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(Not) Bringing up Baby: The Effect of Jealousy on Men's and Women's Parenting Interest and  
Investment Expectations

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### Abstract

The current research uses insights from evolutionary psychology and social cognition to explore the relationship between jealousy – both experimentally activated and chronically accessible – on men’s and women’s desire to start a family and invest in children. In our first two studies, primed infidelity threat led chronically jealous men and women to report a decreased interest in infants (Study 1) and decreased happiness upon receiving pregnancy news (Study 2) relative to controls. Study 3 demonstrated sex-differentiated effects of jealousy on men’s and women’s desired level of parental investment, with infidelity threat decreasing desired investment among chronically jealous men – but not women. Results provide novel empirical support for the hypothesis that jealousy functions to attenuate the reproductive costs associated with partner infidelity.

*Keywords:* jealousy, infidelity, interest in infants, parental investment, reproduction

(Not) Bringing up Baby: The Effect of Jealousy on Men's and Women's Parenting Interest and Investment Expectations

For many couples, receiving the news that they are expecting their first child is a thrilling experience. The period that follows is often marked by a flurry of activity aimed at preparing their lives for the arrival of their newest family member. Whether researching names, decorating the nursery, or registering for baby gifts, pregnancy can be a period of great emotional closeness and intimacy for expectant parents (Lips & Morrison, 1986). However, imagine for a moment how this experience might change if one member of the couple suspected that their partner was romantically involved with someone else. The joy and excitement of starting a family would likely be eclipsed by anxiety and uncertainty about the future. For women, this anxiety would likely be rooted in the possibility of losing investment of precious resources – including money, time, and emotional support – from her partner. Will her partner abandon her for his lover, leaving her to care for their child alone? For men, this anxiety would likely be rooted in the fear of compromised paternity. If his partner is involved with someone else, how can he be sure that he is really the father of this unborn child?

It is difficult to imagine a context in which the possibility of a romantic partner's infidelity is potentially more costly than in the domain of reproduction and childcare. Indeed, evolutionary theorists have hypothesized that jealousy - the unpleasant psychological arousal that generally occurs in response to infidelity threat – owes its existence to having helped circumvent these costs over evolutionary time (see e.g., Buss, Larsen, Westen, & Semmelroth, 1992; Daly, Wilson, & Weghorst, 1982; Symons, 1979). Despite the ultimate linkage between jealousy and infidelity being borne in the context of reproductive outcomes, little research has yet been conducted examining whether jealousy has implications for men's and women's reproductive

and parenting psychologies (see Shackelford, Weekes-Shackelford, & Schmitt, 2005, for an exception). Here, we begin to redress this gap in the literature using theoretical insights from evolutionary psychology and social cognition. Our integrative approach predicts that jealousy – both experimentally primed and chronically accessible – should have important implications for men’s and women’s desire to have children and subsequent investment in their care and welfare. By demonstrating the effects of jealousy on men’s and women’s parenting psychology, the current research provides novel support for the hypothesis that jealousy – although psychologically painful – may serve important adaptive functions.

### **Infidelity as an Adaptive Problem**

Despite the general expectation of monogamy within a marriage (Wiederman & Allgeier, 1996), research indicates that as many as 34% of married men and 19% of married women report having engaged in extramarital sex at some point in their marriage (Allen, Atkins, Baucom, Snyder, Gordon, & Glass, 2005; Wiederman, 1997). The discovery that a romantic partner has been unfaithful is predictive of a number of undesirable outcomes for the dyad itself and for the partners of the unfaithful. Infidelity remains the most commonly cited reason for divorce (Amato & Previti, 2003) and is predictive of low relationship quality and emotional closeness for those couples who stay together (Previti & Amato, 2004). Additionally, spouses of unfaithful partners commonly report anxiety, depression, suicidal ideation, and symptoms similar to posttraumatic stress disorder (Cano & O’Leary, 2000; Gordon, Baucom, & Snyder, 2004).

From an evolutionary perspective, a partner’s infidelity is as adaptively costly as it is psychologically painful. For men, infidelity on the part of their romantic partner opens up the possibility that they are not the biological father of children borne from their mate (i.e., cuckoldry). Such an outcome is tremendously costly to men’s reproductive success, as it could

lead a man to unknowingly invest his time, energy, and other resources into children that are not biologically his own (Trivers, 1972). This problem is particularly substantial in humans, as men invest a great deal of love, care, and support in their children at the cost of pursuing additional reproductive opportunities (Alexander & Noonan, 1979). Although women do not face the problem of compromised maternity from infidelity, they too can experience diminished reproductive success as a result of their partner's infidelity. For women, an unfaithful partner increases the likelihood of losing critical resource investment for her and her unborn child, an outcome that could potentially mean the difference between life and death for herself and her offspring (Buss, 1988; Schützwohl, 2008; Thornhill & Alcock, 1983).

