**Baby Fever: Dialing Up Empathy and the Desire to Have Children**

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Abstract

Personal experiences (e.g., in stores, on airplanes) and conversations with colleagues and friends are likely to make both the joys and the stresses associated with raising children salient and consequently shape the desirability of having children. Moreover, biologists, sociologists, economists, and psychologists have all ventured to answer this important question—what motivates the decision to have children? In four studies, we find that momentary feelings, specifically, empathic emotions, play a pivotal role in shaping young adults’ (i.e., ages 18-35) desire to have children. In our first study, we find that empathy predicts greater desire to have children over and above happiness, meaning in life, and relationship status. In our remaining studies, we used an experimental approach and find that viewing positive parent-child moments evokes empathy and greater desire to have, relative to images of adults alone (Study 2), images of negative parent-child moments (Study 3 and Study 4), and product-only controls (Study 3 and Study 4). Moreover, the effects of positive parent-child images on empathy and desire for children are independent of increases in positive mood. Our results suggest that young adults facing decisions about having children may be particularly influenced by their surroundings.

*Keywords*: empathy, baby fever, children, parenthood, emotions

Baby Fever: Empathy Predicts Desire to Have Children

From social media to major media, children are a prevalent topic. Personal experiences (e.g., in stores, on airplanes) and conversations with colleagues and friends are likely to make both the joys and the stresses associated with raising children salient and consequently shape the desirability of having children. Moreover, biologists, sociologists, economists, and psychologists have all ventured to answer this important question—what motivates the decision to have children? Explanations include ticking biological clocks, societal pressures and social norms, practical cost-benefit analyses, and personal point-of-view based on life stage and mental readiness. Such explanations are compelling because they focus attention on valid motivational and rational drivers of a highly consequential and increasingly personal decision. However, we find that momentary feelings, specifically, empathic emotions, play a pivotal role in shaping young adults’ (i.e., ages 18-35) desire to have children.

**Decisions to Have Children**

Children have a profound impact on their parents’ lives with major emotional, social, and financial implications (Nelson, Kushlev, & Lyubomirsky, 2014). Accordingly, young adults empowered with greater choice likely do not take the decision to have children lightly. As childbearing increasingly becomes a personal decision rather than a foregone conclusion, understanding the psychological factors that predict desire for children, as well as the extent to which that desire is malleable, is an important avenue for scientific inquiry.

Early research on desire to have children drew primarily on a cost-benefit model (Fawcett, 1978), suggesting that people choose whether to have children or not after weighing the pros and cons. From this approach, emphasizing the perceived costs of childcare (e.g., relationship strains) would decrease people’s desire for children. To the contrary, perceived costs of childrearing do not attenuate the desire to have children (van Balen & Trimbos-Kemper, 1995; but see Brase & Brase, 2011), suggesting that the desire to have children may stem from a less rational process, such as socialized norms or other psychological influences.

Studies asking young adults directly *why* they want to have children suggest a number of motives for childrearing, including (a) emotional benefits (e.g., love, happiness; Langdridge, Sheeran, & Connolly, 2005; van Balen & Trimbos-Kemper, 1995), (b) identity fulfillment (Newton, Hearn, Yuzpe, & Houle, 1992; van Balen & Trimbos-Kemper, 1995), and (c) social pressure (Morgan & King, 2001; Newton et al., 1992). In addition, evolutionary theory suggests that parenting is a fundamental human motive (Kenrick, Griskevicius, Neuberg, & Schaller, 2010), and others suggest that the drive for children may even be genetically determined (Morgan & King, 2001). Although these motivations have been established by previous literature, remaining questions include: 1) whether the desire to have children is *malleable* and 2) how one’s *emotional state* factors into the desire to have children.

Drawing on the prevalence of children in social media and other media outlets, we examined how depictions of positive and negative parent-child moments influence young adults’ desire to have children. Building from previous research indicating that individuals who had positive experiences with children reported greater desire to have children (Brase & Brase, 2011), we examined whether exposing people to positive images of unknown children leads them to want children more. Furthermore, we establish a key emotional mechanism explaining the increased desire to have children—namely, empathy.

**Empathy**

Empathy is an emotional response that is typically elicited after viewing another person in need (Batson, 1987, 1991). Specific emotions associated with empathy include tenderness, sympathy, compassion, and soft-heartedness (Lishner, Batson, & Huss, 2011). Moreover, several studies have found that children evoke empathy. Viewing images of toddlers, as well as adults with infant-like characteristics, elicited empathic emotions (Lishner et al., 2008, 2011).

