Positive and Negative Emotion in the Daily Life of Dual-Earner Couples With Children

Belinda Campos
University of California, Irvine

Tatyana Plaksina and Rena L. Repetti
University of California, Los Angeles

Elinor Ochs
University of California, Los Angeles

Shu-wen Wang
Haverford College

Dominik Schoebi
University of California, Los Angeles and University of Fribourg

Margaret E. Beck
University of Iowa

What is the emotional valence of family life and what factors contribute to this valence? Research indicates that most people are mildly happy but also that the years devoted to raising children are associated with diminished happiness and well-being, particularly for mothers. Public discourse is increasingly concerned that parenthood does not make us happy, but little empirical work has actually studied the emotional valence of family life. We addressed this gap in the literature with an intensive examination of the emotional valence of dual-earner family life. Specifically, we examined positive and negative emotional tone and expressivity throughout two weekday afternoons and evenings to test whether it was more positive or negative, explored gender differences in valence patterns, and qualitatively identified dinner food–related talk as a factor in mothers’ evening emotion valence. Our sample was 30 dual-earner couples with young children who took part in a naturalistic observation study that involved continuous videotaping from the time that mothers and fathers left work until family members went to bed. Analyses revealed the following: (a) mild positive emotion was generally characteristic of both mothers and fathers, (b) mothers were more emotionally expressive than fathers, but (c) only mothers’ positive emotion dropped during the evening period (5–8 p.m.) where the most salient feature of dinner was children’s vocal expressions of distaste for dinner food. The implications of these findings for understanding the concurrent rewards and strains of everyday family life are discussed.

Keywords: family life, positive/negative emotion, naturalistic observation, gender, dinner

Research indicates that the emotion baseline of most people is positive (Diener & Diener, 1996) and emotional positivity is more frequent than negativity (Diener, Sandvik, & Pavot, 1991; Rozin, Berman, & Royzman, 2010). At the same time, the years devoted to raising children appear to be associated with diminished personal happiness, marital satisfaction, and well-being, particularly for mothers (e.g., Dew & Wilcox, 2011; Gilbert, 2006; Gorchoff, John, & Helson, 2008). As public discourse is increasingly concerned that parenthood does not make us happy, little empirical work has actually studied the emotional valence of family life. To address this gap in the literature, we conducted an intensive study of family life that assessed emotional tone and expressivity in the daily lives of dual-earner couples with children to test whether it was more positive or negative, explore gender differences in valence patterns, and qualitatively identify factors that may contribute to changes in positive and negative emotion over the day. The latter goal led to a focus on family dinners, a time when families come together that is associated with positive child outcomes (e.g., Eisenberg, Olson, Neumark-Sztainer, Story, & Bearinger, 2004) but typically occurs at a time of day known to be stressful for mothers (Offer & Schneider, 2010). Our work capitalized on a unique naturalistic observation dataset that allowed us to behaviorally assess positive and negative emotion throughout two weekday afternoons and evenings and qualitatively analyze...
dinner talk. These novel data yielded findings that direct attention to the mild positivity of family life for both genders, but also identified dinner food-related talk as a new factor that may adversely affect mothers’ positive emotion in the evening.

Positive and Negative Emotion in Everyday Life

From lottery winners to recent sufferers of spinal cord injuries, people consistently report levels of personal happiness that are slightly above neutral (Brickman, Coates, & Janoff-Bulman, 1978; Diener & Diener, 1996; Diener, Gohm, Suh & Oishi, 2000; Lucas, Clark, Georgellis, & Diener, 2003; Sandvik, Diener, & Seidlitz, 1993; Silver, 1982). Social relationships appear to be a key factor in these positive assessments. Indeed, divorce and widowhood, two life experiences that index relationship dissolution and loss, are recognized to upset this balance and adversely affect life happiness (Holmes & Rahe, 1967; Lucas et al., 2003).

Parenthood, a life experience that ushers in a new relationship to one’s children, has been of interest because having children appears to have a negative impact on personal happiness (e.g., Dew & Wilcox, 2011; Gilbert, 2006; Lyubomirsky & Boehm, 2010). Much popular and scholarly attention has been devoted to this seemingly counterintuitive pattern. Two recent studies, however, point to some complexities in the parenthood-happiness link. A meta-analysis found that childbirth is associated with more positive emotion in daily experience even as life and relationship satisfaction are dampened (Luhmann, Hofmann, Eid, & Lucas, 2012). A study of individual variability in responses to becoming a parent found that only a small subset of new parents experienced sustained declines in happiness in the four years following the arrival of their first child (Galatzer-Levy, Mazursky, Mancini, & Bonanno, 2011). The life satisfaction of the majority of parents did not change, and a small but distinct group reported increased life satisfaction after becoming a parent. These studies show that parenthood is not uniformly associated with declines in happiness, but is nuanced and shaped by various contextual factors.