### **Jealousy as an Adaptive Solution to the Costs of Infidelity**

Given the substantial fitness-relevant costs associated with a romantic partner's infidelity, evolutionary psychologists have hypothesized that the emotion of jealousy may be an adaptation shaped by natural selection to help mitigate these costs (e.g., Buss, 1988; Buss et al., 1992; Daly & Wilson, 1988; DeKay & Buss, 1992). On this view, the unpleasant emotional arousal evoked by romantic relationship threats functions to alert individuals to the possibility of their partner's infidelity and prompt remediating action (see e.g., Buss, 2000). For men, who have reliably confronted the problem of paternity uncertainty over evolutionary time, the primary function of jealousy is thus hypothesized to be circumventing investment in biologically unrelated offspring. For women, on the other hand, the primary function of jealousy is hypothesized to be circumventing the loss of resource investment in her and her children (see e.g., Buss et al., 1992; Buss et al., 1999; Buunk, Angleitner, Oubaid, & Buss, 1996; Daly et al., 1982; Edlund, Heider, Scherer, Fare, & Sagarin, 2006; Jones, Figueredo, Dickey, & Jacobs, 2007; Pietrzak, Laird, Stevens, & Thompson, 2002; Schützwohl, 2004, 2005, 2008; Schützwohl & Koch, 2004;

Shackelford, Voracek, Schmitt, Buss, Weekes-Shackelford, & Michalski, 2004; Strout, Laird, Shafer, & Thompson, 2005; Symons, 1979).

Empirical support for the hypothesis that jealousy functions to mitigate the reproductive costs associated with infidelity has been found primarily in research exploring sex differences in responses to sexual versus emotional infidelity. In particular, researchers have found that men tend to be more upset by cues to sexual infidelity – an effect predicted due to its greater link with paternity uncertainty. In contrast, women tend to be more upset by potential emotional infidelity – an effect predicted due to its greater link with loss of partner investment (see e.g., Buss, Larsen, Westen, & Semmelroth, 1992; Buss & Shackelford, 1997; Buss et al., 1999; Daly, Wilson, & Weghorst, 1982; Symons, 1979). Because the ultimate associations between jealousy and infidelity are borne in the domain of reproduction, however, an evolutionary approach also predicts that the experience of jealousy should have important implications for men's and women's parenting psychology. First, because this emotion signals a threat to the integrity of one's romantic relationship, experiencing jealousy should decrease both men's and women's reproductive readiness and desire to have a baby. Second, because jealousy is associated with the threat of compromised paternity, but not maternity, jealousy should exert sex-differentiated effects on men's and women's desired level of parental investment in an expectant child.

The effect of experimentally induced jealousy on men's and women's parenting psychology is reasoned to be influenced not only by the costliness of jealousy to one's reproductive success, as predicted from an evolutionary psychological perspective. From a social cognitive perspective, we also expect that the effects of jealousy on parenting should be moderated by individual differences in the accessibility of schemas associated with a partner infidelity. Some individuals, particularly those who are chronically jealous, tend to be

consistently preoccupied by the threat of infidelity and regularly experience fear that their partner might be involved with someone else (Easton, Schipper, & Shackelford, 2007; Maner, Miller, Rouby, & Gailliot, 2009). Accordingly, although the ultimate cost of infidelity is the same for all men and women (comprised reproductive success), for chronically jealous individuals, the perceived threat of infidelity is particularly salient and distressing.

Previous research has noted the interactive effects of chronic jealousy and manipulated infidelity threat. For example, across four studies, researchers found that priming infidelity concerns using a jealousy prompt increased cognitive processing of attractive same-sex mating competitors only among those men and women high in chronic jealousy (Maner et al., 2009). Extending this to the current investigation, we predicted that the effects of jealousy on men's and women's parenting psychology would occur specifically among those individuals for whom the threat of infidelity is the most salient – chronically jealous men and women. For men and women who do not tend to worry about infidelity (i.e., individuals low in chronic jealousy), however, we predicted that activated feelings of jealousy would have a negligible effect on parenting psychology.

### **The Current Research**

In the following, we present the results from three experiments in which we explicitly tested the relationship between jealousy – both experimentally primed and chronically activated – and men's and women's parenting psychology. In our first experiment, we tested the effect of experimentally activated jealousy on men's and women's interest in infants, a measure of reproductive readiness (Goldberg, Blumberg, & Kriger, 1982; Maestripieri, Roney, DeBias, Durante, & Spaepen, 2004). We predicted that chronically jealous men and women would exhibit diminished interest in infants in response to the prime compared to controls. In our

second experiment, we sought to conceptually replicate the results obtained in Study 1 using a more direct measure of participants' desire to have children: self-reported happiness upon learning that they and their romantic partner are expecting their first child. In our last experiment, we tested the effect of experimentally activated jealousy on desired parental investment, an effect that we predicted would be sex differentiated. Because jealousy indicates a potential threat to paternity – but not maternity – we predicted that activating this emotional state would lead chronically jealous men, but not women, to report a diminished desire to invest parental resources in rearing a child with their partner.

### **Study 1: Does Jealousy Influence Men's and Women's Interest in Infants?**

In Study 1, we tested the hypothesis that jealousy would lead men and women to experience a diminished desire to reproduce. We measured reproductive interest using the interest in infants inventory, an index of individual reproductive readiness (Goldberg et al., 1982; Maestriperi et al., 2004). Jealousy is believed to function by alerting its bearer to the possibility of infidelity in a romantic relationship. We therefore predicted that experiencing jealousy would dampen interest in reproduction for both sexes because a mate's potential infidelity compromises both paternity certainty (for men) and expected paternal investment (for women). Specifically, we tested the prediction that priming infidelity concerns would decrease interest in infants among men and women high in chronic jealousy.

### **Method**

**Participants.** One hundred and twenty-one heterosexual university students (64 female;  $M_{age} = 19.51$ ,  $SD = 1.37$ ) served as participants in this study (58 in the jealousy condition) in exchange for course credit.



**Design and procedure.** Participants came into a research laboratory in small groups and were seated at individually partitioned computers. Participants were randomly assigned to write about a time that they had experienced romantic jealousy in a relationship or about a time that they had experienced a serious academic failure. Participants then completed the interest in infants inventory and the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). The session ended with participants filling out a brief questionnaire that included demographic information as well as a measure of chronic jealousy. A suspicion probe conducted at the end of the study revealed that no participants guessed the nature of the hypothesis under investigation.

