Feeling Seen, Feeling Joyful: An Intensive Longitudinal Study on Parenting Joy, Perceived Partner Responsiveness, and Parenthood Regret

Ziwen Teuber[1], Elouise Botes[1], Konrad Piotrowski[2], Kaisa Aunola[3],

Samuel Greiff[4], and Daniel McNeish[5]

[1] Department of Behavioral and Cognitive Sciences, University of Luxembourg, Luxembourg

[2] Institute of Psychology, SWPS University, Poland

[3] Department of Psychology, University of Jyväskylä, Finland

[4] School of Social Sciences and Technology, Technical University Munich, Germany

[5] Department of Psychology, Arizona State University, United States

Version: Preprint V1 (not peer-reviewed); October 15, 2025

Related Preregistration Protocol: https://doi.org/10.17605/OSF.IO/4XGA6

Correspondence concerning this article should be addressed to Dr. Ziwen Teuber, Department of Behavioral and Cognitive Sciences, University of Luxembourg; L-4365 Esch-sur-Alzette, 2, place de I'Université; Email: ziwen.teuber@uni.lu; http://orcid.org/0000-0002-3745-9021

Author Contribution

Z.T.: Conceptualization; Methodology; Formal Analysis; Data Curation; Writing – Original Draft; Writing – Review and Editing; Visualization; Project administration

E.B.: Conceptualization; Data curation; Writing – Review and Editing; Project administration

K.P.: Writing – Original Draft; Writing – Review and Editing

K.A.: Writing – Review and Editing

S.G.: Writing – Review and Editing

D.M.: Methodology; Formal Analysis; Writing – Original Draft; Writing – Review and Editing; Visualization

Ethics Declarations

Conflict of Interest

The authors declare that there are no potential conflicts of interest concerning the research, authorship, and/or publication of this article.

Ethical Approval and Informed Consent

The study protocol (2023/W/021) was approved by Departmental Review Board of the Department of Occupational, Economic, and Social Psychology of the University of Vienna. Participation was voluntary, and informed consent was obtained from all individual participants included in the studies.

Abstract

Particularly for parents, the Christmas season is an emotionally intense period that offers a valuable window into affective and family dynamics. Drawing on a positive psychology perspective, we aimed to investigate how parenting joy and perceived partner responsiveness covary during this time and how they are related to the longer-term development of parenthood regret. We collected 35 days of experience sampling data, complemented by baseline and follow-up measures, from 269 parents in the United Kingdom (13,249 total observations). Using dynamic structural equation modeling (DSEM), we examined the within-person dynamics between momentary parenting joy and momentary perceived partner responsiveness. At the between-person level, we explored how participants' average levels of these momentary experiences predicted changes in parenthood regret from baseline to follow-up. DSEM revealed a unidirectional, positive prediction from perceived partner responsiveness to parenting joy at the within-person level. At the between-person level, person means of joy moderated parenthood regret from baseline to follow-up, after relevant sociodemographic variables were controlled for. These findings contribute to the emerging literature on parenthood regret by emphasizing the role of daily emotional experiences and partner dynamics in shaping parental identity. Practically speaking, even small everyday adjustments in family interactions may meaningfully dampen parenthood regret.

Keywords: experience sampling method, dynamic structural equation modeling (DSEM), family dynamics, parenting stress and resilience, romantic relationships

Feeling Seen, Feeling Joyful: An Intensive Longitudinal Study on Parenting Joy, Perceived Partner Responsiveness, and Parenthood Regret

Celebrated by approximately two billion people worldwide each year (Syrek et al., 2018), Christmas is often idealized as a season of joy, connection, and family togetherness (Miller, 2017; Syrek et al., 2018). Meanwhile, it has also been well-documented as a source of heightened stress and emotional strain (e.g., Schneider et al., 2023). This duality is particularly salient for parents, who are expected to manage logistics, uphold traditions, and create joyful experiences for their children. As such, the Christmas season provides a valuable context for studying affective and family dynamics. One aspect that may fluctuate during this season is parenting joy—the fulfillment and emotional reward parents derive from interacting with their children (Leerkes & Augustine, 2019). An interpersonal resource that may support parents' emotional well-being during this period is perceived partner responsiveness (Ter Kuile et al., 2017), that is, feeling understood, valued, and cared for by one's partner (Reis et al., 2004). We hypothesized that perceived partner responsiveness enhances parents' capacity to experience parenting joy during the Christmas season and that both partner responsiveness and parenting joy can buffer against the development of parenthood regret. Parenthood regret reflects a deep, often stigmatized cognitive-emotional experience in which individuals question or mourn their decision to become a parent (Piotrowski et al., 2023). Though relatively understudied, it has critical implications for parental well-being, family functioning, and child development (e.g., Piotrowski, 2021; Piotrowski et al., 2023). Examining how momentary experiences of parenting joy and partner responsiveness covary during the Christmas season and how they are related to parenthood regret can provide important insights into the factors that shape parental well-being and identity over time.

Parenthood Regret as a Research Agenda

Regret is a complex, negatively valenced self-conscious emotion, underpinned by counterfactual thinking; it arises when individuals reflect on a past decision or (in)action and believe that a different choice would have led to a better outcome (Zeelenberg, 1999). Parenthood regret refers to a parent's negative appraisal of their parental role and typically occurs when they question or mourn their decision to become a parent (Piotrowski et al., 2023, 2024). Most people experience regret about a decision at some point in their lives, and experiencing regret about having children is not as rare as societal narratives might suggest. In the United Kingdom, for example, 8% of parents experience parenthood regret "to some extent" (YouGov, 2021). This percentage is even higher in Poland (14%; Piotrowski, 2021) and Germany (20%; YouGov, 2017). Overall, younger, single parents, those facing financial or mental health challenges, and parents of children with special needs are more likely to regret having children (Piotrowski, 2021; YouGov, 2021). Despite its prevalence, parenthood regret remains a societally and culturally taboo topic, often surrounded by stigma and silence, which are factors that discourage open dialogue, hinder policy recognition, and limit research into the causes and potential interventions for parenthood regret (Bodin & Fängström, 2025).

Parenthood regret can have profound, detrimental effects not only on the parents themselves but also on the overall functioning of the family and the development of children (Roskam et al., 2025). Parents who regret having children often experience ambivalence or a sense of incongruence between their authentic feelings and the socially prescribed emotions expected of them in the parental role; this internal conflict frequently gives rise to feelings of shame, guilt, anxiety, and embarrassment (Moore & Abetz, 2019). Empirical studies have additionally linked parenthood regret to reduced life satisfaction and poorer health conditions, as well as elevated

levels of parental burnout and depressive symptoms, all of which may further disrupt family functioning and child development (Piotrowski, 2021; Piotrowski et al., 2023, 2025). In light of these potentially far-reaching effects, researchers (Piotrowski et al., 2023, 2024) have called for greater scientific attention to be paid to parenthood regret. We aimed to advance this emerging field by identifying factors that may help mitigate parenthood regret over time. To situate our investigation in a context rich with emotional salience, we focused on the Christmas season, a period often marked by both joy and sorrow, thereby offering opportunities for reflection on partnership and parenting.