Theory suggests that feelings of empathy evolved in humans as part of the parental instinct (Batson, 2010; Bell, 2001; McDougall, 1908). Although such instincts are critical to offspring survival and childrearing, this emotional response may be triggered by children more generally. Accordingly, feelings of empathy may increase desire to have children. To our knowledge, however, no studies have directly tested the association between empathy and desire to have children. In line with this logic, we predicted that viewing positive portrayals of parents and children would lead young adults to feel greater empathy, which would in turn predict desire to have children.To establish the specificity of this response, we contrasted whether positive parent-child moments predict greater empathy and desire for children over and above negative parent-child moments (which should also evoke empathy; Lishner et al., 2011).

**Alternative Hypotheses**

We also sought to eliminate two alternative hypotheses. First, instead of evoking empathy specifically, one possibility is that the desire to have children is related to global emotional well-being. Empathy is positively correlated with happiness (Wei, Liao, Ku, & Shaffer, 2011), and both happiness and meaning in life have been found to precede and follow the birth of a child (Kim & Hicks, in press; Luhmann, Lucas, Eid, & Diener, 2013; Nelson et al., 2014). Accordingly, we tested the association between empathy and desire to have children independent of happiness, meaning in life, and positive and negative emotions.

Second, perhaps the circumstances of one’s life more strongly predict desire to have children than do emotions. Previous research (Brase & Brase, 2011) holds that (a) women have a relatively greater desire to have children; (b) young adults must have children before they are “too old”; and (c) people in relationships have a relatively stronger desire to procreate. Accordingly, we examined the association between emotional predictors of desire to have children independent of gender, age, and relationship status.

**Current Research**

Here we present four studies drawing on multiple methodologies examining the role of emotion on intentions to have children. Because little research has examined the association between emotion and desire to have children, we began with a correlational study examining the psychological (empathy, subjective happiness, meaning in life) and demographic (age, gender, relationship status) predictors of desire to have children among young adults (ages 18-35) without children.

In our remaining studies, we used an experimental approach to determine whether viewing positive parent-child moments evokes empathy and greater desire to have children. In our second study, we compared whether portrayals of positive parent-child moments (versus only adult moments) leads to increases in desire for children via increases in empathic emotions. In our third study, we contrasted the effects of positive parent-child moments with negative parent-child moments, which should also evoke empathy. Finally, in our fourth study, we examined whether the mediating role of empathy on desire for children is independent of a general positive mood.

**Study 1**

**Method**

**Participants.** Four hundred thirty-four adults ages 18 to 35 (*Mage =* 24.70, *SD* = 3.95) without children were recruited to complete a 20-minute survey using Amazon’s Mechanical Turk (mTurk) service and compensated $0.75 for their time. Internet sampling offers a number of advantages, such as increased demographic diversity (Gosling, Vazire, Srivastava, & John, 2004), and recent evidence supports the reliability of data obtained from mTurk samples in particular (Buhrmester, Kwang, & Gosling, 2011). Twenty-four participants failed an attention check and were thus excluded from subsequent analyses, resulting in a final sample of 410 (58.6% female). The majority of participants were White (70.8%), followed by Latino(a) (8%), African American (7.6%), Asian American (6.2%), More than One/Other (5.3%), American Indian/Alaskan Native (1.3%), Middle-Eastern (0.4%), and Hawaiian/Pacific Islander (0.2%).

**Measures.**

*Desire to have children.* To assess desire to have children, participants were asked: “Do you want to have kids?” (*Yes/No/Not Sure).* Fifty-five percent indicated that they wanted to have children, 26.3% indicated that they did not want to have children, and 18.7% were unsure. They were also asked to rate the extent to which they want to have children (i.e., “To what extent do you want to have children?”) on a scale from 1 (*not at all*) to 7 (*very much*). The average rating for desire for children was 4.42 (*SD* = 2.21).

*Happiness.* Participants completed the 4-item Subjective Happiness Scale (Lyubomirsky & Lepper, 1999). For example, participants were asked: “In general, I consider myself: 1 *(not a very happy person*) to 7 *(a very happy person*).” This scale was reliable in this sample, α = .89.