**Priming procedure.** We used a written guided imagery procedure similar to that used by Maner et al. (2007, 2009) in which an emotional state is activated through a writing exercise. Participants in the experimental condition were asked to write about three occasions when they felt romantically jealous and were concerned about their partner's possible infidelity . Participants in the control condition were asked to write about three times that they experienced a serious academic failure. This control was chosen because previous research indicates that it elicits comparable levels of negative affect and arousal as writing about jealousy (Maner et al., 2009). Participants in both conditions were then prompted to write in detail about the most distressing of these occasions for five minutes.

To ensure that the jealousy prime elicited significantly more jealousy than the control prime, an independent group of undergraduate students (60 men and 60 women) underwent the priming procedure (58 in the jealousy condition). After being randomly assigned to complete the jealousy or control prime, participants rated how jealous, upset, distressed, ashamed, nervous, irritable, hostile, afraid, sad, and frustrated they felt on Likert-type scales ranging from 1 (*not at*

*all*) to 7 (*extremely*). Results confirmed that, compared to participants in the control condition ( $M = 3.17$ ,  $SD = 1.74$ ), participants in the jealousy condition experienced significantly higher levels of jealousy ( $M = 5.75$ ,  $SD = 1.57$ ),  $F(1, 111) = 68.08$ ,  $p < .001$ ,  $d = 1.56$ . In addition, participants in the jealousy condition also reported greater hostility,  $F(1, 111) = 4.32$ ,  $p = .04$ ,  $d = .39$ , relative to participants in the control condition, although this increase was relatively small compared to the increase in jealousy. Control participants, on the other hand, reported being more distressed [ $F(1, 111) = 5.55$ ,  $p = .02$ ,  $d = .44$ ], ashamed [ $F(1, 111) = 10.37$ ,  $p = .002$ ,  $d = .61$ ], nervous [ $F(1, 111) = 7.53$ ,  $p = .007$ ,  $d = .51$ ], and afraid [ $F(1, 111) = 9.51$ ,  $p = .003$ ,  $d = .58$ ] than participants in the jealousy condition. There were no significant differences in the degree of upset, irritability, sadness, or frustration evoked by the primes ( $ps > .47$ ).

***Interest in Infants.*** To assess interest in infants, participants were presented with an abbreviated version of a visual preference measure used in previous research (e.g, Maestripieri & Pelka, 2002; Maestripieri et al., 2004)<sup>1</sup>. In this measure, participants are presented with pairs of images – color photographs of adult faces matched with infant faces – and then asked to indicate which they prefer (see Maestripieri & Pelka, 2002, for a description of the stimuli). The five experimental photos consisted of human adult faces paired with an infant counterpart; the five control pairs consisted of adult animal faces paired with their infant counterpart. These control images were included to test whether the predicted effects of jealousy on interest in infants is specific to human infants, or whether they reflect a more general preference for neotenous faces. Reliability for the number of infant human and animal faces chosen was similar to that found in previous research ( $\alpha s \geq .74$ ).

***PANAS.*** After completing the measure of reproductive interest, participants were asked to fill out the Positive and Negative Affect Schedule (PANAS; Watson et al., 1988), a 20-item

self-report measure of positive and negative affect. This scale was chosen because of its demonstrated reliability and validity (see e.g., Crawford & Henry, 2004). Participants' responses to these questions allowed us to test whether changes in affect – as opposed to jealousy, specifically, activated in response to our prime – impacted men's and women's reproductive interests.

**Chronic jealousy.** Individual differences in chronic jealousy were measured using the eight-item Emotional Jealousy subscale from Pfeiffer and Wong's (1989) Multidimensional Jealousy Scale. Participants were asked to think about a current or past romantic relationship partner and to indicate the extent to which they would feel upset (scale endpoints: 1 = *very pleased*, 7 = *very upset*) by a number of ambiguous events involving their partner (e.g., "Your partner works very closely with a member of the opposite sex at school or their office"). A composite chronic jealousy score was created by averaging participants' responses to each of these items ( $\alpha = .84$ ). Higher scores indicate higher levels of chronic jealousy and greater concern with the threat of infidelity on the part of one's romantic partner.

## Results

**Positive and negative affect.** First, to determine whether priming condition and chronic jealousy interact to influence participants' affect and arousal, we examined the effects of these variables on participants' positive and negative affect scores. The results of this analysis revealed no main effect of condition ( $ps = .42$  and  $.10$ ), chronic jealousy ( $ps = .50$  and  $.18$ ), nor any interactions between the two ( $ps = .41$  and  $.77$ ) on either positive or negative affect, respectively. These results indicate that the experimental and control primes elicited comparable levels of positive and negative affect; therefore, these variables were not included as covariates in the following models.