Parenting Joy and Perceived Partner Responsiveness During the Christmas Season

Christmas holds deep emotional and symbolic significance for many families, particularly in Christian-majority countries such as the United Kingdom (Miller, 2017). The season is imbued with traditions and rituals, such as sharing festive meals, singing carols, and decorating Christmas trees, activities that foster family togetherness and cultural continuity (e.g., Páez et al., 2011). From a positive psychology perspective, parenthood can be a profound source of joy, as it provides meaning and purpose, fulfills psychological needs, evokes positive emotions, and enriches social identity (Novick, 2023). Christmas traditions, in particular, create opportunities for joyful parent–child interactions. Activities such as reading festive stories, baking cookies, or witnessing a child's delight when unwrapping a gift can evoke a deep sense of fulfillment and connection. These emotionally rich interactions help affirm parents' identities and highlight the meaningful aspects of family life (Musick et al., 2016). However, this idealized version often contrasts with the lived realities of many parents. Christmas can be emotionally demanding and psychologically taxing, as it is frequently accompanied by elevated stress, family tension, financial strain, health issues, excessive drinking, and even feelings of loneliness (Schneider et al., 2023; Syrek et al., 2018).

Moreover, the weeks leading up to Christmas are often saturated with time pressure, social obligations, and unrealistic expectations (Miyazaki, 1993). Thus, for many parents, the desire to create a "magical" holiday for their children can become an emotionally draining pursuit, leaving little space for genuine joy or connection.

In such emotionally charged contexts, it becomes crucial to have a responsive partner. Perceived partner responsiveness is defined as the perception that one is understood, validated, and cared for by an interaction partner (Reis et al., 2004). Accordingly, feeling understood refers to the extent to which individuals perceive that their partner accurately grasps their inner world, including their beliefs, goals, history, emotions, and self-perceptions. Feeling validated reflects perceptions that one's partner genuinely values, appreciates, and affirms their core self, conveying that they are loved for who they are. Feeling cared for pertains to one's perception of the degree to which a partner expresses sincere concern for one's well-being through words, actions, and emotional responsiveness (Reis et al., 2004; Reis & Clark, 2013). Extensive research has demonstrated that perceived partner responsiveness is a powerful predictor of satisfaction and intimacy in relationships, well-being, positive emotions, and physical health (e.g., Arican-Dinc & Gable, 2023; Itzchakov et al., 2022). Indeed, it has been proposed as an organizing concept in relationship and well-being research, as it integrates key elements of many fundamental relational constructs, provides essential validation of the self, and fosters feelings of warmth, acceptance, belonging, and trust (Reis, 2012).

Parenting Joy and Parenthood Regret as Proximal and Distal Consequences of Perceived Partner Responsiveness

Research has suggested that the "downstream consequences" (Reis et al., 2022) of perceived partner responsiveness unfold across both proximal and distal levels of psychological

functioning (Merolla et al., 2024; Reis, 2001). Accordingly, proximal consequences refer to immediate emotional or psychological responses (e.g., changes in positive or negative emotions) that emerge in the context of supportive partner interactions, whereas distal consequences emerge from accumulations of interactive moments (e.g., longer-term shifts in individual well-being, mental health, and relational satisfaction). Building on this assumption, we positioned momentary parenting joy as a proximal consequence in this study, representing a momentary experience shaped by feeling understood, validated, and cared for by one's partner in everyday interactions. In comparison, we incorporated parenthood regret as a distal consequence that represents a painful evaluation of one's parenting identity and decisions. Such an evaluation may develop over time as a function of cumulative emotional experiences and relational dynamics.

In the parenting domain, perceived partner responsiveness has been linked to reduced parenting-related stress (Ter Kuile et al., 2017) and positive developmental outcomes in children (Bierstetel et al., 2023). Particularly during emotionally demanding periods, such as the Christmas season, the presence of a responsive partner may function as an emotional anchor, providing validation, reassurance, and a shared sense of connection. Importantly, partner responsiveness does more than mitigate negative affect; it may also amplify the capacity to savor joyful parenting moments, which reinforce parents' emotional engagement with their children and facilitate a deeper sense of meaning in family life. These momentary experiences of joy and responsiveness may accumulate to shape how parents make sense of their parenting role over time. When parents regularly experience moments of joy in their interactions with their children, coupled with consistent support from a responsive partner, they are more likely to construct a positive and coherent narrative of their parenting journey. This narrative can serve as a mechanism that buffers against parenthood regret, an emotion often rooted in ambivalent emotions, unmet expectations,

perceived failures, disbelief, or identity-related dissatisfaction (Donath, 2015; Piotrowski et al., 2025).

Disentangling Between- and Within-Person Effects and Real-Time Assessments

In psychological research, disentangling between- and within-person effects has gained increasing importance, as each level offers distinct theoretical insights and practical implications. Whereas between-person evidence helps researchers and practitioners understand how individuals differ from one another, within-person results offer information about how individuals differ from themselves across time (Hamaker, 2012; Hopwood et al., 2025). The former is particularly useful, for example, for identifying risk and resilience factors and for guiding the selection of appropriate intervention strategies. The latter allows researchers and practitioners to understand within-person changes and to tailor treatment approaches to the individual's evolving needs and circumstances.

Although family life is dynamic in that personal interactions, conflicts, emotions, and perceptions can vary from one situation to the next, existing research on family life rarely reflects these dynamic changes. Empirical work in this area often utilizes assessments of trait-like tendencies and retrospective self-reports, which fail to capture the state-level fluctuations that occur in daily family life. Retrospective self-reports are especially prone to memory biases, as individuals tend to report what they believe they regularly experience as opposed to reporting on their accurate in-the-moment experiences (Gloster et al., 2017; Goetz et al., 2013). By contrast, the experience sampling method (ESM; for an overview of the method, see, e.g., Zirkel et al., 2015) offers the opportunity to examine participants' real-time experiences, which are only minimally affected by recall biases. As such, we assessed parenting joy and perceived partner responsiveness in real time at short, repeated intervals, multiple times a day across a 35-day period.

Moreover, we measured the longer-term changes in parenthood regret with surveys administered before and after the experience sampling phase.

In analyzing the experience sampling data, we utilized dynamic structural equation modeling (DSEM; Hamaker et al., 2018; McNeish & Hamaker, 2020), a cutting-edge approach for separating processes that occur within individuals from those that vary between individuals. By integrating elements of structural equation modeling (SEM), time-series methods, and multilevel modeling, DSEM enables researchers to capture complex dynamics. The SEM component allows observed measures to be partitioned into transient, situational fluctuations (within-person variance) and stable, trait-like tendencies (between-person variance). Similar to time-series models, DSEM incorporates lagged outcomes and time-dependent predictors, whereas the multilevel aspect makes it possible to estimate how these dynamic effects differ across individuals. This combination makes DSEM particularly well-suited for studying state-like, short-term variations in parenting experiences and how they accumulate into longer-term outcomes such as parenthood regret.(Hamaker et al., 2018; McNeish & Hamaker, 2020)

Research Questions and Hypotheses

Adopting a positive psychology perspective, this study aims to examine the predictive association between momentary parenting joy and the momentary perception of partner responsiveness during the Christmas season and whether accumulations of these experiences buffer against the longer-term development of parenthood regret. To address these questions, we implemented a 35-day intensive longitudinal design using ESM to capture real-time variations in parenting joy and perceived partner responsiveness. Longer-term changes in parenthood regret were assessed with baseline and follow-up surveys administered before and after the experience sampling period. On the basis of this approach and the rationale outlined above, we formulated

two hypotheses. At the within-person level, momentary fluctuations in perceived partner responsiveness positively predict momentary fluctuations in parenting joy (Hypothesis 1). At the between-person level, person mean levels of parenting joy and perceived partner responsiveness across the experience sampling period moderate the changes in parenthood regret from baseline to follow-up, such that higher levels of these constructs attenuate increases in regret over time (Hypothesis 2).