*Meaning in life.* Participants completed the ten-item Meaning in Life Questionnaire (Steger, Frazier, Oishi, & Kaler), which assesses both the presence of and search for meaning in life. For example, participants responded to items such as “My life has a clear sense of purpose” (presence), and “I am looking for something that makes my life feel meaningful” (search) on a scale from 1 (*absolutely untrue*) to 7 (*absolutely true*). Both subscales demonstrated good reliability in this sample (presence subscale, α = .92; search subscale, α = .91).

*Empathy.* Participants completed the Empathic Concern subscale of the Interpersonal Reactivity Index (Davis, 1980, 1983). Participants responded to seven items (e.g., “I often have tender, concerned feelings for people less fortunate than me”) on a scale from 1 (*does not describe me well*) to 7 (*describes me very well*). This scale demonstrated good reliability in this sample, α = .88.

**Results**

**Analytic approach.** We analyzed responses from both the forced choice and continuous measures of desire for children. To test our hypotheses using the forced-choice item, we conducted one-way ANOVAs for continuous variables and chi-squares for categorical variables. For example, to compare those who do, do not, and are unsure whether they want to have kids in terms of age and gender, we conducted a one-way ANOVA and chi-square, respectively. To test our hypotheses using the continuous measure of desire for children, we conducted bivariate correlations (for continuous variables), independent samples *t*-tests (for dichotomous variables), and a multiple regression (all variables entered simultaneously).

**Demographic predictors.** On both measures of desire for children, people who wish to have children did not differ in age, *r*(410) = -.05, *p* = .35, *F*(2, 408) = 0.62, *p* = .54, or gender, *t*(410) = 0.26, *p* = .80, χ2(2) = 1.54, *p* = .46, from those who do not wish to have children. Not surprisingly, people who were in a relationship were more likely to indicate that they wanted to have children, relative to those who were not in a relationship, on both the forced-choice and continuous measurement of desire for children, χ2(2) = 8.48, *p* = .01, and *t*(410) = 3.67, *p* < .001, *res* = .18, respectively.

**Individual differences.** People who indicated that they wanted to have children on the forced choice item reported significantly greater presence of meaning in life, subjective happiness, and empathic concern than those who were unsure or did not wish to have children (see Table 1).

Next, we analyzed the bivariate correlations among individual differences and the extent to which people wanted to have children (continuous measure). Consistent with the forced-choice measure, desire for children was positively correlated with subjective happiness, presence of meaning in life, and empathic concern (see Table 2). Finally, we conducted a multiple regression analysis to test the independent associations among each individual difference measure and desire for children. In this model, presence of meaning in life, subjective happiness, and empathic concern each independently predicted desire for children, controlling for all other individual differences, as well as relationship status (see Table 3).

**Discussion**

We found that young adults who are in a relationship, are happier, have greater meaning in life, and have higher trait empathy were more likely to indicate that they want to have children. Contrary to popular perceptions, desire to have children was unrelated to age or gender. To better understand the causal role of emotions in decisions to have children, we conducted an experiment to investigate the degree to which presenting images of positive parent-child moments leads people to report greater desire to have children via increases in empathy.

**Study 2**

**Method**

**Participants.** We recruited 186 adults (98 female) ages 18 to 35 (*Mage =* 24.64, *SD* = 4.12) without children using mTurk and compensated them $0.50 for their time. To protect against any potential selection biases related to the topics of parenthood and children, respondents were recruited under the auspices of an “Advertising & Young Adult Life Survey.” All participants who passed the eligibility requirements for age and non-parent status immediately participated in the study. The majority of participants were White (68.9%), followed by African American (9.8%), Asian-American (8.7%), Latino(a) (6%), and other (6.6%).

**Procedure.** At the beginning of the study, participants were told that we were interested in their impressions of advertisements for a variety of brands. After logging in to the study website, participants were randomly assigned to view advertisements depicting positive parent-child moments (*n* = 63), identical advertisements with the child removed (*n* = 62), or an advertisement depicting only the product (*n* = 61). Across all conditions, the layout was held constant, and each participant viewed eight advertisements. In the positive parent-child condition, parents and children were featured in each advertisement. To create an identical adult only comparison condition, these same images were edited to remove the child originally pictured. No people were pictured in the product only condition (see Figure 1 for sample advertisements). Preliminary analyses revealed no significant differences between the adult-only and product control conditions on any measured variable in the study, all *t*s < 1.57, *p*s > .12, *r*ses < .14. Accordingly, subsequent analyses compare the positive parent-child condition to the adult-only control. Notably, however, the results were nearly identical when comparing the parent-child condition to the product-only control.