One well-documented challenge that may adversely affect the emotional lives of dual-earner parents with young children involves balancing parenthood with paid employment (e.g., Bianchi, Robinson, & Milkie, 2006; Jacobs & Gerson, 2004). In particular, the times of the day when the competing demands of work and a young family come together are recognized to be stressful and associated with declines in positive emotion and increases in negative emotion, particularly for mothers (Gilbert, 2006; Offer & Schneider, 2010). Offer and Schneider (2010), for example, found that mothers felt hassled and frustrated during the parts of the day when they were actively juggling the multiple demands of work, children, and household logistics.

The evening times that are associated with more negative emotion for mothers are also the time of day when family members are most likely to come together to engage in the shared routine of dinner. Eating together is a basic form of sociality, and dinners are an important space for socialization and building relational bonds (e.g., Eisenberg, Olson, Neumark-Sztainer, Story, & Bearinger, 2004; Ochs, Pontecorvo, & Fasulo, 1996). Across many societies, sharing food and eating together are key features of family life (Ochs & Shohet, 2006). Numerous studies suggest that regular family dinners are positively associated with better child dietary intake, parent-child relationships, and child social, academic, and health outcomes (Eisenberg et al., 2004; Fulkerson et al., 2006; Neumark-Sztainer, Hannan, Story, Croll, & Perry, 2003; Videon & Manning, 2003). At the same time, U.S. family dinners have been observed to involve negatively valenced parent-child negotiations over food (Ochs & Shohet, 2006). Yet, we know of no studies that have specifically examined how the socioemotional dynamics of family dinners, including those surrounding food, may influence mother and father emotion during this time of the day.

The negative feelings experienced by mothers in dual-earner families during weekday evenings when they are in the midst of balancing work, children, and household logistics have been linked to lower life satisfaction (Offer & Schneider, 2010). Indeed, one factor found to partly drive mothers’ drop in marital satisfaction after having children is the sense of unfairness at being primarily responsible for household work and childcare while also working outside the home (Dew & Wilcox, 2011; Larson, Richards, & Perry-Jenkins, 1994). In perhaps the only longitudinal study that followed women from their early 20s to their early 60s, the marital satisfaction of mothers was only found to increase after children left the home (Gorchoff et al., 2008). Although mothers’ negative experiences with the double shift of paid work and parenting can lower marital satisfaction, the extent to which happiness in marriage is tied to women’s daily emotional states—before and after parenthood—is not clear. Nonetheless, marital satisfaction is an important variable to consider when studying the everyday emotion valence of dual-earner mothers and fathers, and it would be reasonable to expect that low marital satisfaction would be associated with less positive emotion and more negative emotion in daily life.

The negative feelings that mothers report while balancing work and family are all the more interesting because women are socialized to express more positive than negative emotion in the service of relationships (Cross & Madson, 1997). A rich literature on gender and emotion suggests that women are socially rewarded for engaging in more positive expressivity via smiling and laughter (e.g., Cross & Madson, 1997; Halberstadt, Hayes, & Pike, 1988), and there is some indication that women smile more than men (LaFrance, Hecht, & Paluck, 2003). Most studies on this topic, however, have been conducted in laboratories or exclusively use self-report methods with young samples that are less likely to be married and/or parents (Kring & Gordon, 1998). Currently, it is not clear whether gender differences in women and men’s emotion expressivity extend to daily life or whether extant differences are robust to the special context of parenthood for gender or the stresses of mothers who balance marriage, children, and paid employment.

The Present Research

Studying the emotional valence of family life is important for (a) understanding whether dual-earner parenthood compromises the mild happiness that characterizes most people, (b) examining gender variation in emotion valence patterns, and (c) identifying factors that can elucidate why the evening hours when families are most likely to come together are particularly challenging for mothers. Studying the emotional valence of family life using naturalistic behavioral observation methodology is important because it provides a rich and close-up view of behavior as it spontaneously unfolds in everyday life. The extension beyond self-report to direct
assessment of behavior makes this approach particularly valuable and relevant to the study of emotion in family life. In the present study, we used a novel naturalistic behavioral observation dataset that allowed for intensive examination of positive and negative emotion in daily family life, including the evening hours when families typically eat dinner. Mothers and fathers in our dataset were continuously videotaped on two weekdays from the time that each left work until their children went to bed. We used these data to (a) test whether observed emotional tone and expressivity were consistent with the moderate levels of positivity documented in the emotion literature, (b) explore gender differences in emotion valence, and (c) qualitatively analyze dinner. Consistent with previous work on U.S. family dinners (e.g., Ochs et al., 1996), we qualitatively observed food-related talk to be the most salient feature of family dinner interaction and thus focused our analysis on the role of food-related talk as a possible contributing factor to mothers’ emotion valence during the evening time of the day.