Method

Preregistration and Open Science Statement

This study was part of a larger, preregistered project investigating parental experiences during the Christmas season. The preregistration protocol is publicly available at https://osf.io/4xga6/?view_only=136f8723227148ed84e9f2c8f02eafe6. Whereas the overall study design was preregistered, specific hypotheses related to the current study were not included in the preregistration, and this study was therefore exploratory in nature. The data set and codes related to this study are available at https://osf.io/ad647/?view_only=e39b0fc4f8a24bf1a317e51c20039251. Ethical approval for the project was obtained from [blinded for peer review]. All participants provided written informed consent, and participation was entirely voluntary.

Participants and Procedure

In November 2023, a total of 380 U.K. parents with at least one child under the age of 10 were invited to participate via the *Prolific* platform. The study ran from November 2023 to January 2024 and consisted of three phases: a baseline survey (November 17), a 35-day experience sampling period (November 30 – January 3), and a follow-up survey (January 15), covering the pre-Christmas, Christmas, and post-Christmas periods. During the experience sampling period,

participants received three random prompts per day between 08:00 and 20:00 via the *MindSampler* app (for procedural details, see Teuber et al., 2025). Participants were excluded from the final data analytic sample if they had missing data on all key study variables across all three periods. Additional exclusion criteria included not residing with any children or being a single parent without a co-parenting partner, as the study focused on partner-related dynamics. For incentives, participants needed to respond to at least two prompts per day for 15 days during the experience sampling phase. A total of 27 participants (10%) did not fulfill this requirement.

After data cleaning, the final sample consisted of 269 participants (168 identified as mothers and 101 as fathers) with a mean age of 38.26 years (SD = 6.95). All participants were treated as representing distinct family units. The median annual household net income fell within the range of £50,000–£59,999, which is higher than the U.K. national median of £34,500 reported for 2023 (Office for National Statistics, 2024). On average, participants reported 1.86 children per household (SD = 0.81). The mean age of their youngest child in the household was 5.25 years (SD = 3.53). Additionally, 50 parents (18.59%) indicated that at least one of their children had special educational needs, such as ADHD and learning disabilities.

Measures

Momentary Perceived Partner Responsiveness

To measure momentary perceived partner responsiveness, we adapted the Perceived Partner Responsiveness Scale (Gable et al., 2012), originally developed for retrospective use in daily diary studies. In this study, three items were modified to capture participants' real-time experiences: "Currently my partner understands me," "… makes me feel like they value my abilities and opinions," and "… makes me feel cared for" (1 = *strongly disagree*, 7 = *strongly agree*). The average individual mean was M_i = 5.28 (SD = 1.66). The intraclass correlation

coefficient (ICC) indicated that 76.6% of the total variance was attributed to between-person variance. The within-person reliability was $\alpha = .89$, and the between-person reliability was $\alpha = .99$, estimated as specified by Nezlek (2017). Additional methodological details can be found in McNeish's (2025) preprint.

Momentary Parenting Joy

Momentary parenting joy was assessed with a single self-constructed item: "How much are you currently enjoying parenting?" rated on a 7-point Likert-type scale (1 = *not at all*, 7 = *extremely*). The average individual mean was $M_i = 5.47$ ($SD = 1.32$). The ICC showed that 62.3% of the total variance could be attributed to between-person variance. Using the measurement error autoregressive method for single-item assessments (Schuurman & Hamaker, 2019), the within-person reliability was estimated to be .52, whereas the between-person reliability was .99.

Parenthood Regret

Parenthood regret was assessed at baseline and follow-up with the 12-item Parenthood Regret Scale by Piotrowski et al. (2023). Sample items included statements such as "I should have prevented myself from having a child while it was still possible." Participants rated each item on a 7-point Likert-type scale (1 = *strongly disagree*, 7 = *strongly agree*). The scale demonstrated excellent internal consistency at both baseline ($\omega = .97$) and follow-up ($\omega = .98$). Confirmatory factor analyses supported its unidimensional structure at both time points and indicated partial scalar longitudinal invariance over time (see Supplementary Material A).

Sociodemographic Variables

Sociodemographic variables were measured at baseline and included participants' gender, age, socioeconomic status, and the presence of special educational needs in their children. Gender was dummy-coded (1 = *female*, 0 = *male*). Socioeconomic status was estimated on the basis of

participants' total annual net household income (1 = *less than £10,000*, 13 = *more than £150,000*). Finally, the presence of special needs was determined by asking parents whether any of their children had special educational needs (1 = *yes*, 0 = *no*).

Data Analysis

To test our hypotheses, we applied DSEM (Hamaker et al., 2018; McNeish & Hamaker, 2020) using M*plus* 8.11 (Muthén & Muthén, 1998–2025). The first hypothesis concerned within-person associations between two variables, which is straightforward to assess with a vector autoregressive model within the DSEM framework. The second hypothesis concerned moderating effects involving person means. This analysis is conceptually straightforward but presents some computational challenges and is not directly supported in the most recent version of the M*plus* software (Version 8.11). Specifically, moderating effects in DSEM can be tested by allowing two predictors to interact with each other, similar to standard regression modeling (Cohen et al., 2003). However, a complication with moderating effects in DSEM is that the model uses latent centering to avoid Nickell's bias (Nickell, 1981) and Luedtke's bias (Lüdtke et al., 2008), which can arise in multilevel time-series data (Asparouhov & Muthén, 2019). Thus, the person means are latent variables, so testing for moderating effects involving a person mean in DSEM results in a latent interaction (Holtmann & Koslowski, 2025), which is far more difficult to estimate because latent variables are not observed directly (Maslowsky et al., 2015). To work around this issue, we relied on plausible values (Mislevy, 1991), an approach that has been recommended as a Bayesian solution for latent interactions in the related area of multilevel SEM (Asparouhov & Muthén, 2021; Zyphur et al., 2019). An analysis with plausible values is essentially multiple imputation where the unobserved latent variable is treated as if it were an observed variable with 100% missing data (Enders, 2025).

The analysis comprised two steps. The first step consisted of only a latent decomposition, which split the observed variables into within-person and between-person latent variables, which is standard procedure for all DSEM models (Hamaker et al., 2021). After the latent decomposition, each latent variable had a conditional posterior distribution from which 100 plausible values were drawn for each observation (Jewsbury et al., 2025). This process resulted in 100 different data sets, each with different possible values of the within-person and between-person latent variables for each observation (i.e., each person's latent variable values were imputed 100 times). The second step fit the model to all 100 data sets and used multiple imputation pooling rules to preserve uncertainty in the parameter estimates (e.g., Enders, 2022; Rubin, 1987). The benefit was that—within each analysis—the plausible values were treated as observed variables, so it was straightforward to create a product term to test for moderating effects rather than requiring a latent interaction. Pooling across 100 sets of plausible values incorporates uncertainty in the plausible values and is computationally expedient relative to the high-dimensional integration required with alternative approaches (Zyphur et al., 2019).