**Measures.**

*Empathic emotions.* Immediately after viewing the images, participants rated the extent to which the images elicited empathic emotions (i.e., tenderness, compassion, sympathetic, softhearted; α = .92; Batson, Lishner, Cook, & Sawyer, 2005; Lishner et al., 2008).

*Desire to have children.* After viewing the images, participants indicated their desire for children on the same items as those used in Study 1.

**Results**

**Desire to have children.**After viewing parent-child advertisements, young adults reported a stronger desire to have children relative to viewing advertisements with only an adult, *t*(120) = 2.36, *p* = .02, *res* = .21. In addition, participants who viewed parent-child advertisements were also marginally more likely to indicate that they desire children on the forced-choice item χ2(2) = 4.67, *p* = .097 (see Figure 2).

**Empathic emotions.**After viewing the parent-child images, participants reported significantly greater empathy, *t*(120) = 4.42, *p* < .001, *r* = .37 than those who viewed adult-only control images.

**Indirect effects***.* Next, following Preacher and Hayes’ (2008) recommended procedures, we tested the indirect effects of condition (0 = adult only, 1= adult with child) on desire for children via increases in empathic emotions. Using Hayes’ (2013) PROCESS macro (Model 4) with 5,000 bootstrapped samples, we found a significant direct effect of condition on empathic emotions (a path), *b* = 1.35, *p* < .0001, and of empathic emotions on desire for children (b path), *b* = 0.28, *p* = .003. In addition, the indirect effect of empathic emotions was also significant, *b* = 0.37, S.E. = 0.15, 95% CI: 0.13, 0.74. Finally, the direct effect of condition on desire for children was significant in the unmediated model, *b* = .90, *p* = .02, and dropped below significance when empathic emotions were entered into the model, *b* = 0.53, *p* = .18. Together these results provide evidence that empathic emotions partially explain the effect of viewing positive parent-child relationships on desire for children.

**Discussion**

Our second study indicates that viewing images depicting positive parent-child moments leads young adults to report a stronger desire to have children on both a forced choice and continuous scale. Moreover, viewing images depicting positive parent-child moments led participants to feel tenderness, sympathy, and compassion (i.e., empathic emotions), which in turn predicted greater desire for children. One possibility is that our positive depictions of parent-child moments merely made something positive salient, increasing reported desirability in a valence-congruent way. If accessibility of positive thoughts (rather than empathy) was driving the process, then viewing negative parent-child moments should have the opposite effect, producing negative thoughts and reducing desire for children. Next, we consider the alternate hypothesis that viewing negative parent-child moments might decrease young adults’ desire for children.

**Study 3**

**Method**

**Participants.** We recruited 165 adults (43% female) ages 18 to 35 (*Mage* = 24.85, *SD* = 4.00) without children from mTurk for an advertising survey. All participants were compensated $0.25 for their completion of a short 5 to 7 minute survey assessing their reactions to a series of advertisements. The majority of participants were White (63.6%), followed by Asian American (10.9%), African American (8.5%), Latino(a) (7.3%), Other/More than One (3.0%), and Hawaiian/Pacific Islander (0.6%).

**Procedure.** Participants were recruited for an “Advertising Survey” and told that we were interested in how different types of advertisements influence their thoughts and feelings. After logging in to the study website, participants were randomly assigned to view advertisements depicting positive parent-child moments (*n* = 55), negative parent-child moments (*n* = 54), or an advertisement depicting only the product (*n* = 55). The layout was held constant across conditions; each participant viewed eight advertisements. In the positive and negative parent-child moment conditions, the parents and children pictured were held constant. No people were pictured in the product only condition. See Figure 3 for sample advertisements.

*Empathic emotions.* We measured empathic emotions using the same scale as used in Study 2, which demonstrated good reliability in the current sample (α = .87).

*Desire for children.* Participants completed the same continuous item assessing desire for children as used in the first two studies. The average rating for desire for children was 4.22 (*SD* = 2.11).

**Results**

**Desire for children.** A one-way ANOVA revealed no significant differences among conditions in desire for children, *F* (2, 154) = 1.29, *p* = .28.

**Empathic emotions.**  A one-way ANOVA revealed significant differences in empathic emotions by condition, *F*(2, 154) = 9.64, *p* < .001. A planned contrast (positive parent-child images = +1, negative parent-child images = 0, control images = -1) indicated that participants who viewed positive parent-child images (*M*  = 3.88, *SD* = 1.52) reported significantly greater empathic emotions than those who viewed negative parent-child images (*M*  = 3.08, *SD* = 1.61) or control images (*M* = 2.54, *SD* = 1.62), *t*(154) = 4.36, *p* < .001, *r* = .33.

