individuals who only experience PACPR is likely associated with lower learning quality (Spinath & Stiensmeier-Pelster, 2003), lower affective functioning in learning (Tuominen-Soini et al., 2012; Van der Kaap-Deeder et al., 2016), and constant concerns on performance outcomes (Tuominen-Soini et al., 2012).

Strengths, Limitations, and Future Directions

Overall, this study has several strengths. It includes three large samples from different populations, which allowed us to replicate findings and investigate functionality in a very broad manner. Using a person-oriented approach

enabled us to provide evidence for the real-life value of the distinction between conditional negative and positive regard and their differential associations with individuals' general and educational adjustment. These findings have potential applied value because the identification of conditional regard profiles in school counseling may help to identify the antecedents of academic striving, lower learning quality, or emotional disaffection.

This study has several limitations as well. First, the cross-sectional and single-informant design restrict conclusions and did not allow us to disentangle possible causal mechanisms of action, which is important because the relation between parenting and children's adjustment is inherently reciprocal (Otterpohl & Wild, 2015; Soenens, Luyckx, Vansteenkiste, Duriez, & Goossens, 2008). In addition, the use of self-report measures may have led to an overestimation of associations between conditional regard and outcomes. For example, participants with higher contingent self-esteem may project a conditionally approving attitude toward their parents, even when their parents do not actually engage in conditionally regarding practices. It is also possible that individuals who feel close and loyal toward their parents respond in more socially desirable ways to questions about parenting, particularly in the case of the obviously unfavorable form of conditional negative regard. This social desirability may have led to an overestimation of the onlyPACPR group in size and an underestimation of the prevalence of the highPACR and even the onlyPACNR profiles. In general, longitudinal research is needed to test profile stability and cross-lagged effects. By using multiple informants for parenting measures, future studies could strengthen findings regarding the reliability of profiles and profile functionality.

We deliberately chose to identify profiles only on the basis of PACNR and PACPR, without including other parenting dimensions. This analysis focusing only on the two dimensions of conditional regard is an important first step to determine whether these dimensions are distinct. Having established distinct profiles of conditional regard, future research can now add other parenting dimensions to the analysis of these profiles, such as parental warmth, autonomy support, and structure. Although conditional regard is considered an autonomy-suppressing parental strategy, it is possible that some parents combine the use of conditional regard with episodes of autonomy-support, resulting in a profile combining high conditional regard with autonomy-support. Perhaps this combination occurs more often with PACPR than with PACNR because in PACPR important components of intrusiveness are not evident, which makes it appear less harmful. Parents may combine an autonomy-supportive parenting style with occasional praise that conveys the message of PACPR. Similarly, some parents may combine high levels of conditional regard with parental warmth. Studies taking a variable-oriented approach have shown that this combination can be detrimental to children's development (e.g., Aunola & Nurmi, 2005; Kanat-Maymon & Assor, 2010;

Wouters, Doumen, Germeijs, Colpin, & Verschueren, 2013). Rather than buffering against the maladaptive effects of controlling parenting, high levels of parental warmth have been found to exacerbate effects of parental control, presumably because children get caught in a loyalty conflict with parents who are highly involved and warm yet pressuring. Whereas some parents may combine high levels of conditional regard with high levels of structure (i.e., clear communication of rules) in an attempt to enforce rules through pressuring means, other parents may be high on conditional regard but low on structure. These parents may use conditional regard in a more unpredictable fashion, resulting in a pressuring and at the same time chaotic parenting style with detrimental repercussions for children's adjustment (Rodríguez-Meirinhos et al., 2020).

Our results reveal robust associations between the two dimensions of parental conditional regard and contingent self-esteem. Although they report the same amount of contingent self-esteem, individuals who only perceive high levels of PACPR clearly differ in their affective functioning from individuals who perceive high levels of both strategies. Only experiencing heightened regard in the face of success may specifically foster self-esteem increases following success, whereas PACNR may mainly impact decreases in self-esteem following failure (Li et al., 2019).

IMPLICATIONS FOR THEORY AND PRACTICE

The present studies are the first to apply a person-oriented approach to research on the two dimensions of parental conditional regard. The findings underscore the theoretical distinction between conditional positive and negative regard. In addition to profiles characterized by overall low and overall high levels of conditional regard, quite a few people reported high levels of conditional positive regard only. As such, these two dimensions are not merely two sides of the same coin, and it is important to examine their specific and differential effects on individuals' general and school-specific adjustments. The results also inform practice in so far as the person-oriented approach allows for single case conclusions. People experiencing overall high levels of conditional regard displayed the least favorable motivational and affective outcomes. Compared to people experiencing overall low levels of conditional regard, people experiencing only high levels of conditional positive regard displayed signs of vulnerability in the form of contingent self-esteem. This fragile type of self-esteem may increase individuals' risk of displaying ill-being in the long run, particularly when confronted with setbacks, challenges, and failures. As such, future longitudinal studies should do well to examine the long-term sequelae of the profiles identified herein.

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ADDRESSES AND AFFILIATIONS

Sarah Teresa Steffgen,

Department of Educational Psychology, Justus Liebig University Giessen, Germany. Email: sarah.t.steffgen@psychol.uni-giessen.de.

Bart Soenens is at Ghent University.

Nantje Otterpohl and Malte Schwinger are at Philipps University of Marburg, and Joachim Stiensmeier-Pelster is at Justus Liebig University Giessen.

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Ethical principles

The authors affirm having followed professional ethical guidelines in preparing this work. These guidelines include obtaining informed consent from human participants, maintaining ethical treatment and respect for the rights of human or animal participants, and ensuring the privacy of participants and their data, such as ensuring that individual participants cannot be identified in reported results or from publicly available original or archival data.

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ORCID

Sarah Teresa Steffgen  <http://orcid.org/0000-0003-4965-8156>

Bart Soenens  <http://orcid.org/0000-0003-1581-3656>

Nantje Otterpohl  <http://orcid.org/0000-0002-9463-5554>

Malte Schwinger  <http://orcid.org/0000-0002-3413-5662>

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