Method

Participants

Participants were 30 mother–father couples with 2–3 children, at least one of whom was between 7 and 12 years old. Couples were 28–58 years of age (median = 41 for both), of European (67%), Asian and South Asian (13%), African American (7%), Latino (3%), and mixed heritages (10%), and had been together for 3–18 years of age (median = 28). At least one of whom was between 7 and 12 years old. Couples were between 7 and 12 years of age. Adolescents (at least one of whom was between 7 and 12 years old). Mothers and fathers in our dataset were continuously videotaped on two weekdays from the time that each left work until their children went to bed. We used these data to (a) test whether observed emotional tone and expressivity were consistent with the moderate levels of positivity documented in the emotion literature, (b) explore gender differences in emotion valence, and (c) qualitatively analyze dinner. Consistent with previous work on U.S. family dinners (e.g., Ochs et al., 1996), we qualitatively observed food-related talk to be the most salient feature of family dinner interaction and thus focused our analysis on the role of food-related talk as a possible contributing factor to mothers’ emotion valence during the evening time of the day.

Measures

Marital satisfaction. Before the weekday videotaping, all parents completed the Marital Adjustment Test (Locke & Wallace, 1959), a widely used, reliable measure of marital satisfaction (mothers: M = 66 minutes, SD = 1.66, p = .11). Marital satisfaction typically averages 115 (e.g., Karney & Bradbury, 1997), and scores <100 indicate some distress. This sample reported average marital satisfaction, and a paired sample t test showed that mothers (M = 108; SD = 24.43) and fathers (M = 115; SD = 20.31) did not differ in their marital satisfaction, t(29) = –1.66, p = .11.

Emotion. Our examination of emotion took place in two parts that used two different approaches. First, our assessment of mother and father emotion throughout the afternoon and evening of each day was based on a thin-slicing method that organized more than 1000 hours of video data. The term overall day was used to distinguish the variable that represents emotion during the full time span—aforenoon until children went to bed—from variables representing emotion during specific time segments that were examined separately (i.e., afternoon, evening, end-of-day). Second, our assessment of dinner-specific emotion and dinner food-related talk was based on the continuous video segment that captured each family’s dinner on each of the two weeknights.

Emotion in the overall day. A “thin slicing” method that cut >35 hours of videotape per family into 10-min intervals and designated the 30-s slice of video at the beginning of each 10-min interval for coding was used to obtain three indices of emotion valence in everyday life for mothers and fathers: emotional tone, positive expressivity, and negative expressivity. Thin slices of behavior, including emotion relevant behaviors such as smiling and touching (e.g., Harker & Keltner, 2001; Oveis, Gruber, Keltner, Stamper, & Boyce, 2009), are reliable indicators of emotion (Hertstein, Keltner, App, Bulleit, & Jaskolka, 2006; Oveis et al., 2009). The 10-min intervals began the moment participants left work and ended when the children went to bed for the night on two weekdays (2344 total clips). At the beginning of each interval, a 30-s slice of video was coded for emotional tone and markers of expressed positive and negative emotion. The study approved by the UCLA institutional review board, and all participants provided written informed consent before their participation.

Procedures

Study participation, including all video-recordings and marital satisfaction self-reports used in the present research, took place during the children’s school year. Trained research teams operated two high quality video cameras with wide-angle lenses; each camera was dedicated to observing the mother or the father as they went about their day. The recordings used in the analyses presented here were taken on two weekday afternoons and evenings. Families acclimated to the camera shortly after the first day of home interviews that took place before the two weekdays that are the focus of this study. Families were recorded starting from the time that each member of the couple left work for home until the children went to bed for the night.1

1 Daily videotaping began when families woke up to start their day, but the limited amount of morning video (M = 66 minutes, SD = 30 minutes) and the variability of family morning routines precluded inclusion of the morning video.

2 Privacy law concerns precluded videotaping during work hours, so a member of the research team met participants as they left work to begin recording.
and distances at which participants were videotaped as they went about their day precluded the use of established coding systems developed for use in more controlled settings, such as the Facial Action Coding System for coding facial muscle movements associated with felt emotion (FACS; Ekman & Friesen, 1978), or the Specific Affect Coding System for coding emotion relevant facial expressions and speech in dyadic interactions (SPAFF; Coan & Gottman, 2007). Thus, we developed a coding system for this naturalistic setting that drew from FACS. A coding team (seven women, three men, including the second and third authors) was trained by the FACS-certified first author with video clips drawn from times that fell outside of the 10-min intervals. Coders were blind to hypotheses during the coding and overlapped on 10% of the instances of observed positive emotion markers; and 7 was defined as continuously observed negative emotion markers throughout the 30 seconds. Coders also took into account the intensity of negative emotion markers they observed. Coded interrater reliability was ICC = .90.

**Emotional tone.** To measure emotional tone, coders rated the extent to which the behavior of each parent was marked by verbal and nonverbal markers of coldness/hostility or warmth/happiness on a Likert scale (1 = cold/hostile; 4 = neutral; 7 = warm/happy). Cold/hostile emotional tone was defined as short communication, flat or angry affect, and no evidence of positive affect. Neutral tone was defined as a task oriented, practical tone that was neither cold/hostile nor warm/happy. Warm/happy emotional tone was defined as warm voice tones, smiles, laughter, and head nods with no evidence of negative affect. Coders independently rated a parent’s emotional tone when they appeared in the video (a) alone, (b) with their partner (if present), or (c) with their 7- to 12-year-old child (if present). The latter rating was restricted to the 7- to 12-year-old child that all families were required to have to standardize interaction that might otherwise vary with stage of child development. Thus, up to three emotional tone variables could be rated for each parent in each 30-s video slice. Interrater reliabilities for emotional tone alone (ICC = .92), with partner (ICC = .91), and with child (ICC = .95) were high.