**Indirect effects.** We again tested the indirect effect of viewing positive parent-child images on desire for children via empathic emotions using Preacher and Hayes (2013) recommended procedures (Model 4; 5,000 bootstrapped samples). Because participants were randomly assigned to one of three conditions, these analyses produce two indirect effects: 1) the indirect effect of positive ads vs. product only ads on desire for children through empathic emotions and 2) the indirect effect of positive ads vs. negative ads on desire for children through empathic emotions. Relative to control images, positive images predicted greater empathic emotions (a path), *b* = 1.34, *p* < .0001. In turn, empathic emotions predicted greater desire for children (b path), *b* = 0.45, *p* < .0001. The effect of positive images on desire for children (c path) was marginal in the unmediated model, *b* = 0.65, *p* = .11, and dropped well-below significance when empathic emotions were included in the model (c’ path), *b* = 0.07, *p* = .87. Moreover, indirect effect of empathic emotions was also significant, *b* = 0.60, *S.E.* = 0.20, 95% CI: 0.29, 1.09.

Analyses of indirect effects comparing positive parent-child images to negative parent-child images followed a similar pattern. Relative to negative parent-child images, positive parent child images predicted greater empathic emotions (a path), *b* = 0.80, *p* = .01, and empathic emotions, in turn, predicted greater desire for children (b path), *b* = 0.45, *p < .*0001. Although the effect of positive parent-child images was not significant in the unmediated model (c path), *b* = 0.26, *p* = .52, it decreased substantially when empathic emotions were entered in the model (c’ path), *b* = -0.09, *p* = .81. Moreover, the indirect effect of empathic emotions was significant, *b* = 0.36, *S.E.* = 0.16, 95% CI: 0.08, 0.72.

**Discussion**

The results of this study again support the hypothesis that viewing positive parent-child moments increases participants’ desire for children via increases in empathic emotions. Notably, viewing negative parent-child moments did not lead to decreases in participants’ desire for children, casting doubt on the alternate notion that desirability could be explained by a mere valence-congruent thoughts account.

We have now demonstrated in two experiments that increases in empathic emotions predict greater desire for children. Arguably, however, the increases in empathic emotions as a result of viewing positive parent-child moments could simply represent a general increase in positive emotion. Accordingly, using the identical Study 3 manipulation, we investigated the unique effects of positive parent-child moments on empathic emotions, as well as positive emotions and negative emotions in Study 4.

**Study 4**

**Method**

**Participants.** We recruited 71 adults (39 female) ages 18 to 34 (*Mage =* 25.94, *SD* = 3.88) without children using mTurk. The majority of participants were White (66.2%), followed by African American (12.7%), Asian-American (12.7%), Latino(a) (4.2%), more than one (2.8% and other (1.4%).

**Procedure.** We used an identical procedure to that of Study 3. Participants were randomly assigned to view advertisements depicting positive parent-child moments (*n* = 23), negative parent-child moments (*n* = 23), or an advertisement depicting only the product (*n* = 25).

**Measures.**

*Positive and negative emotions.* After viewing the full set of advertisements, participants rated the degree to which they felt positive and negative emotions (adapted from similar items on the PANAS-X; Watson & Clark, 1994) while viewing the advertisements on a scale from 1 (*not at all*) to 7 (*very much*), using the same items as in Study 2. We created separate composites for positive emotions (5-items: caring, pride, affection, happiness, grateful; α = .93) and negative emotions (10 items: anxiety, sadness, burdened, constrained, fearful, frustrated, disgusted, guilty, limited, worried; α = .90), both of which demonstrated good reliability in the current sample.

*Empathic emotions.* Participants completed the same measure of empathic emotions as used in Study 2 and Study 3, which demonstrated good reliability in the current sample (α = .94).

*Desire for children.* Participants completed the continuous measure of desire for children used in the first three studies. The average rating for desire for children was 4.25 (*SD* = 2.10).

**Results**

**Desire to have children.**We found a significant effect of advertisement condition on desire for children, *F*(2, 68) = 3.17, *p* = .048 and conducted planned contrasts (see Table 4). After viewing positive parent-child images, young adults reported a stronger desire to have children, relative to viewing negative parent-child images and product only controls.