**Interest in infants.** We used multiple regression to test our predictions. In two analyses, interest in infants scores (human and animal) were regressed on priming condition, chronic jealousy, participant sex, and all centered interactions. Although we did not observe a three-way interaction between participant sex, priming condition, and chronic jealousy on participants' interest in human infants ( $\beta = .16, p = .31$ ), we did observe the predicted two-way interaction between priming condition and chronic jealousy when participant sex was dropped from the model,  $\beta = .27 (SE = .34), t(6, 114) = 2.30, p = .02$ , semipartial  $r^2 = .04$  (see Table 1 for descriptive statistics). As predicted, among men and women high in chronic jealousy (1 *SD* above the mean) the jealousy prime led to diminished interest in human infants relative to participants in the control condition,  $\beta = .27 (SE = .34), t(4, 116) = 2.15, p = .03$ , semipartial  $r^2 = .04$  (see Figure 1). We did not observe a priming effect for those low in chronic jealousy, however ( $\beta = -.17, p = .16$ ). Further, analyses conducted on participants' interest in animal infants revealed neither a three-way interaction between participant sex, priming condition, and chronic jealousy on this measure ( $\beta = .11, p = .48$ ), nor a two-way interaction between priming condition and chronic jealousy ( $\beta = .06, p = .74$ ). The effect of jealousy on interest in infants was therefore specific to human infants and did not lead to a diminished interest in neonous faces more generally.

---Figure 1 about here---

## Discussion

The results of Study 1 demonstrated that infidelity concerns led chronically jealous men and women to report a diminished interest in infants. That this effect was observed exclusively among those individuals who tend to worry about relationship threats is consistent with past research and lends support for the hypothesis that the effects of jealousy on reproductive

readiness are specific to those individuals for whom such a threat is most distressing (Maner et al., 2007, Maner et al., 2009). Further, our results revealed that this shift was specific to human infants, as there were no differences in men's and women's preference for infant (versus adult) non-human animals. This result minimizes the possibility that infidelity threat influences people's preference for mature versus neotonous features, more generally.

The results of Study 1 provide experimental support for the hypothesis that jealousy may have implications for men's and women's reproductive readiness, specifically among individuals who are most worried about relationship threats (i.e., highly jealous individuals). However, because of the forced-choice nature of the interest in infants measure, it is possible that the observed pattern of results reflects chronically jealous men and women being *more* interested in adults following infidelity threat rather than being *less* interested in infants. Indeed, prior research has demonstrated that priming infidelity concerns leads chronically jealous individuals to increase attention to attractive mates and rivals (Maner et al., 2007, 2009). Accordingly, Study 2 was designed to conceptually replicate the pattern of results obtained in Study 1 using a more direct measure of participants' desire to start a family: self-reported happiness upon learning that they are about to become a parent. We predicted that experimentally activating jealousy would lead chronically jealous men and women to report less happiness upon learning that they and their romantic partner are expecting their first child compared to controls.

### **Study 2: Does Jealousy Influence Men's and Women's Responses to Pregnancy?**

#### **Method**

**Participants.** One hundred and eight heterosexual university students (51 female;  $M_{age} = 19.47$ ,  $SD = 1.23$ ) served as participants in this study (56 in the jealousy condition) in exchange for course credit.

**Design and procedure.** The design and procedure were the same as Study 1 except that instead of using a visual preference measure to assess participants' interest in infants, we asked men and women to imagine that they and their romantic partner recently found out that they were expecting their first child. Participants were then asked to indicate how happy they would be upon receiving this news on a 9-point rating scale (anchors: 1 = *Very Unhappy*, 9 = *Very Happy*).

## Results

We used multiple regression to test our predictions, regressing self-reported happiness about pregnancy on priming condition, chronic jealousy, participant sex, and all centered interactions. Although we did not observe a three-way interaction between participant sex, priming condition, and chronic jealousy ( $\beta = -.18, p = .25$ ), we did observe the predicted two-way interaction between priming condition and chronic jealousy on participants' responses to pregnancy news,  $\beta = .41$  ( $SE = .49$ ),  $t(6, 101) = 3.42, p = .001$ , semipartial  $r^2 = .10$  (see Table 2 for descriptive statistics). As predicted, among individuals high in chronic jealousy (1 *SD* above the mean), the jealousy prime led to diminished happiness about the news that they and their partner were expecting their first child relative to participants in the control condition,  $\beta = .49$  ( $SE = .39$ ),  $t(3, 104) = 3.60, p < .001$ , semipartial  $r^2 = .11$  (see Figure 2). However, we did not observe a priming effect among individuals low in chronic jealousy ( $\beta = -.19, p = .16$ ).

---Figure 2 about here---

## Discussion

The results of Study 2 replicated the specific pattern of results obtained in Study 1. Among individuals high in chronic jealousy, infidelity threat led to decreased happiness in response to learning that one was expecting his or her first child. As with Study 1, the effect of jealousy on participants' reactions to pregnancy news was only observed among those most

concerned with relationship threats (i.e., individuals high in chronic jealousy). Taken together, these studies provide consistent evidence that concerns about infidelity lead those most chronically worried about such a threat to experience psychological changes that diminish their current desire for children.

### **Study 3: Does Jealousy Influence Men's Desire to Invest in Children?**

Study 3 was designed to explore the effect of jealousy on men's and women's desire to invest in a child of their own. Although the experience of jealousy was hypothesized to diminish both men's and women's interest in having a baby (demonstrated by decreased interest in infants and less happiness regarding pregnancy news), the reasons underlying these effects are likely sex-differentiated. For women, the primary cost associated with reproduction in the face of an infidelity threat is that of being abandoned by their mate and left to raise the child on their own. For men, however, the primary cost associated with reproduction in such a context is heightened paternity uncertainty (Buss et al., 1992; Daly et al., 1982; Symons, 1979; Trivers, 1972). Accordingly, we hypothesized that jealousy would decrease men's, but not women's, desire to invest in a child because infidelity threat makes such investment more potentially costly for men, but not for women. We tested this hypothesis using the same priming procedure as Studies 1 and 2. We then asked participants to indicate how much time they would ideally spend performing 22 duties related to childcare (e.g., holding the child, reading to the child) relative to their partner. We predicted that exposure to the infidelity prime would cause chronically jealous men – but not women – to prefer investing relatively less effort in childcare compared to men in the control condition.