**Positive emotion expressivity.** To measure positive emotion expressivity, coders rated the extent to which each parent displayed smiles, laughter, head nods, forward leans, positive touches, and warm voice tones on a Likert scale (1 = not at all; 7 = many) regardless of whom the behaviors were directed toward. These behaviors have been associated with felt positive emotion (Ekman, 1972; Hertenstein et al., 2006). Coders were trained to identify facial movements indicative of anger and sadness such as (a) frowning with brows knitted together and lips tightened or pressed, (b) raising of the inner and outer eyebrows, with wrinkled space between eyebrows, widened eyes, and body turning inward, (c) raising of the inner eyebrows, with lips corners turned down and chin center raised to give wrinkled appearance, and (d) crying or angry voice tones, possibly with raised voice. A rating of 1 was defined as having no observable marker of negative emotion; 4 was defined as 2–3 instances of observed negative emotion markers; and 7 was defined as continuously observed negative emotion markers throughout the 30 seconds. Coders also took into account the intensity of negative emotion markers they observed. Coded interrater reliability was ICC = .95.

**Negative emotion expressivity.** To measure negative emotion expressivity, coders rated the extent to which participants displayed frowns, turning away, angry voices or flat affect, and negative touching on a Likert scale (1 = not at all; 7 = many) regardless of whom the behaviors were directed toward. These behaviors have been associated with felt negative emotion (Ekman, 1972; Hertenstein et al., 2006). Coders were trained to identify facial movements indicative of anger and sadness such as (a) frowning with brows knitted together and lips tightened or pressed, (b) raising of the inner and outer eyebrows, with wrinkled space between eyebrows, widened eyes, and body turning inward, (c) raising of the inner eyebrows, with lips corners turned down and chin center raised to give wrinkled appearance, and (d) crying or angry voice tones, possibly with raised voice. A rating of 1 was defined as having no observable marker of negative emotion; 4 was defined as 2–3 instances of observed negative emotion markers; and 7 was defined as continuously observed negative emotion markers throughout the 30 seconds. Coders also took into account the intensity of negative emotion markers they observed. Coded interrater reliability was ICC = .90.

**Qualitative analysis of dinner.** Ninety-two percent of family dinners occurred during the 5–8 p.m. period. With one exception, each family had two dinners recorded. All family members ate together at the same time in 60% of these dinners, and the other 40% of these dinners were characterized by family members eating in different locations and/or nonoverlapping times (Ochs, Shohet, Campos & Beck, 2010). On the latter occasions, the research team used the two cameras to capture all locations and times to the extent possible. All available dinner footage was coded. The mother was the sole or lead preparer in more than 90% of these dinners (Ochs et al., 2010).

Dinners were largely characterized by food-related talk and the socioemotional dynamics surrounding food. These rich, complex interactions often involved three or more family members at the same time, with individual behaviors setting in motion emotion laden social exchanges. Thus, our coding system was developed to document dinner specific emotion and behaviors, but also tap the process of emotion laden social exchange that dinner behaviors evoked. The finalized dinner coding system was drawn from categories generated from previous research on family dinners (e.g., Ochs et al., 1996) and by the first and third authors’ qualitative examination of observed dinnertime social interaction.

A second coding team (9 women; no overlap with first coding team) that was also blind to hypotheses was trained to code dinners. Video clips from other parts of the day were coded during training. Any disagreements that arose were discussed until resolution was reached. This procedure continued until coders regularly reached 100% agreement. Each coder was assigned 3–4 families (6–8 dinners) for final coding. Weekly meetings continued to be held during the final coding period to give coders the opportunity to raise issues and resolve any ambiguities that arose during the course of coding. The final set of dinners were drawn from 24 families (47 dinners; one was not recorded). Three families were not coded as a result of researcher error and, after coding was completed, one coder’s ratings were found to be unusable because of poor recordkeeping.

**Dinner emotion.** Coders rated the dinner emotion of each family member present on a 7-point Likert scale (1 = cold; 7 = warm) at two time points: the beginning of dinner and the end of dinner. The beginning of dinner was defined as the first three

---

3 Two families had one of their two dinners during the 8–9 p.m. hour. In both cases, the dinners occurred within 15 minutes of the end of the 5–8 p.m. evening segment.
minutes starting from the moment when the majority of family members presented sat down to eat. The end of dinner was defined as the last three minutes ending at the moment when the majority of family members present stopped eating and moved on to other activities. These two time points were selected because dinners ranged from 7 to 64 minutes (M = 28.48, SD = 14.90; Ochs et al., 2010), and this reduced family differences associated with variation in the timing and length of the dinners.