**Emotions.**We also found significant differences in positive emotions, negative emotions, and empathic emotions (see Table 4). Most notably, participants in the positive parent-child condition reported significantly greater positive emotions and empathic emotions than both those in the negative and product-only conditions.

**Indirect effects***.* Using the recommended technique for testing conditional indirect effects (Hayes 2013), we conducted process analyses (Model 4) entering all three emotion measures (empathic emotions, positive emotions, and negative emotions) simultaneously as potential mediators. Again we used 5,000 bootstrapped samples, examined indirect effects for the three groups observed, and found that with all variables in the model, only the indirect effect for empathic emotions was significant.

Relative to product-only control images, positive parent-child images elicited greater empathic emotions (a path), *b* = 1.95, *p* = .0001, which in turn predicted greater desire for children (albeit non-significantly, b path), *b* = .45, *p*  = .15. The indirect effect of positive parent-child images on desire for children via empathic emotions was significant, *b* = 0.88, *S.E.* = 0.57, 95% CI: 0.06, 2.43. Moreover, the effect of positive parent-child images on desire for children was significant in the unmediated model (c path), *b* = 1.33, *p* = .03, and dropped well below significance when mediators were entered in the model (c’ path), *b* = 0.39, *p* = .47 (see Figure 4). The confidence intervals for both positive emotions (95% CI: -0.24, 1.53) and negative emotions (95% CI: -1.09, 0.03) included zero.

Results were similar when comparing the positive parent-child images to negative parent-child images. Relative to negative images, positive parent-child images elicited greater empathic emotions (a path), *b*  = 1.49, *p* = .003, which in turn predicted greater desire for children (b path), *b* = 0.45, *p* = .15. The indirect effect of positive parent-child images on desire for children via empathic emotions was significant*,* *b* =0.68*,* *S.E*.= 0.46, 95% CI: 0.04, 1.95. Again, the effect of positive parent-child images on desire for children was significant in the unmediated model (c path), *b* = 1.26, *p* = .04, and dropped well below significance when mediators were entered into the model (c’path), *b* = 0.06, *p* = .92 (see Figure 4). Confidence intervals for both positive emotions (95% CI: -0.14, 1.32) and negative emotions (95% CI: -0.22, 0.73) included zero.

**Discussion**

These findings further replicate the role of empathic emotions in promoting desire to have children. In addition, the increase in empathic emotions and resulting greater desire to have children is independent of general increases in positive emotions. These findings remained consistent when comparing to a negative parent-child condition or to a product-only control, suggesting that the shift in desire for children is driven by eliciting a specific type of emotion (empathic emotions) rather than general affect or valence-congruent expectations.

**General Discussion**

Across four separate studies, we found that empathy consistently predicted greater desire to have children. Moreover, we found that presenting young adults with images of positive parent-child moments led them to greater desire to have children, which was explained in part by empathic emotions. That is, viewing images of parents sharing a positive moment with their child led young adults to feel greater tenderness, compassion, and sympathy, which in turn predicted greater desire for children. These findings remained consistent whether comparing to a neutral control condition or to an alternative empathy-eliciting stimuli (i.e., negative parent-child moments). To our knowledge, these are the first studies demonstrating the malleability of desire to have children.

Our results support the theory that empathy evolved as a generalization of the parental instinct (Batson, 2010; Bell, 2001; McDougall, 1908). Consistent with previous evidence that viewing images of children elicits feelings of empathy (Lishner et al., 2011), we add to this literature by demonstrating that empathy predicts greater desire to have children. Notably, these results remained consistent even after controlling for feelings of general positive emotions, supporting the unique effect of empathy in the current studies.

In addition, we found that viewing positive, but not negative, parent-child moments influenced young adults’ desire for children. This asymmetric finding was surprising, given previous evidence that negative events influence behavior more strongly than positive ones (Baumeister, Bratslavsky, Finkenauer, & Vohns, 2001). One possibility may be that the negative parent-child moments, which largely depicted children behaving badly, were viewed as mildly amusing rather than negative. Future work implementing more powerful negative images would be informative. For example, given evidence that marital discord, financial strain, and negative emotions all predict lower well-being among parents (Nelson et al., 2014), future work could aim to highlight these areas of strain as potential inhibitors of desire for children.