Figure 1 depicts the conceptual DSEM model. The upper left panel of Figure 1 shows the latent decomposition where the observed variables for parenting joy and perceived partner responsiveness (represented by rectangles) were disaggregated into a within-person component (denoted with a *w* superscript) and a between-person component (denoted with a *b* superscript). Each of these components is a latent variable, which is denoted by a circle. Because moderating effects were a key interest, plausible values were drawn for each latent variable, which were represented by placing a tilde over the variable name. The plausible values were treated as observed in the model, and their uncertainty was preserved by pooling them across 100 different draws from the conditional posterior of the latent variable.

The within-person model is shown in the lower left panel of Figure 1. The model has two outcomes, the plausible value for parenting joy and the plausible value for perceived partner responsiveness. Each variable is autoregressed on itself at the previous timepoint (captured by ϕ_{1i} and ϕ_{2i}) and is predicted by the cross-lag of the other variable (captured by ϕ_{3i} and ϕ_{4i}). All autoregressions and cross-lags are modeled as person-specific via random effects, which means that the magnitude of the coefficient is modeled as a distribution rather than as a single fixed value to allow for between-person heterogeneity in these effects. This is denoted in Figure 1 by placing a circle over the path. The residual variances are also modeled as person-specific, meaning that the volatility or reactivity of the time series is heterogeneous across individuals.

The right panel of Figure 1 shows the between-person model. The upper portion of the right panel shows the fixed effects for the plausible values of the person means, the residual variances, and the within-person coefficients. The ψ terms capture the between-person heterogeneity in these quantities. The residual variances are preceded by "ln" to indicate that the natural log was applied, which indicates a log-linear model to ensure that the variances were larger than 0. The bottom portion of the between-person model shows the structural model. Parenthood regret at follow-up was the primary outcome, which was predicted by the plausible value for the person mean of parenting joy, the plausible value for the person mean of perceived partner responsiveness, and baseline parenthood regret. Two-way interactions were also formed between baseline parenthood regret and the person means. These interactions were the sole motivation for using plausible values; without plausible values, it would not be possible to create an interaction between a latent variable and an observed variable in DSEM in M*plus* (as of Version 8.11). Demographic variables were also included as predictors of the person means and parenthood regret at follow-up.

The model was estimated using Markov Chain Monte Carlo (MCMC) via a Gibbs sampler in M*plus* Version 8.11. Diffuse priors were used for all parameters given that the number of individuals was rather large for a DSEM analysis, so priors should have had minimal influence on the posterior distributions, and primacy was given to information in the data (McNeish, 2019). The model was applied to 100 data sets, each with a unique set of plausible values for each observation. Each data set used two MCMC chains with 2,000 iterations and a thinning of 5, resulting in 10,000 iterations per data set or 1,000,000 total iterations when pooled across all sets of plausible values. The potential scale reduction factor was used to assess convergence; the PSR was below 1.01 for all parameters, which was well below the typically recommended 1.10 threshold (where values closer to 1 are better; Brooks & Gelman, 1998). Posterior distributions were summarized with the median to provide a point estimate for each parameter. Parameters with a 95% credible interval (CI) that did not include 0 were considered to provide evidence that the population effect was non-null.

Results

Participants provided an average of 49.25 repeated measures (*SD* = 23.01) during the experience sampling period, yielding a total of 13,249 observations across 269 participants. Table 1 presents descriptive statistics and correlations between the variables of interest after latent decomposition in M*plus*.

Within-Person Associations Between Parenting Joy and Perceived Partner Responsiveness

We examined autoregressive and cross-lagged effects of parenting joy and perceived partner responsiveness at the within-person level in DSEM. We found non-null autoregressive effects for both constructs. Across the sample, the average autoregressive coefficient for parenting joy was *B* = .289 [.255, .322], and for momentary perceived partner responsiveness, *B* = .370

[.333, .409]. These results indicated that individuals were likely to report elevated levels of parenting joy or perceived partner responsiveness at a given moment if they had experienced elevated levels of the same construct at an earlier moment, relative to their own average.

With regard to our first hypothesis, a positive cross-lagged effect was observed from perceived partner responsiveness to parenting joy (B = .030 [.012, .051]) but not in the other direction from parenting joy to perceived partner responsiveness (B = .013 [–.003, .051]). That is, when a participant reported a higher level of perceived partner responsiveness in one moment, they experienced greater parenting joy in the subsequent moment. However, momentary fluctuations in parenting joy did not predict fluctuations in later perceptions of partner responsiveness (although 0 was barely inside the credible interval). The within-person R^2 was 19% for parenting joy and 11% for perceived partner responsiveness.

Between-Person Associations Between Parenting Joy, Partner Responsiveness, and Parenthood Regret

At the between-person level of DSEM, we investigated how the person means of parenting joy and perceived partner responsiveness, captured during the experience sampling period, were related to parenthood regret assessed at both baseline and follow-up, while accounting for relevant sociodemographic covariates. One consideration in the between-person model was that the raw values of parenthood regret at follow-up had a notable positive skew such that most responses were toward the lower end of the scale. However, an underlying assumption of DSEM is that the *residuals* are normal, not the outcome variable itself. We initially fit a model treating parenthood regret at follow-up as continuous to inspect whether the residuals were reasonably normal. QQ plots and histograms suggested that the residuals may deviate mildly from normality (plots are provided in Supplementary Material B), exhibiting some excess kurtosis but almost no skewness

(sign test = –4.5, p = .63). Nonetheless, inferential tests such as the Kolmogorov-Smirnov test (D = .077, p = .08) and the Cramer-von Mises test (ω^2 = 0.21, p = .25) provided some evidence that the residuals were approximately normal, although the Anderson-Darling test did not support the normality of the residuals (A^2 = 16.70, p < .01). Additional diagnostic tests suggested that the residual distribution had heavier tails. An Anderson-Darling test for whether the residuals followed a t distribution with 4 degrees of freedom was not significant (A^2 = 2.10, p = .08), and neither were the Cramer-von Mises test (ω^2 = 0.11, p = .54) or the Kolmogorov-Smirnov test (D = .050, p = .51). In general, there seemed to be reasonable evidence to support treating parenthood regret at follow-up as continuous rather than adopting alternative approaches that might complicate the interpretation, such as probit models, hurdle models, or log transformations. The results indicated that participants with higher parenthood regret at baseline tended to have higher parenthood regret at follow-up (B = 1.176 [0.924, 1.433]) and that participants with higher person means in parenting joy tended to have lower parenthood regret at follow-up (B = –.135 [–.206, –.065]). However, there was a non-null moderating effect whereby higher person means in parenting joy dampened the effect of baseline parenthood regret (B = –.125 [–.201, –.051]). Therefore, the 1.176 effect reported above was conditional on the person mean of parenting joy being equal to 0.

Figure 2 probes the moderating effect to show how the effect of parenthood regret at baseline changed as a function of the person means of parenting joy. The vertical axis shows the effect of parenthood regret at baseline, and the horizontal axis shows the person mean of parenting joy. The black line represents the effect of baseline parenthood regret on follow-up parenthood regret, and the grey lines represent the 95% CI. For low values of parenting joy, the effect of baseline parenthood regret on follow-up parenthood regret was much stronger (slightly above 1). However, for the parenting joy person means that were near the top of the scale range (i.e., 6.65

and above; about 17% of the sample), the effect of baseline parenthood regret dissipated and became indistinguishable from 0. The person means of perceived partner responsiveness did not seem to be related to parenthood regret at follow-up (B = –.032 [–.077, 0.012]) nor did they appear to moderate the effect of parenthood regret at baseline (B = .018 [–.025, .062]). All covariates for parenthood regret at follow-up were plausibly null such that 0 was firmly within the 95% CI. Overall, the model explained 76% of the between-person variance in parenthood regret at follow-up. A few covariates were plausibly non-null in predicting the person means. Having a child with special needs was associated with lower person means in parenting joy (B = –.333 [–.662, –.000]), and mothers reported lower person means in perceived partner responsiveness than fathers did (B = –.569 [–.938, –.205]). Older participants also showed borderline evidence of having slightly lower person means in perceived partner responsiveness, as 0 was barely within the credible interval (B = –.022 [–.048, .004]).