**Dinnertime talk.** Coders documented whether each family member present engaged in each of the following six types of food-related talk: (a) expressions of appreciation, (b) expressions of distaste, (c) reference to health, (d) reference to pleasure, (e) reference to food as a reward, and (f) negotiation over the terms of food rewards or penalties.

**Results**

Our goals were to (a) test whether observed emotional tone and expressivity were consistent with the moderate levels of positivity documented in the emotion literature, (b) explore gender differences in emotion valence, and (c) examine dinner food-related talk as a possible contributing factor to mothers’ emotion valence during the evening time of the day.

**Data Analytic Strategy**

We examined the overall day and dinner separately. For the overall day, we organized the 30-s video slices into 1-hr time blocks that spanned from 1–11 p.m. on each day. These hours captured the maximum time that any participant could be videotaped from the time they left work until the time they went to bed. Emotional tone and expressivity ratings for the six 30-s video slices captured per hour were averaged to represent a particular hour of each day. To examine the overall day, we averaged all hours across the two days. To examine emotion variation throughout the day, we cut each day into three segments that were widely shared across families—late afternoon (3–5 p.m.), evening (5–8 p.m.), and end-of-day (8–10 p.m.). Due to variation in daily routines, the peak number of mothers and fathers differed across time segments: 35 during the late afternoon, 59 during the evening, and 52 during the end-of-day segment.

For dinner, data were also aggregated over the two days. To examine mother and father dinner emotion and compare it with their emotional tone for the overall day, we computed a dinner emotion variable for mothers and fathers by averaging emotion tone ratings at the beginning of dinner and the end of dinner across the two days. Due to the broad participation in dinner by all family members and the complex, and often triadic, interdependencies of these data, which often involved the actions of three or more family members, we examined the frequency of the six categories of food-related talk and tested the association of talk frequency with family dinner emotion for the most common categories (>40% of families) using family level variables. For food-related talk, mother and father food-related talk was combined as “parents” and the food-related talk of all children present were combined as “children” across the two days. The resulting 12 variables represented the frequency of parent talk and child talk where at least one parent or one child per family engaged in each of the six types of food-related talk in at least one of the two dinners. For family dinner emotion, we averaged the ratings for mothers’, fathers’, and child’s dinner emotion at the beginning of dinner and the end of dinner across the two days.

**Was overall emotional tone and expressivity more positive or negative?** Table 1 shows mothers and fathers’ means and standard deviations for emotional tone and expressivity for the overall day. Consistent with emotion research, mothers and fathers were both above the 3.5 neutral midpoint and, thus, mildly positive in emotional tone for the overall day. Similarly, paired sample t tests indicated that positive expressivity was more frequent than negative expressivity for the overall day for mothers, t(29) = 8.51, p = .000, and fathers, t(29) = 8.50, p = .000.

**Were there gender differences in emotion tone and expressivity?** As Table 1 shows, mothers and fathers did not differ in emotional tone for the day when alone or when interacting with their partner, but fathers’ emotional tone when interacting with their 7- to 12-year-old child was warmer than that of mothers. To better understand this finding, we ran three paired sample t tests comparing mothers and fathers’ emotional tone toward their 7- to 12-year-old child during the late afternoon, evening, and end-of-day segments. One significant effect emerged. Father’s emotional tone toward the 7- to 12-year-old child (M = 4.38, SD = .49) was warmer than that of mothers (M = 4.27, SD = .38) only during the evening (5–8 p.m.) segment, t(28) = −3.50, p = .002.

Mothers and fathers had a largely similar mildly positive emotional tone for the overall day, but paired sample t tests indicated that mothers displayed more positive, t(29) = 2.48, p = .019, and negative, t(29) = 3.58, p = .001, emotion than fathers for the overall day. That is, mothers were observed to be more expressive than fathers even though both were similar in emotional tone.

**Did emotional tone and expressivity change across the day?** We examined changes in emotional tone and expressivity across the three segments of the day using multilevel modeling. This approach takes into consideration the multiple dependencies stemming from repeated measures of two partners belonging to a couple in our data and allowed inclusion of the maximum number of data per segment in our analyses. We treated aggregates of emotional tone, positive expressivity, and negative expressivity during three segments (late afternoon, evening, and end-of-day) per day for two days as nested within mothers and fathers. Separate coefficients were estimated for mothers and fathers using a multiple intercept approach to analyze dyadic data. Intercepts were

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Means and Standard Deviations for Overall Emotional Tone and Expressivity for Mothers and Fathers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mothers</td>
</tr>
<tr>
<td>Emotional tone</td>
<td></td>
</tr>
<tr>
<td>Alone</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>4.25</td>
</tr>
<tr>
<td>With partner</td>
<td>4.23</td>
</tr>
<tr>
<td>With child</td>
<td>4.15</td>
</tr>
<tr>
<td>Emotion expressivity</td>
<td></td>
</tr>
<tr>
<td>Positive emotion</td>
<td>2.05</td>
</tr>
<tr>
<td>Negative emotion</td>
<td>1.31</td>
</tr>
</tbody>
</table>