### **Method**

**Participants.** One hundred and sixteen heterosexual university students (61 female;  $M_{age} = 19.42$ ,  $SD = 1.23$ ) served as participants in this study (55 in the jealousy condition) in exchange for course credit.

**Design and procedure.** The design and procedure were the same as the previous two studies except that following the priming procedure, participants were asked to imagine they were expecting a child with their romantic partner and to indicate how much time they would like to spend performing 22 activities related to child care. The experiment closed with participants filling out a brief questionnaire that included demographic information as well as the measure of chronic jealousy. A suspicion probe at the end of the study revealed that no participants guessed the nature of the hypothesis under investigation.

**Dependent measures.** Participants were asked to imagine that they and their romantic partner recently found out that they were expecting their first child. They were asked to indicate how much time they would like to spend (relative to their partner) performing 22 tasks related to childcare (e.g., holding the child, singing to the child, baby-proofing the home; see Table 3 for a list of activities). Participants indicated their preferences on 6-point rating scales (anchors: 1 = *My partner should do this most of the time*, 6 = *I should do this most of the time*). A composite measure was created by averaging participants' responses to each of the 22 items ( $\alpha = .94$ ), and higher values correspond to greater willingness to invest in one's child (relative to one's partner).

## Results

We used multiple regression to test of our predictions, regressing desired parental investment on priming condition, chronic jealousy, participant sex, and all centered interactions. Results revealed the predicted three-way interaction between priming condition, chronic jealousy, and participant sex on desired parental investment,  $\beta = .27$  ( $SE = .38$ ),  $t(7, 108) = 1.89$ ,



$p = .06$ , semipartial  $r^2 = .02$  (see Table 4 for descriptive statistics). Although marginally significant, we probed this interaction by splitting the file by sex and running the analysis again within each sex (after dropping sex as a predictor). For women, the analysis failed to reveal a main effect of priming condition on desired parental investment ( $\beta = -.01, p = .93$ ) or an interaction between priming condition and chronic jealousy ( $\beta = -.06, p = .72$ ; see Figure 3). For men, however, the analysis revealed the predicted two-way interaction between priming condition and chronic jealousy on desired level of parental investment,  $\beta = .37$  ( $SE = .28$ ),  $t(3, 51) = 2.22, p = .03$ , semipartial  $r^2 = .08$ . Among men high in chronic jealousy (1 *SD* above the mean), the jealousy prime decreased their desire to invest in a soon-to-arrive child relative to men in the control condition,  $\beta = .38$  ( $SE = .30$ ),  $t(3, 51) = 1.99, p = .05$ , semipartial  $r^2 = .07$  (see Figure 4). We did not observe a priming effect for men low in chronic jealousy, however ( $\beta = -.19, p = .29$ ).

---Figures 3 and 4 about here---

## Discussion

Study 3 provided further support for our evolutionary-based hypothesis regarding the relationship between jealousy and parenting psychology, revealing an important sex difference in the effect of jealousy on men's and women's desired level of parental investment. For women, priming jealousy had no effect on their desire to invest in children, nor did the jealousy prime interact with chronic jealousy to influence investment desires. This result is consistent with the evolutionary logic of our model. For women, maternity is always certain. Therefore, although infidelity threat renders women more vulnerable to loss of their mates' paternal investment, it should not influence their willingness to invest resources in genetic offspring.

For men, on the other hand, the current study revealed a pattern of results nearly identical to that obtained in Studies 1 and 2. Among chronically jealous men, primed infidelity threat resulted in a diminished desire to invest effort in the love and care of an unborn child. This finding is consistent with the evolutionary logic of parental investment theory (Trivers, 1972) and the hypothesis that jealousy may function to mitigate the reproductive costs associated with partner infidelity (Buss, 2000). For men, jealousy signals a potential threat to paternity. Accordingly, if jealous feelings are salient when a man learns that his mate is expecting a child, parental investment theory predicts that men should down-regulate parental effort to diminish the fitness costs associated with misdirected parental investment due to paternity uncertainty. This result is consistent with previous research indicating that men calibrate their parental investment decisions based on resemblance cues in infant faces (Platek, Critton, Burch, Frederick, Myers, & Gallup, 2003; Platek et al., 2004).

### **General Discussion**

From an evolutionary perspective, infidelity is as adaptively costly as it is psychologically painful. This cost is particularly pronounced in the context of pregnancy and child-rearing. For men, infidelity on the part of their partner opens up the possibility that they are not the biological father of children borne from their mate (i.e., cuckoldry). For women, an unfaithful partner increases the likelihood of losing critical male resource investment, an outcome that could potentially mean the difference between life and death for her and her children (Buss, 1988; Schützwohl, 2008; Thornhill & Alcock, 1983). Given that the most substantial costs of infidelity are borne in the domain of pregnancy and parental investment, we sought to explore the relationship between infidelity threat, chronic jealousy, and men's and women's parenting psychology.