Discussion

In this study, we used the DSEM framework to examine how fluctuations in perceived partner responsiveness were associated with fluctuations in parenting joy across the Christmas season and how these experiences were related to the longer-term development of parenthood regret. The results provide novel insights into the emotional ecology of parenting, revealing both short-term within-person dynamics and longer-term between-person associations that are relevant for understanding parenthood regret.

Perceived Partner Responsiveness as a Momentary Resource for Parenting Joy

In line with our first hypothesis, increases in perceptions of partner responsiveness at one moment predicted increases in parenting joy at the subsequent moment but not the other way around at the within-person level. This observed unidirectional effect suggests that, whereas

responsive interactions within the couple are emotionally enriching for parenting, joyful parenting moments do not necessarily spill over to enhance perceived partner responsiveness. This pattern can be interpreted in at least two ways. First, experiencing elevated parenting joy may temporarily reduce the additional need for partner responsiveness. Partner responsiveness often serves key emotional and relational functions, such as promoting closeness and intimacy, fulfilling attachment needs, and supporting a partner's goals and well-being (Reis, 2012). When parents feel more competent, connected, and fulfilled in their parenting role than they usually do, their emotional and relational needs may be sufficiently met through the parenting experience itself. As a result, the activation of additional support-seeking motives and thus the perception of partner responsiveness may be reduced in these moments.

Second, this unidirectional pattern may reflect differences in the psychological and interpersonal functions of the two constructs. Perceived partner responsiveness in our study was relational, as it involved a parent's perception that their partner understands, validates, and cares for their inner states (Reis et al., 2004), and it plays an important role in emotion regulation and well-being across relational and individual domains (e.g., Feeney & Collins, 2015). In this sense, responsiveness may act as a cross-domain emotional resource, fostering a secure emotional climate in the family that facilitates parental attunement and amplifies the emotional rewards of caregiving. In other words, when parents feel supported by their partner, they may be more emotionally available and present with their children, thereby enhancing the potential for joyful parenting experiences even in emotionally charged periods. In comparison, parenting joy may be more specific to the experience of parenting, as it is often grounded in momentary experiences of connection, progress, or meaning in the parent-child relationship (e.g., Leerkes & Augustine, 2019). Such experiences may enhance personal well-being and parental self-efficacy (Salo et al.,

2022) but do not necessarily involve the partner. Unless such joyful experiences are explicitly shared or co-constructed within the couple (e.g., through mutual reflection or co-parenting activities), they may not feed back into perceptions of partner responsiveness.

The Role of Parenting Joy and Partner Responsiveness in Parenthood Regret

Our second hypothesis addressed the moderating effects of person means of parenting joy and perceived partner responsiveness on parenthood regret. This hypothesis was partially supported: Individuals with higher means in parenting joy, but not perceived partner responsiveness, reported lower parenthood regret at follow-up at the between-person level. Moreover, person means of parenting joy moderated the development of parenthood regret from baseline to follow-up, suggesting that experiencing greater parenting joy may buffer against the development of parenthood regret across a longer period of time. Parenthood regret, though less frequently studied than other forms of parenting-related negative experiences (Roskam et al., 2025), represents a particularly poignant form of distress, often involving a global and retrospective negative appraisal of one's decision to become a parent or of the parenting role itself (Piotrowski, 2021). Although person means of perceived partner responsiveness were not associated with parenthood regret at follow-up at the between-person level, within-person results showed that momentary fluctuations in partner responsiveness did positively predict corresponding fluctuations in parenting joy. This pattern points to the significance of momentary emotional and relational dynamics in shaping parents' experiences, and, over time, their evaluations related to the parenting role. Such results highlight the dynamic and temporally extended nature of parenting experiences, where affective and relational states may crystallize into more stable perceptions of parenting (dis)satisfaction and identification. They also suggest a mechanism whereby parenting joy, fostered by feeling understood and supported by a partner, may

gradually buffer against the emergence or persistence of regret. This result aligns with Fredrickson's (2004) broaden-and-build theory, which suggests that positive emotions might not only serve an immediate hedonic function but may also contribute to the accumulation of psychological and relational resources over time. In the context of parenting, such resources may include emotional resilience, adaptive parenting practices, as well as strengthened partnerships and parent–child relationships, all of which may serve to mitigate the longer-term development of parenthood regret. This perspective is also consistent with Reis's (2001) proposition that distal "downstream consequences" of partner responsiveness emerge from the accumulation of moments of supportive social interactions.

Regarding the influence of sociodemographic factors on parenthood regret, previous studies have linked parents' younger ages, greater financial strain, and the presence of special needs in children to increased levels of parenthood regret (Piotrowski, 2021; YouGov, 2021). In our study, however, only the presence of special needs in children (among the variables of parental gender, age, socioeconomic status, and special needs in children) emerged as a meaningful predictor of parenthood regret at baseline. This association did not hold over time though: After accounting for baseline levels of parenthood regret, the presence of special needs did not predict parenthood regret at follow-up. However, higher parental age and being a mother were associated with lower person means in perceived partner responsiveness, whereas parents of children with special needs experienced lower levels of parenting joy across the Christmas season. These results suggest that sociodemographic variables may exert their influence indirectly, shaping the quality of the parenting experience rather than regret itself. Overall, it is encouraging that parental gender, age, and socioeconomic status did not, in and of themselves, increase the extent to which parents experienced parenthood regret. This finding challenges deficit-based assumptions often associated

with these demographic groups and suggests that parenthood regret is not rooted in sociodemographic disadvantage. Yet, the elevated levels of parenthood regret observed at baseline among parents of children with special needs stress the acute emotional and practical challenges these families face. Although these difficulties might not result in a sustained increase in parenthood regret over time, the initial vulnerability remains substantial. This trend points to an important window of opportunity for early intervention. There is a need for tailored, sustained support systems that address the specific emotional, logistical, and relational demands experienced by caregivers of children with special needs. Such interventions are essential not only for reducing immediate distress but also for preventing the entrenchment of negative self-evaluations related to the parenting role.

Practical Implications

The results of this study have important practical implications. Partner responsiveness may serve as an affective scaffold for parenting joy in everyday life. Experiencing parenting joy may additionally function as a psychological buffer against parenthood regret for a longer time period. These results suggest that parents, particularly those struggling with their parenting role, may benefit from a partner's understanding, validation, and genuine care. Practitioners in family consultation and therapy can support parents and families by helping couples develop practical strategies that increase their emotional awareness, attunement to cues for connection and support needs, and the ability to show empathy and engage in warm and constructive communication. Strengthening these relational and emotional skills enables parents to create a secure family climate characterized by mutual understanding and shared coping. Such a climate not only amplifies the experience of parenting joy but also serves as a protective factor against negative appraisals of the parenting role. Regret is a common and deeply human emotion, even in the

context of parenting (Piotrowski et al., 2023, 2024). However, discussions of parenthood regret remain largely taboo, often silenced by social norms that idealize parenting as exclusively a joyful experience. We call for greater media, political, and scientific attention to be paid to parenthood regret. Creating space for parents to voice their experiences and reflect on their evolving parental identity can foster a more compassionate and flexible appraisal of parenting challenges. Rather than reinforcing self-critical or fatalistic interpretations, such open dialogue can normalize ambivalence, reduce isolation, and build emotional resilience.