*Note.* Emotional tone (1 = cold; 7 = warm) and Positive and Negative Emotion expressivity variables (1 = not at all; 7 = many) on 7-point Likert scales. Significant gender differences are indicated via bolded rows.
allowed to vary randomly across couples to capture between-subjects differences in emotional tone and positive and negative expressivity. We tested differences between the three segments of the day by means of dummy variables that served as indicators for the evening and end-of-day segments. Specifically, we contrasted emotional tone and expressivity during the evening and end-of-day segments with emotional tone and expressivity during the late afternoon segment. The late afternoon segment, when family members reunited after the workday, was chosen as the contrast for two reasons. First, this segment captured the first interactions after the workday that may have set the tone for later interaction. Second, our previous work suggests that the greetings that occur during these postwork reunions may represent a peak of family positive emotion interaction (Campos, Graesch, Repetti, Bradbury, & Ochs, 2009). The model can be written as displayed in equation 1:

\[
EMOTION_{ij} = b_0 \text{mother}_i + b_2 \text{father}_j + b_3 \text{evening}_i
+ b_4 \text{end-of-day}_i + b_5 \text{end-of-day}_j + u_{ij}
+ u_{2i} + e
\]  

EMOTION is the emotional tone or expressivity of a spouse from couple \( j \) at time \( i \), and \( b_0 \) and \( b_2 \) are the intercepts for mothers and fathers, reflecting the emotional tone or expressivity in the sample during the late afternoon segment. The estimates for \( b_3 \) and \( b_4 \) capture the extent to which the mother’s and the father’s emotional tone or expressivity during the evening segment hours differed from that during the late afternoon segment, and \( b_5 \) and \( b_6 \) reflect the extent to which mother’s and father’s emotional tone or expressivity at the end-of-day segment differed from that during the late afternoon segment. The coefficients for \( u_1 \) and \( u_2 \) are the variance components, capturing differences between the mothers’ and fathers’ average emotional tone and expressivity from the sample average, and \( e \) is the error term.

In addition, we adjusted for each person’s differences in emotional tone and expressivity between the two days, and for individual differences in the number of coded observations for evening and end-of-day segments to address the possibility of artifact due to missing data patterns. The coefficients that resulted for these control variables were negligible.

Two significant effects emerged for the central analyses.\(^4\) Mothers’ positive expression of emotion \((b = -0.34, p = .04, \text{effect size } r = .32)\) and tone with spouse \((b = -0.45, p = .01, \text{effect size } r = .43)\) dropped significantly during the evening segment.\(^5\) Additional analyses allowing for variability in these effects across couples did not improve model fit. The patterns emerging from these effects are illustrated in Figure 1. The patterns also suggest that the finding of fathers showing a warmer emotional tone toward the target child may be attributable to mothers’ dips during the evening rather than higher overall levels or evening increases on the part of fathers.

**Was marital satisfaction associated with mother or father emotional tone and expressivity?** Due to the limited power of our small sample, we separately correlated marital satisfaction with the overall day emotional tone variables (alone, with partner, with child) and positive and negative expressivity ratings for mothers and fathers separately. None of the 10 correlations were significant. Given mothers’ drop in emotional tone and positive expressivity during the evening hours, we also correlated marital satisfaction with emotional tone and positive and negative expressivity during the evening hours specifically. One marginally significant finding emerged in the 10 correlational tests. For mothers, lower marital satisfaction was associated with more negative expressivity, \((r = -0.34, p = .06)\), during the evening hours.

**Was dinner food-related talk a possible factor in mothers’ evening emotion valence?** Figure 2 presents the frequency with which at least one parent or one child in each family engaged in the six types of food-related talk during dinners. In 75% of the families, children expressed distaste. Five other behaviors were observed, with considerably less frequency, in at least 40% of families. On the positive side, at least one parent expressed appreciation (46%) and at least one child also expressed appreciation (50%) and pleasure (46%). On the more negative side, and often in response to children’s expressed distaste, at least one parent negotiated with a child regarding eating (42%) and referenced food in terms of health (46%). Bivariate correlations on overall family dinner emotion and food-related talk that occurred in at least 40% of families revealed one significant effect. Children’s expression of distaste was negatively associated with overall family dinner emotion, \(r(18) = -.53, p = .03\). As further evidence that dinners contributed to mothers’ emotional ebb, a repeated measure ANOVA found mothers’ dinner emotion to be less warm \((M = 3.95, SD = .48)\) than their overall day emotional tone \((M = 4.27, SD = .21)\), \(F(1, 23) = 9.92, p = .01\). This was not true for fathers \((M = 4.14, SD = .20 \text{ vs. } M = 4.14, SD = .13), F(1, 21) = .00, p = .99\).