Across three experiments, we found evidence that jealousy – the unpleasant psychological arousal that occurs in response to infidelity threat – plays an important role in men’s and women’s parenting interest and investment decisions. Studies 1 and 2 revealed that experimentally activating jealousy led chronically jealous men and women to experience a diminished desire for children. This effect manifested itself both as diminished interest in infants (Study 1) and decreased happiness in response to pregnancy news (Study 2). These findings are consistent with the view that perceived infidelity threat in a relationship may facilitate psychological shifts that favor delaying reproduction until such a time that one can be more certain of their paternity (men) or reliability of paternal investment (women). Study 3 revealed that infidelity concerns also have implications for men’s, but not women’s, desired level of parental investment. Specifically, chronically jealous men, but not women, responded to the threat of infidelity by reporting diminished desire to invest in a future child. This sex-differentiated effect was predicted based on the evolutionary logic of parental investment theory (Trivers, 1972) and lends further support for jealousy being sex-differentiated in ways that are specific to the adaptive problems that have reliably confronted men and women threatened by infidelity (Buss et al., 1992; Buss & Shackelford, 1997).

The current research also revealed that the effect of experimentally-induced jealousy on participants’ parenting psychology was influenced not only by the fitness-relevant costs associated with infidelity, as predicted from an evolutionary perspective. In addition, our results were moderated in important ways by individual differences in the accessibility of schemas associated with partner infidelity. Specifically, primed infidelity threat only diminished parenting interest among individuals for whom the threat of infidelity was particularly salient. No effects were observed, however, among those relatively less threatened by infidelity cues. These results

are consistent with previous findings (e.g., Maner et al., 2009) and contribute to the growing body of research demonstrating that individual responses to proximal adaptive challenges are influenced in theoretically meaningful ways by chronic accessibility of social schemas (see e.g., Griskevicius, Tybur, Delton, & Robertson, 2011; Schaller, Park, & Mueller, 2003).

Taken together, the results of the current research demonstrate that jealousy – both chronically accessible and experimentally activated – may play an important role in modulating individuals' parenting and parental investment decisions. When men and women perceive a threat to the integrity of an existing romantic relationship, this experience may activate psychological processes aimed at mitigating the costs associated with a partner's infidelity, including diminishing one's desire to reproduce and, for men, diminishing one's desired level of parental effort. These results lend support for the evolutionary hypothesis that jealousy functions to mitigate the reproductive costs associated with partner infidelity (e.g., Buss et al., 1992; Daly et al., 1982; Symons, 1979) and add to a growing body of research on evolution and the emotions (Ackerman et al., 2006; Buss, 2000; Griskevicius, Goldstein, Mortensen, Sundie, Cialdini, & Kenrick, 2009; Hill, DelPriore, & Vaughan, 2011; Maner et al., 2007; Maner et al., 2005; Maner et al., 2009; Ohman & Mineka, 2001), parental investment (Platek et al., 2003, Platek et al., 2004), and behavior (e.g., Griskevicius, Cialdini, & Kenrick, 2006; Kenrick, Griskevicius, Neuberg, & Schaller, 2010; Miller & Maner, 2010; Ronay & von Hippel, 2010; Van Vugt & Spisak, 2008).

### **Limitations and Future Directions**

One unanticipated result that emerged across all three experiments was that in the control condition, there was a positive association between chronic jealousy and reproductive interests (Studies 1 and 2) and desired parental investment (Study 3). Although this association was not

predicted in advance, it is possible that this result reflects chronic jealousy varying both within and between individuals as a function of reproductive readiness. That is, it is possible that the desire to begin having children and start a family may itself increase chronic jealousy due to the high level of commitment required by one's partner in the context of reproduction. For individuals who are ready to start a family, the costs associated with a partner's infidelity are much greater than for those who are less ready to do so. This explanation is consistent with the idea that jealousy functions as a commitment device (Buss, 2000; Frank, 1988) and suggests that chronic infidelity concern may vary more generally across the lifespan based on the costliness of such infidelity. Future research is needed to test this possibility.

An important limitation of the current research is that we relied exclusively on self-report questionnaires rather than capturing behavioral measures associated with the desire to have children and invest in their care. This limitation was due, in part, to the difficulty of capturing such behaviors in an experimental setting. Future research on overt behavior is an important next step for this line of research. Similarly, future research would benefit from testing our hypothesis in a more diverse sample of individuals, including actual parents. All participants in the current studies were unmarried undergraduate students with relatively low levels of chronic jealousy. This limitation may have reduced our power to detect the predicted effects since our results were driven by individuals with relatively high levels of chronic jealousy. It is possible that a more diverse sample that includes more individuals with higher levels of chronic jealousy may respond to infidelity threat in an even stronger manner. Although future research is needed to examine similar effects in more diverse populations, one of the strengths and contributions of the current studies is the emergence of this robust effect even within samples of individuals with relatively low levels of chronic jealousy. Nonetheless, the current research provides novel

insights into the relationship between infidelity threat, jealousy, and men's and women's parenting interest and investment expectations.

### **Conclusion**

The birth of one's first child should be a rewarding and exciting time for expectant parents. However, jealous concern about a partner's suspected infidelity can quickly dampen a new parent's enthusiasm. The current studies suggest that infidelity concerns can decrease parenting interest and desired investment among chronically jealous men and women. These results provide evidence that jealousy – both locally and chronically activated – may function to minimize costs associated with paternity uncertainty and loss of resource investment among men and women, respectively. Further, these findings suggest that jealousy may be contextually and individually tuned to help men and women successfully confront adaptive challenges associated with child-bearing and rearing recurrently faced throughout our evolutionary past.

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## Footnote

<sup>1</sup>Although the full measure utilized by Maestriperi & Pelka (2002) included both human and animal photographs and silhouettes, their analyses revealed that only responses to the human photos were significantly correlated with two verbal measures of interest in infants (e.g., questionnaires assessing willingness to interact with – and general liking of – babies). Further, the researchers noted that photographs are more likely than sketches of silhouettes to evoke cognitive and affective responses reflecting participants' actual interest in infants. Therefore, the current study measured only participants' preference for infant (vs. adult) human photographs to assess interest in infants, whereas photographs of infant and adult animal faces were included as control stimuli to assess the specificity of our effects.