Limitations and Future Directions

Several limitations warrant consideration and point to future research directions. First, this study was conducted during the Christmas season, which may limit the generalizability of the findings to more general or less intense parenting contexts throughout the year. Second, the sample was relatively small and geographically restricted to U.K. parents, which may further constrain the extent to which the results generalize to more diverse populations. Third, parenthood regret is a socially sensitive and potentially taboo topic. The reliance on self-report measures may be susceptible to social desirability bias, particularly in the context of normative beliefs about the parenting role. Future studies may consider including a social desirability scale specific to parenting to statistically account for this influence or implement indirect or implicit assessment methods to reduce such bias. Future studies should also move beyond examining global levels of parenthood regret and instead differentiate between its cognitive and emotional components. In the broader literature on regret, as well as in recent work on parenthood regret specifically (Piotrowski et al., 2023), scholars have emphasized that regret entails both the evaluative judgment that one's past decision was a mistake and the emotional experience of sorrow, anger, or self-blame that accompanies this judgment. It remains an open question whether protective factors such

as parenting joy and partner responsiveness exert distinct effects on these components. For instance, parenting joy may primarily buffer against the emotional intensity of regret by fostering positive affect and meaning-making in the parental role, whereas partner responsiveness may reduce the cognitive reconsideration of the decision to become a parent by reinforcing the perception of shared commitment and relational security. Clarifying these potentially divergent pathways would not only refine the theoretical model of parenthood regret but also inform more targeted interventions aimed at supporting parents who struggle with doubts and ambivalent feelings. Last but not least, we used DSEM as a powerful framework to disentangle between- and within-person components. Missing prompts were treated as missing at random in our model. More methodological efforts are needed to understand the mechanisms underlying missing values in intensive longitudinal data to ensure the robustness of parameter estimates.

Conclusion

In the present study, we employed state-of-the-art methodologies to capture parenting joy and perceived partner responsiveness in parents' natural environment during the Christmas season. By examining dynamic within-person associations, we revealed a unidirectional spillover effect from perceived partner responsiveness to parenting joy, highlighting the emotion-enhancing role of partner responsiveness. In addition, parenting joy emerged as a protective factor that dampened the longer-term development of parenthood regret at the between-person level. Practically, the identified moderating effect suggests that even small, everyday adjustments in family interactions can meaningfully shape parental identity. Taken together, these findings advance our understanding of resilience factors that buffer against parenthood regret and point to actionable strategies for strengthening family well-being.

References

Arican-Dinc, B., & Gable, S. L. (2023). Responsiveness in romantic partners' interactions. *Current Opinion in Psychology*, *53*, 101652. https://doi.org/10.1016/j.copsyc.2023.101652

Asparouhov, T., & Muthén, B. (2019). Latent variable centering of predictors and mediators in multilevel and time-series models. *Structural Equation Modeling*, *26*(1), 119–142.

Asparouhov, T., & Muthén, B. (2021). Bayesian estimation of single and multilevel models with latent variable interactions. *Structural Equation Modeling*, *28*(2), 314–328.

Bierstetel, S. J., Farrell, A. K., Tobin, E. T., Kane, H. S., Imami, L., Zilioli, S., & Slatcher, R. B. (2023). Positive crossover: Parent perceived partner responsiveness and health of youth with asthma. *Personal Relationships*, *30*(2), 566–582. https://doi.org/10.1111/pere.12467

Bodin, M., & Fängström, K. (2025). Loneliness Among Parents in Sweden Who Regret Having Children. *Journal of Child and Family Studies*, *34*(1), 235–244. https://doi.org/10.1007/s10826-024-02988-8

Brooks, S. P., & Gelman, A. (1998). General methods for monitoring convergence of iterative simulations. *Journal of Computational and Graphical Statistics*, *7*(4), 434–455.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Routledge.

Donath, O. (2015). Regretting Motherhood: A Sociopolitical Analysis. *Signs*, *40*, 343–367. https://doi.org/10.1086/678145

Enders, C. K. (2022). *Applied missing data analysis* (2nd ed.). Guilford.

Enders, C. K. (2025). Missing data: An update on the state of the art. *Psychological Methods*, *30*(2), 322–339. https://doi.org/10.1037/met0000563

Feeney, B. C., & Collins, N. L. (2015). A New Look at Social Support: A Theoretical Perspective on Thriving Through Relationships. *Personality and Social Psychology Review*, *19*(2), 113–147. https://doi.org/10.1177/1088868314544222

Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *359*(1449), 1367–1378. https://doi.org/10.1098/rstb.2004.1512

Gloster, A. T., Miché, M., Wersebe, H., Mikoteit, T., Hoyer, J., Imboden, C., Bader, K., Meyer, A. H., Hatzinger, M., & Lieb, R. (2017). Daily fluctuation of emotions and memories thereof: Design and methods of an experience sampling study of major depression, social phobia, and controls. *International Journal of Methods in Psychiatric Research*, *26*(3), e1578. https://doi.org/10.1002/mpr.1578

Goetz, T., Bieg, M., Lüdtke, O., Pekrun, R., & Hall, N. C. (2013). Do girls really experience more anxiety in mathematics? *Psychological Science*, *24*(10), 2079–2087. https://doi.org/10.1177/0956797613486989

Hamaker, E. L. (2012). Why researchers should think "within-person": A paradigmatic rationale. In *Handbook of research methods for studying daily life* (pp. 43–61). The Guilford Press.

Hamaker, E. L., Asparouhov, T., Brose, A., Schmiedek, F., & Muthén, B. (2018). At the Frontiers of Modeling Intensive Longitudinal Data: Dynamic Structural Equation Models for the Affective Measurements from the COGITO Study. *Multivariate Behavioral Research*, *53*(6), 820–841. https://doi.org/10.1080/00273171.2018.1446819

Hamaker, E. L., Asparouhov, T., & Muthén, B. (2021). Dynamic structural equation modeling as a combination of time series modeling, multilevel modeling, and structural equation

modeling. In R. H. Hoyle (Ed.), *The handbook of structural equation modeling* (2nd ed., pp. 576–597). Guilford.

Holtmann, J., & Koslowski, K. (2025). Modeling within-level latent interaction effects in multilevel vector-autoregressive models. *Behavior Research Methods*, *57*(10), 277.

Hopwood, C. J., Aafjes-van Doorn, K., Békés, V., Luo, X., Ringwald, W. R., & Wright, A. G. C. (2025). Is psychological research producing the kind of knowledge clinicians find useful? *American Psychologist*. https://doi.org/10.1037/amp0001538

Itzchakov, G., Reis, H. T., & Weinstein, N. (2022). How to foster perceived partner responsiveness: High-quality listening is key. *Social and Personality Psychology Compass*, *16*(1), e12648. https://doi.org/10.1111/spc3.12648

Jewsbury, P. A., McCaffrey, D. F., Jia, Y., & Gonzalez, E. J. (2025). How many plausible values? *Journal of Educational Measurement*. https://doi.org/10.1111/jedm.70000

Leerkes, E. M., & Augustine, M. E. (2019). Parenting and Emotions. In *Handbook of Parenting* (3rd ed.). Routledge.