Although these studies are among the first to depict the power of images and emotions for young adults’ desire to have children, they should be considered in light of a few limitations. First, each of our studies comprised a relatively short period of time. Accordingly, we cannot determine whether viewing images of positive parent-child moments would have long-term implications for young adults’ desire to have children. In addition, given the rating scale used to assess desire for children, one possibility may be that viewing images of children leads those who already want children to want them even more. Notably, however, we found similar effects in our second study when analyzing the forced choice measure of desire for children. Future work is needed examining this and other boundary conditions of our effects.

**Concluding Remarks**

Our results suggest that young adults facing childbearing decisions may be particularly influenced by their surroundings. In a world where relationship imagery is abundant and frequently shared, understanding how such portrayals influence young adults’ emotions and desires to have children is important, particularly when those inclinations carry such substantial social and economic consequences.

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Table 1

Differences among people who do, do not, and are not sure if they want to have children.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Yes  (*n* = 226) | No  (*n* = 108) | Not Sure  *(n* = 77) | *F*(2, 408) |
| Presence of Meaning | 23.30 (7.23)a | 19.19 (7.79)b | 20.83 (6.94)b | 12.25\*\*\* |
| Search for Meaning | 24.45 (6.08)a | 24.19 (7.38)a | 24.42 (7.06)a | 0.06 |
| Subjective Happiness | 4.79 (1.35)a | 4.02 (1.47)b | 4.32 (1.30)b | 12.29\*\*\* |
| Empathic Concern | 5.28 (1.08)a | 4.91 (1.42)b | 4.90 (1.09)b | 5.24\*\* |

*Note.* Subscripts represent significant differences across groups.

\**p* < .05, \*\**p* < .01, \*\*\* *p* < .0001

Table 2

*Correlations among individual difference measures and desire for children*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 |
| 1. Desire for children | - |  |  |  |
| 2. SHS | .31\*\*\* | - |  |  |
| 3. MLQ-presence | .32\*\*\* | .62\*\*\* | - |  |
| 4. MLQ-search | .02 | -.07 | -.19\*\*\* | - |
| 5. IRI-EC | .19\*\*\* | .16\*\* | .30\*\*\* | .12\* |

Note: *\*p* < . 05 \*\**p* < .01 \*\*\**p* < .001

Table 3

*Multiple regression predicting desire for children from demographic and individual difference measures (Study 1).*

|  |  |  |
| --- | --- | --- |
| *Effect* | *β* | *t* |
| Relationship Status | .11 | 2.35\* |
| Presence of Meaning in Life | .18 | 2.85\*\* |
| Search for Meaning in Life | .06 | 1.28 |
| Empathic Concern | .10 | 2.01\* |
| Subjective Happiness | .17 | 2.91\*\* |

*Note:* \**p* < .05 \*\**p* < .01.

Age and gender were not included in this model because they were not significant predictors of desire for children. We note, however, that the direction and significance of each predictor does not change when age and gender are included.

Table 4

*ANOVA results for emotions by ad condition in Study 4; means and standard deviations displayed.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Negative Parent-Child Moments  (*n* = 23) | Product Only Control  *(n* = 25) | Positive Parent-Child Moments  (*n* =23) | *F*(2, 68) | *tcontrast* (68) | *res* |
| Desire for Children | 3.87 (2.12) | 3.80 (1.92) | 5.13 (2.07) | 3.17\* | 2.10\* | .24 [.01, .45] |
| Positive Emotions | 2.85 (1.69) | 2.36 (1.53) | 3.90 (1.79) | 5.29\*\* | 2.14\* | .25 [.02, .46] |
| Negative Emotions | 2.76 (1.05) | 1.80 (1.21) | 2.43 (1.35) | 3.89\* | -0.91 | -.11 [-.34, .13] |
| Empathic Emotions | 2.86 (1.46) | 2.40 (1.58) | 4.35 (1.89) | 8.98\*\*\* | 4.08\*\*\* | .44 [.23, .61] |

*Note:* \* *p* < .05, \*\* *p* < .01, \*\*\**p* < .001

Contrast weights: positive parent child-images = +1, control images = 0, negative parent-child images = -1

Contrast weights for empathic emotions: positive parent-child images = +1, control images = -1, negative parent-child images = 0