Table 1

*Descriptive Statistics (Study 1)*

	Jealousy		Control	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Chronic Jealousy	5.37	0.90	5.44	0.65
Interest in Human Infants	2.36	1.31	2.48	1.40

Table 2

*Descriptive Statistics (Study 2)*

	Jealousy		Control	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Chronic Jealousy	4.67	0.61	4.54	0.52
Happiness about Pregnancy	8.07	1.77	8.52	1.00



Table 3

*Childcare Activities (Study 3)*


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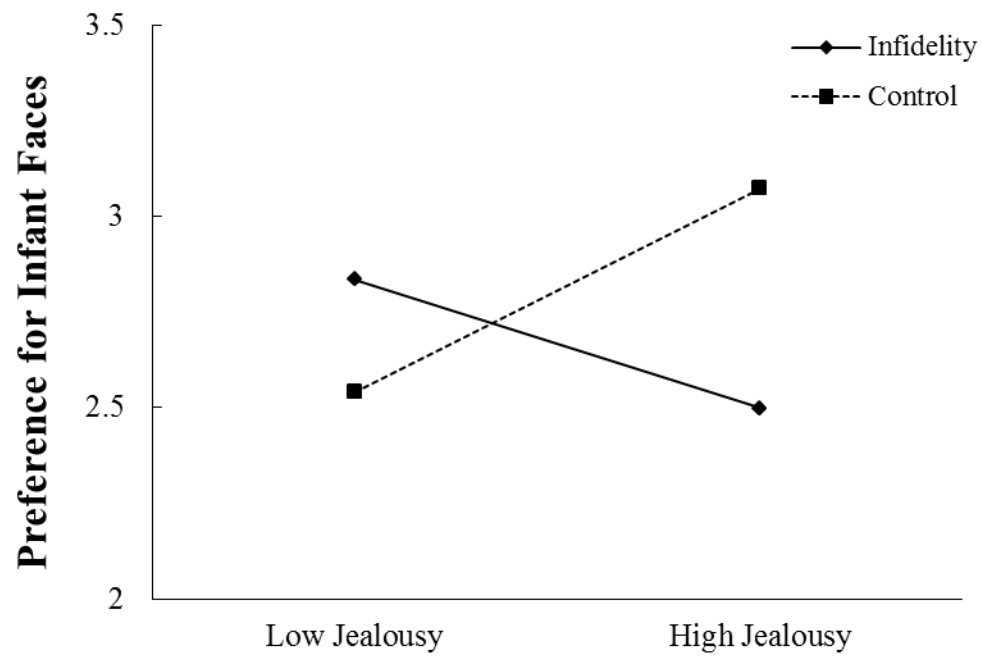
playing with the child	burping the infant after he/she eats
holding the child	baby-proofing the home
reading to the child	keeping an eye on the child around the home
feeding the child	washing the child's bottles
changing the baby's diapers	pushing the baby around in a stroller
feeding the child (via breast or bottle)	taking the baby for rides in the car
handwashing the infant's clothes/blankets	bathing the child
talking to the child	getting up at night with the child when he/she cries
singing to the child	tending to a sick child
soothing the infant to put him/her to sleep	calming the infant when he/she is upset
organize childcare arrangements for time spent away from child (e.g., at work/school)	taking time off from work/school to care for sick child

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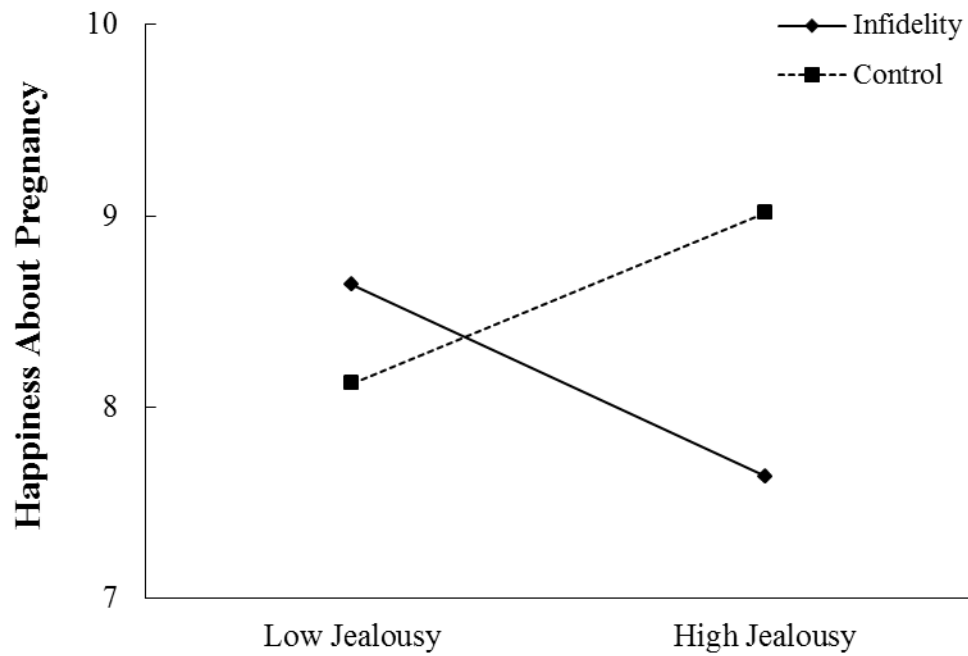
Table 4