The negatively valenced socioemotional dynamics surrounding children’s expressions of distaste for certain foods (e.g., vegetables) or refusing to eat altogether upon presentation of food were starkly evident in the continuous video and largely occurred with mothers. For example, in one family, when the child came up to the table and saw that his mother was serving pasta, he exclaimed, “He-e-e-e-y! I thought you said quesadilla! H-e-e-y, you said quesadilla!” His mother explained that she changed the menu because she realized she did not have all the ingredients for a quesadilla. The child protested, “No. Then I’m not eating pasta,” and refused to eat until he received a clean plate that did not contain any pasta remnants. In another example, a child in a different family told his father as he was being served, “No, thanks, no tha-a-a-a-nks! I don’t like asparagus.” When his mother stated that everyone had to try some, he responded with, “Mom, you know I don’t like it. You gave it to me to torture me.”

Food-related talk involving negotiation also had a negative valence. Parents attempted to entice children with promises of tasty treats or other rewards (e.g., “I’ll give you a sticker if you eat all your carrots”) but also threats to not serve dessert or take away “dessert privileges” if children did not eat everything on their plates. Children’s counteroffers in response led to back-and-forth style negotiation. For example, the daughter of one family tried to

---

4 Testing multiple outcomes would warrant a Bonferroni-corrected significance level of \(p < .01\). However, given the exploratory nature of this analysis, the low power, and the fact that a Bonferroni correction increases the probability of false negatives, assuming a significance level of \(p = .01\) would result in an overly conservative test.

5 Effect size \(r = \sqrt{(t^2)/(t^2 + df)}\), (Snijders & Bosker, 1999). Applied to coefficients from multilevel models, these effect sizes should be interpreted with caution.
negotiate her way out of having to drink milk to obtain permission to drink soda. After prolonged cries of protest to the milk, negotiation ensued when the mother suggested, “If you’re not going to have milk, then you can eat a string cheese.” The daughter countered with her own suggestion: “I’ll have a Go-gurt®. This elicited a stern look from her mother, followed by reluctant acceptance. The child then asked, “Can I have [soda] and then I’ll have yogurt?” to which the father chuckled as he reminded her, “No, you have to eat your yogurt first. . . .” In another family, when the child refused to finish her dinner, her mother paused before telling the daughter, “Then you can’t have dessert.” This upset the child and instigated a long interaction that ended with the mother stating “I’m really tired of negotiating with you over this food time,” as she walked away.

Discussion

Most people are happy, and the dual-earner couples with young children that we studied were not an exception to this rule. The everyday life of our sample was mildly positive, but there were gender differences. Mothers were more emotionally expressive than fathers, but it was mothers’ positivity that dropped during the evening, and the negative social interactions set in motion by children’s vocal distaste for their dinner food were a likely contributing factor to this diminished positivity. These findings contribute to the study of families in three ways. First, they contextualize family life as embedded within an overall mild positivity that is seldom the focus of family researchers or public discourse. Second, they direct attention to dinner as a possible entry point for interventions that may benefit mothers’ weekday evening emotional states. Last, but not least, they highlight the importance of studying family processes as they naturally unfold with naturalistic observation methods and mixed method analysis. Studies that focus on the basic experiences of everyday life remain all too rare but are important for arriving at a more contextualized understanding of contemporary family life and relevant psychological processes.

All together, our findings indicate that the daily family life of our sample was mildly positive, and importantly, it is more positive than negative. This comparison of positive with negative emotion in daily family life—rather than a comparison to parenthood emotion or the emotional lives of those who do not have children—is timely for research and a public discourse that seems to increasingly highlight the negative aspects of having children. Indeed, the positive emotional tone observed in our sample is comparable with that of a sample of childless newlyweds studied in an apartment laboratory by Driver and Gottman (2004). This is particularly striking because we examined the most challenging hours of the day for dual-earner families whereas the Driver and Gottman (2004) sample was largely studied on a weekend day. The mildly positive valence of our sample, however, cannot be described as optimal “flourishing.” Flourishing is deemed to occur when the ratios of positive to negative emotion experience reach about 3:1 (Fredrickson & Losada, 2005), considerably higher than we observed in our sample.

Interestingly, marital satisfaction showed little association with any of our emotion variables. There was only one marginally significant finding indicating that mothers’ lower marital satisfaction was associated with more negative expressivity during the evening hours. We cautiously interpret this finding as suggesting that marital satisfaction may be most relevant to daily emotion patterns during times of the day when low satisfaction interacts with moments of challenge, such as those encountered by mothers during the weekday evening hours. However, it is also possible that our small size was not sufficiently powered to fully detect existing links between marital satisfaction and the emotional valence of everyday life.

How does the mild positivity we observed link to the literature on the negative effect that children can have on the life and relationship satisfaction of their parents? One possibility is that mild positivity falls short of high expectations for family happiness (Coontz, 2005; Mintz, 2004). If so, the mild positivity of family life may be difficult to appreciate. Our data could not address this possibility, but we see our findings as suggesting two future

Footnote 6: A brand of yogurt that is packaged in a soft plastic tube and marketed to children.
directions. First, future research should directly measure expectations for family life to better understand the filter through which the mild positivity of daily family life may be processed. Second, future research should examine whether flourishing ratios developed with nonfamily samples are generalizable to family life.