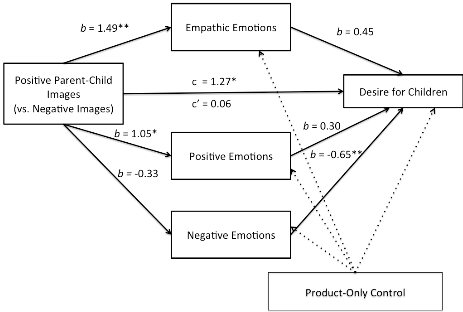
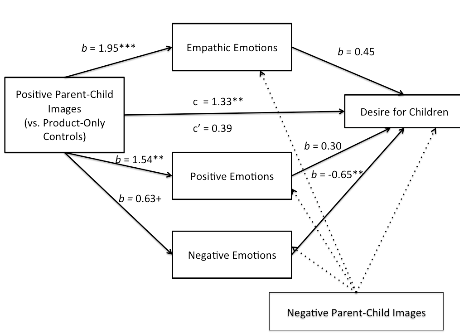
|  |  |  |
| --- | --- | --- |
| **Adult with Child** | **Adult Only Control** | **Product Control** |
| Macintosh HD:Users:Lisa:Dropbox:Parent Child - Project with Katie Nelson:Ads for Project with Katie:Parent Child Ads H - Qualtrics sized:pcSunglasshut.jpg | Macintosh HD:Users:Lisa:Dropbox:Parent Child - Project with Katie Nelson:Ads for Project with Katie:Parent Child Ads H - Qualtrics sized:adultSunglassHut.jpg | Macintosh HD:Users:Lisa:Dropbox:Parent Child - Project with Katie Nelson:Ads for Project with Katie:Parent Child Ads H - Qualtrics sized:conSunglasshut.jpg |
| Macintosh HD:Users:Lisa:Dropbox:Parent Child - Project with Katie Nelson:Ads for Project with Katie:Parent Child Ads H - Qualtrics sized:pcSunchips.jpg | Macintosh HD:Users:Lisa:Dropbox:Parent Child - Project with Katie Nelson:Ads for Project with Katie:Parent Child Ads H - Qualtrics sized:adultSunchips.jpg | Macintosh HD:Users:Lisa:Dropbox:Parent Child - Project with Katie Nelson:Ads for Project with Katie:Parent Child Ads H - Qualtrics sized:conSunchips.jpg |
| Macintosh HD:Users:Lisa:Dropbox:Parent Child - Project with Katie Nelson:Ads for Project with Katie:Parent Child Ads H - Qualtrics sized:pcChampion.jpg | Macintosh HD:Users:Lisa:Dropbox:Parent Child - Project with Katie Nelson:Ads for Project with Katie:Parent Child Ads H - Qualtrics sized:adultChampion.jpg | Macintosh HD:Users:Lisa:Dropbox:Parent Child - Project with Katie Nelson:Ads for Project with Katie:Parent Child Ads H - Qualtrics sized:conChampion.jpg |
| Macintosh HD:Users:Lisa:Dropbox:Parent Child - Project with Katie Nelson:Ads for Project with Katie:Parent Child Ads H - Qualtrics sized:pcCampbells.jpg | Macintosh HD:Users:Lisa:Dropbox:Parent Child - Project with Katie Nelson:Ads for Project with Katie:Parent Child Ads H - Qualtrics sized:adultCampbells.jpg | Macintosh HD:Users:Lisa:Dropbox:Parent Child - Project with Katie Nelson:Ads for Project with Katie:Parent Child Ads H - Qualtrics sized:conCambells.jpg |
| Macintosh HD:Users:Lisa:Dropbox:Parent Child - Project with Katie Nelson:Ads for Project with Katie:Parent Child Ads H - Qualtrics sized:pcQuaker.jpg | Macintosh HD:Users:Lisa:Dropbox:Parent Child - Project with Katie Nelson:Ads for Project with Katie:Parent Child Ads H - Qualtrics sized:adultQuaker.jpg | Macintosh HD:Users:Lisa:Dropbox:Parent Child - Project with Katie Nelson:Ads for Project with Katie:Parent Child Ads H - Qualtrics sized:conQuaker.jpg |

*Figure 1.* Sample advertisements used in each condition in Study 2.

*Figure 2.* Percent of participants by condition in Study 2 endorsing the forced-choice question: “Do you want to have children?”

|  |  |  |
| --- | --- | --- |
| **Positive** | **Negative** | **Control** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

*Figure 3.* Sample advertisements used in each condition in Study 3 and Study 4.



*Figure 4.* Mediation models (Study 4) predicting desire for children via empathic emotions, positive emotions, and negative emotions, relative to product-only controls (top) and negative parent-child images (bottom).