Lüdtke, O., Marsh, H. W., Robitzsch, A., Trautwein, U., Asparouhov, T., & Muthén, B. (2008). The multilevel latent covariate model: A new, more reliable approach to group-level effects in contextual studies. *Psychological Methods*, *13*(3), 203–229. https://doi.org/10.1037/a0012869

Maslowsky, J., Jager, J., & Hemken, D. (2015). Estimating and interpreting latent variable interactions: A tutorial for applying the latent moderated structural equations method. *International Journal of Behavioral Development*, *39*(1), 87–96.

McNeish, D. (2019). Two-level dynamic structural equation models with small samples. *Structural Equation Modeling*, *26*(6), 948–966.

McNeish, D. (2025). *Primer on Intensive Longitudinal Psychometrics.pdf*. https://osf.io/https://osf.io/dmpwc

McNeish, D., & Hamaker, E. L. (2020). A primer on two-level dynamic structural equation models for intensive longitudinal data in Mplus. *Psychological Methods*, *25*(5), 610–635. https://doi.org/10.1037/met0000250

Merolla, A. J., Neubauer, A. B., & Otmar, C. D. (2024). Responsiveness, Social Connection, Hope, and Life Satisfaction in Everyday Social Interaction: An Experience Sampling Study. *Journal of Happiness Studies*, *25*(1–2). https://doi.org/10.1007/s10902-024-00710-5

Miller, D. (2017). Christmas: An anthropological lens. *HAU: Journal of Ethnographic Theory*, *7*(3), 409–442. https://doi.org/10.14318/hau7.3.027

Mislevy, R. J. (1991). Randomization-based inference about latent variables from complex samples. *Psychometrika*, *56*(2), 177–196.

Miyazaki, A. D. (1993). How Many Shopping Days Until Christmas? A Preliminary Investigation of Time Pressures, Deadlines, and Planning Levels on Holiday Gift Purchases. *Advances in Consumer Research*, *20*(1).

Moore, J., & Abetz, J. S. (2019). What Do Parents Regret About Having Children? Communicating Regrets Online. *Journal of Family Issues*, *40*(3), 390–412. https://doi.org/10.1177/0192513X18811388

Musick, K., Meier, A., & Flood, S. (2016). How Parents Fare: Mothers' and Fathers' Subjective Well-Being in Time with Children. *American Sociological Review*, *81*(5), 1069–1095. https://doi.org/10.1177/0003122416663917

Muthén, L. K., & Muthén, B. O. (1998). *Mplus 8.11*. Muthén & Muthén.

Nezlek, J. B. (2017). A practical guide to understanding reliability in studies of within-person variability. *Journal of Research in Personality*, *69*, 149–155. https://doi.org/10.1016/j.jrp.2016.06.020

Nickell, S. (1981). Biases in dynamic models with fixed effects. *Econometrica : Journal of the Econometric Society*, *49*(6), 1417–1426.

Novick, R. M. (2023). Joy and Parenting: Partners or Paradox? In E. Brown & S. Weiss (Eds.), *An Ode to Joy: Judaism and Happiness in the Thought of Rabbi Lord Jonathan Sacks and Beyond* (pp. 355–365). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-28229-4_44

Office for National Statistics. (2024). *Average household income, UK - Office for National Statistics*. https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/bulletins/householddisposableincomeandinequality/financialyearending2023

Páez, D., Bilbao, M. Á., Bobowik, M., Campos, M., & Basabe, N. (2011). Merry Christmas and Happy New Year! The impact of Christmas rituals on subjective well-being and family's emotional climate. *International Journal of Social Psychology: Revista de Psicología Social*, *26*(3), 373–386. https://doi.org/10.1174/021347411797361347

Piotrowski, K. (2021). How many parents regret having children and how it is linked to their personality and health: Two studies with national samples in Poland. *PLOS ONE*, *16*(7), e0254163. https://doi.org/10.1371/journal.pone.0254163

Piotrowski, K., Mikolajczak, M., & Roskam, I. (2023). I should not have had a child: Development and validation of the Parenthood Regret Scale. *Journal of Family Psychology*, *37*(8), 1282–1293. https://doi.org/10.1037/fam0001158

Piotrowski, K., Mikolajczak, M., & Roskam, I. (2025). Longitudinal Links of Parenthood Regret and Parental Burnout at the Between-Person and Within-Person Levels. *Journal of Marriage and Family*, *n/a*. https://doi.org/10.1111/jomf.13127

Piotrowski, K., Naude, L., Sanna, K., Szramka-Pawlak, B., Kwarcińska, K., & Dzielińska, M. (2024). Perceptions of parenting among parents who regret having a child: A mixed-methods study. *Journal of Family Studies*, *30*(3), 461–484. https://doi.org/10.1080/13229400.2023.2241520

Reis, H. T. (2001). Relationship experiences and emotional well-being. *Emotion, Social Relationships, and Health*, 57–86.

Reis, H. T. (2012). Perceived partner responsiveness as an organizing theme for the study of relationships and well-being. In *Interdisciplinary research on close relationships: The case for integration* (pp. 27–52). American Psychological Association. https://doi.org/10.1037/13486-002

Reis, H. T., & Clark, M. S. (2013). *Responsiveness. Dalam JA Simpson & L. Campbell*. The Oxford handbook of close relationships (hlm. 400–423). Oxford University ….

Reis, H. T., Clark, M. S., & Holmes, J. G. (2004). Perceived Partner Responsiveness as an Organizing Construct in the Study of Intimacy and Closeness. In *Handbook of closeness and intimacy* (pp. 201–225). Lawrence Erlbaum Associates Publishers.

Reis, H. T., Itzchakov, G., Lee, K. Y., & Ruan, Y. (2022). Sociability matters: Downstream consequences of perceived partner responsiveness in social life. In *The psychology of*

sociability: Understanding human attachment (pp. 239–257). Routledge. https://doi.org/10.4324/9781003258582-17

Roskam, I., Mikolajczak, M., & Piotrowski, K. (2025). Unveiling the Uniqueness of Parental Burnout and Parenthood Regret: Impact on Parents and Children. *Clinical Psychological Science*, 21677026251347526. https://doi.org/10.1177/21677026251347526

Rubin, D. B. (1987). *Multiple imputation for nonresponse in surveys*. Wiley.