Despite the mild positivity of family life, the period between 5:00–8:00 p.m. was again found to be an emotional ebb in the day for mothers. Other work has identified multitasking (Offer & Schneider, 2010), the work–home double shift (Hochschild, 1989), and mothers’ perceptions that household labor is divided unfairly (Larson et al., 1994) as contributors to this ebb. Our qualitative work identified a new factor, family interactions during the dinner meal itself, and, in particular, children’s vocalized unhappiness with the food that their mothers labored to prepare (mothers prepared >90% of the dinners in this sample) as a contributor to this ebb. The difficult social interactions that followed children’s expressed distaste for their food were associated with a more negative emotional experience for all family members. Indeed, although mothers were generally more emotionally expressive than fathers—an important finding in its own right given the mixed literature on gender differences in expressivity—the negative valence of food-related interactions at dinner may be the reason mothers were observed to be less warm with their child than fathers during the evening. In direct contrast to the restorative effects of smooth and emotionally positive social interaction, these negative food-related interactions may have left mothers feeling emotionally and physically depleted (Finkel et al., 2006).

The negative social exchanges set in motion by children’s responses to food are an issue that has not been well-delineated in the literature on family psychology, or dinners specifically (e.g., Fiese et al., 2002; Neumark-Sztainer et al., 2004; Vuchinich, 1987). Sharing food is an essentially social act (Ochs et al., 1996) that should offer an opportunity to build relational bonds. Further, the social interaction that occurs during family dinners has been linked with greater family cohesion (Fiese et al., 2002) and positive child outcomes (Neumark-Sztainer et al., 2004). Yet, dinner food–related talk emerged as a salient and negative theme in our qualitative analysis of the evenings of our families. Indeed, food-related talk may have been the concrete starting point to more abstract dimensions of family dinner interaction (e.g., conflict, power, affiliation) that are important for child development and strong family bonds. This issue merits future study. Children’s responses to food may present an obstacle that is either overcome on the road to more positive dinner interaction that benefits child outcomes or interferes in the ritual building qualities of dinner that contribute to family cohesion (Fiese et al., 2002).

In our view, the dinner findings suggest that families’ food-related interactions are a viable entry point for interventions focused on increasing the emotional positivity of family life. Cross-national studies of food socialization practices indicate that children’s distaste for food that adults prepare is not a human universal. For example, Ochs et al. (1996) study of dinners among Italian families found that children were socialized into the pleasurable aspects of food and this orientation framed the family dinner experience. Italian children often asked about the delicious food to be prepared in anticipation of dinnertime, and dessert was not the “good part” of the meal that needed to be earned by eating displeasing food first. Americans, in contrast, tend to think of healthy eating and pleasurable eating in opposing terms (Rozin, Fischler, Imada, Sarubin, & Wrzesniewski, 1999). Currently, many public health interventions seek to change eating habits as a means to combat the U.S. obesity problem, but few target the family as a holistic entity and we know of none that focus on socializing the pleasure of tasting a variety of foods. Changing dinner food–related interaction, however, may increase the emotional and nutritional rewards of this daily routine and may be a motivating factor for families who might otherwise be reluctant to revise their approaches to food. This is important because the evening hours may be the only time that family members come together during the weekdays, and previous research has shown that emotionally positive social interaction, even during the course

![Figure 2. Food-related talk frequencies during dinner averaged across two days per family (n = 24).](image-url)
of mundane household chores, can benefit mothers’ emotional states (Larson et al., 1994).

A key strength of this work is the use of naturalistic observational methods and a mix of self-report, behavior, and quantitative and qualitative analysis to study emotion in family life. Naturalistic observation provides an objective and uniquely ecologically valid lens on the emotional tone of everyday family life that is not possible with self-reports (Rewet, Wang, & Sears, in press). Participants knew they were being videotaped, but the ability to act on social desirability concerns was attenuated by the extended duration of the videotaping and the challenge of regulating emotions during spontaneous social interaction (particularly with children). Thus, we were able to document both the general emotion pattern of the postwork weekdays as well as the complex emotion laden interactions that occurred during dinners with coding systems that captured the content of behaviors as well as the processes that behaviors evoked (e.g., negotiations over food rewards or penalties). This approach allowed for an examination of emotion valence in everyday family life that cannot be achieved with other methods and that yielded unique new findings.

This work also had limitations. The sample was quite small and may not extend to people in different circumstances that increase negative emotion and decrease access to positive emotion (e.g., families in financial distress, single working parent families). The small sample size also limited our statistical power. Furthermore, we were only able to focus on weekday afternoons and evenings, a timing that likely underestimated positive emotion. We are also mindful that emotion experience and display do not always cohere (e.g., Mauss, Levenson, McCarter, Wilhelm, & Gross, 2005) and the emotion behaviors likely reflect some combination of felt emotion and social display. Expressive displays, however, are important signals that can affect the internal state of self and others (Soussignan, 2002), and brief slices of expressivity have been possible with self-reports (Repetti, Wang, & Sears, in press).


Received April 8, 2012
Revision received October 9, 2012
Accepted October 11, 2012