*Descriptive Statistics (Study 3)*

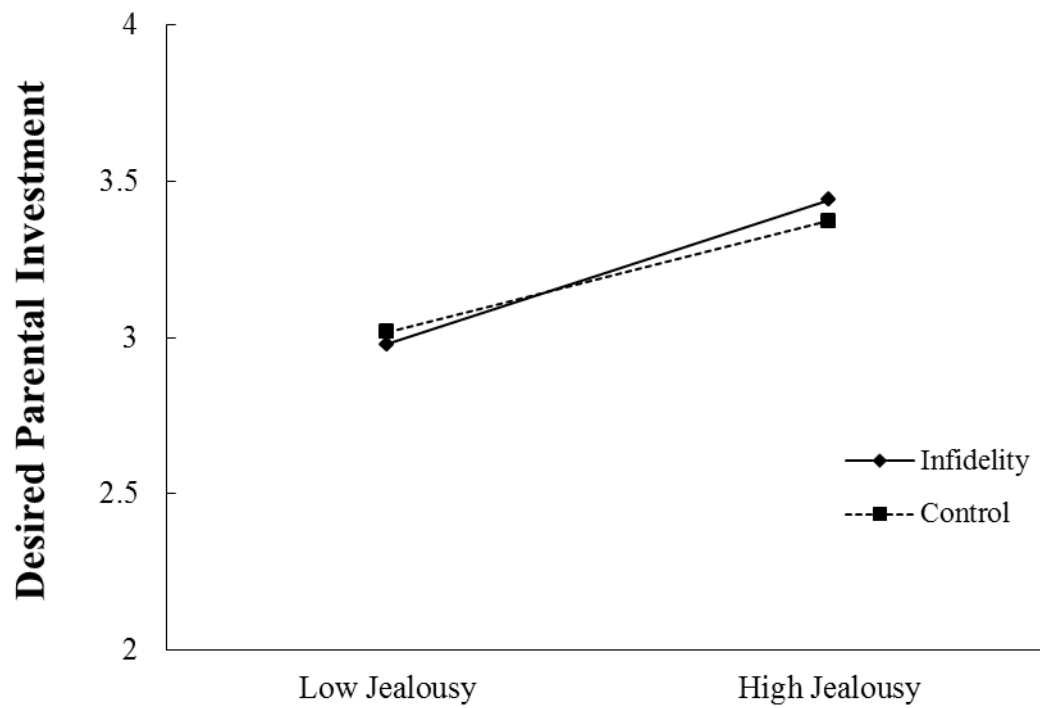
	Jealousy		Control	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Chronic Jealousy				
Men	5.24	0.85	5.42	0.65
Women	5.57	0.66	5.52	0.59
Desired Parental Investment				
Men	3.30	0.85	3.38	0.74
Women	4.32	0.63	4.28	0.61



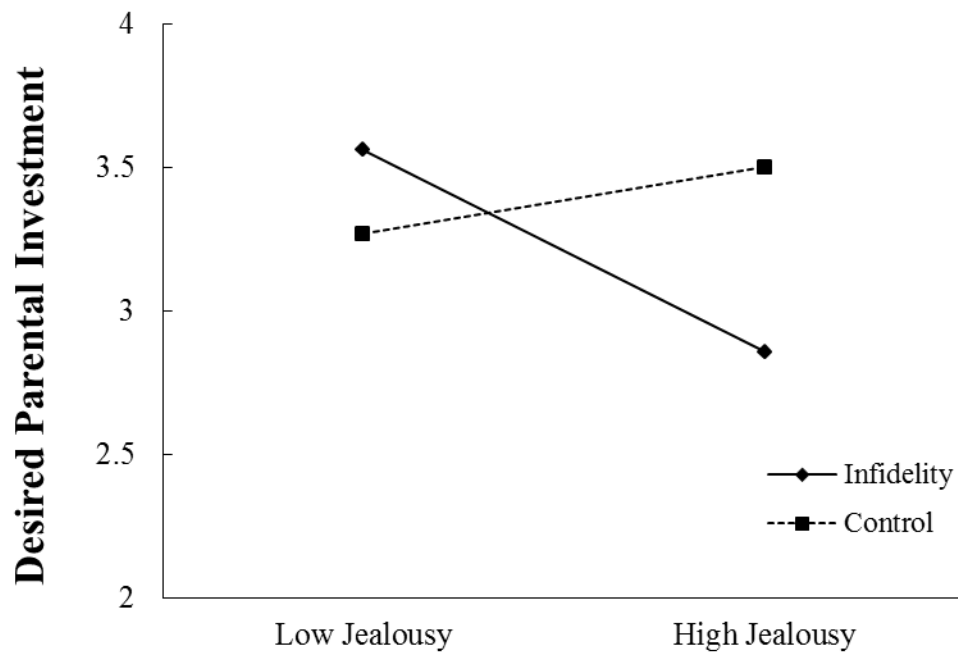
*Figure 1.* Priming infidelity threat led participants high in chronic jealousy to report less interest in human infants relative to participants in the control condition (Study 1).



*Figure 2.* Priming infidelity threat led participants high in chronic jealousy to report less happiness about expecting their first child relative to participants in the control condition (Study 2).



*Figure 3.* Effect of infidelity threat and chronic jealousy on women's desired level of parental investment (Study 3). Higher numbers correspond to greater investment.



*Figure 4.* Effect of infidelity threat and chronic jealousy on men's desired level of parental investment (Study 3). Higher numbers correspond to greater investment.