Salo, A.-E., Junttila, N., & Vauras, M. (2022). Parental Self-Efficacy and Intra- and Extra-Familial Relationships. *Journal of Child and Family Studies*, *31*(10), 2714–2729. https://doi.org/10.1007/s10826-022-02380-4

Schneider, E., Liwinski, T., Imfeld, L., Lang, U. E., & Brühl, A. B. (2023). Who is afraid of Christmas? The effect of Christmas and Easter holidays on psychiatric hospitalizations and emergencies—Systematic review and single center experience from 2012 to 2021. *Frontiers in Psychiatry*, *13*. https://doi.org/10.3389/fpsyt.2022.1049935

Schuurman, N. K., & Hamaker, E. L. (2019). Measurement error and person-specific reliability in multilevel autoregressive modeling. *Psychological Methods*, *24*(1), 70–91. https://doi.org/10.1037/met0000188

Syrek, C. J., Weigelt, O., Kühnel, J., & De Bloom, J. (2018). All I want for Christmas is recovery – changes in employee affective well-being before and after vacation. *Work & Stress*, *32*(4), 313–333. https://doi.org/10.1080/02678373.2018.1427816

Ter Kuile, H., Kluwer, E. S., Finkenauer, C., & Van Der Lippe, T. (2017). Predicting adaptation to parenthood: The role of responsiveness, gratitude, and trust. *Personal Relationships*, *24*(3), 663–682. https://doi.org/10.1111/pere.12202

Teuber, Z., Botes, E., Reiter, J., Greiff, S., Aunola, K., & McNeish, D. (2025). *Unwrapping the Dynamics of Parental Burnout and Genuine Expression During the Festive Season: A Dynamic Structural Equation Modeling Approach*. Research Square. https://doi.org/10.21203/rs.3.rs-7004466/v1

YouGov. (2017). *"Regretting Parenthood": Wenn Eltern ihre Kinder lieben—Das Kinderkriegen aber bereuen*. https://yougov.de/politics/articles/16036-regretting-parenthood-wenn-eltern-ihre-kinder-lieb

YouGov. (2021). *One in twelve parents say they regret having children*. https://yougov.co.uk/society/articles/36590-one-twelve-parents-say-they-regret-having-children

Zeelenberg, M. (1999). The use of crying over spilled milk: A note on the rationality and functionality of regret. *Philosophical Psychology*, *12*(3), 325–340. https://doi.org/10.1080/095150899105800

Zirkel, S., Garcia, J. A., & Murphy, M. C. (2015). Experience-sampling research methods and their potential for education research. *Educational Researcher*, *44*(1), 7–16. https://doi.org/10.3102/0013189X14566879

Zyphur, M. J., Zhang, Z., Preacher, K. J., & Bird, L. J. (2019). Moderated mediation in multilevel structural equation models: Decomposing effects of race on math achievement within versus between high schools in the United States. In S. E. Humphrey & J. M. LeBreton (Eds.), *The handbook of multilevel theory, measurement, and analysis* (pp. 473–494). American Psychological Association. https://doi.org/10.1037/0000115-021

Table 1

Means (M), Standard Deviations (SD), and Correlations of Variables of Interest After Latent Decomposition Using Mplus (TYPE = TWOLEVEL)

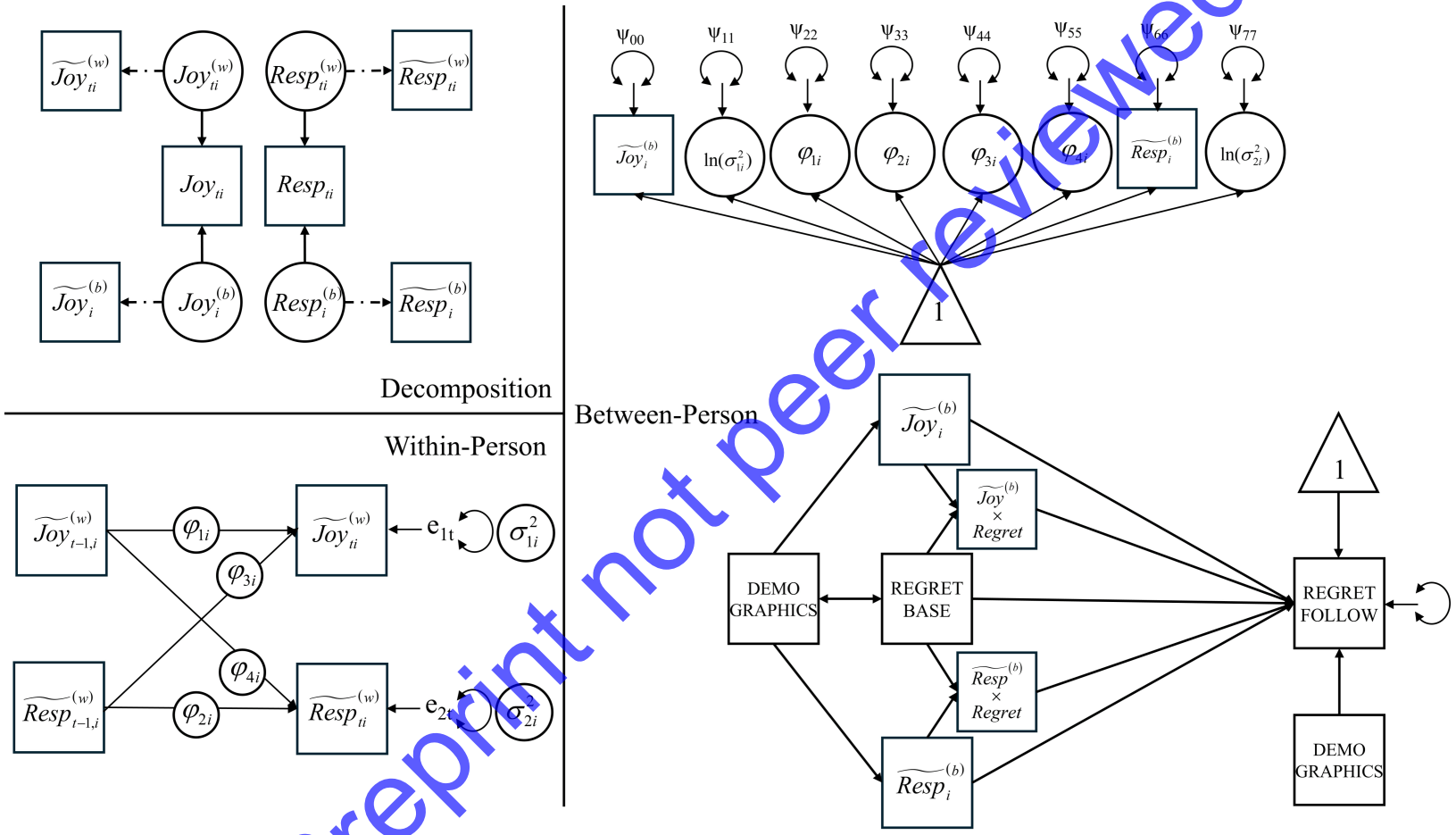
	Mean and *SD*		Correlations						
	Between	Within	Between						Within
Variable	*M* (*SD*)	*M* (*SD*)	1	2	3	4	5	6	6
1 Mother									
2 Needs			.04.						
3 Income	7.05 (2.59)		–.01	–.12					
4 Regret baseline	1.54 (1.06)		.03	.14*	–.05				
5 Regret follow-up	1.50 (.97)		.03	.10	–.04	.87***			
6 Joy ESM	5.44 (2.33)	0 (.81)	–.05	–.13	.02	–.48***	–.54***		
7 Responsiveness ESM	5.20 (2.28)	0 (.80)	–.17**	–.04	.01	–.25***	–.32***	.46***	.26***

Note. Needs = the presence of special needs in children. ESM = measured during the experience sampling period. Latent decomposition was performed only for the experience sampling measures.

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

Figure 1

Path Diagram of the Conceptual Model



Note. Resp = perceived partner responsiveness. [w]within-person. [b]between-person. BASE = baseline. FOLLOW = follow-up.

Figure 2

The Effect of Parenthood Regret at Baseline on Parenthood Regret at Follow-up as Moderated by the Person Mean of Parenting Joy