



## Research Article

Volume-02|Issue-11|2021

## Three Types of Jealousy and Their Relation to Dependency, Uncertainty and Satisfaction

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Received: 30.10.2021

Accepted: 20.11.2021

Published: 30.11.2021

**Citation**

Buunk, A. P., & Dijkstra, P. (2021). Three Types of Jealousy and Their Relation to Dependency, Uncertainty and Satisfaction. *Indiana Journal of Humanities and Social Sciences*, 2(11), 43-52.

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**Abstract** Two studies conducted in community samples of heterosexual individuals with 200 participants recruited through television (Study 1) and 199 participants recruited in trains (Study 2) examined the relationship of dependency, satisfaction, and uncertainty with different types of jealousy. Both studies assessed jealousy as measured with the typology proposed by Buunk (1997), including reactive jealousy, preventive jealousy, and anxious jealousy. Study 2 also assessed jealousy as measured with the typology of Pfeiffer and Wong (1989), including emotional, cognitive and behavioral jealousy. In both studies, reactive jealousy was most closely linked to a high dependency and a high satisfaction, and anxious jealousy was related strongest to a low satisfaction and a high uncertainty. Among women preventive and anxious jealousy were, overall, more than among men, positively related to uncertainty. In Study 2 emotional jealousy was only among women associated with more dependency and more uncertainty, whereas behavioral and cognitive jealousy were in general associated with a low dependency and a low satisfaction, and with a low satisfaction and a high uncertainty. The present findings extend past findings on romantic jealousy and underline the necessity of specifying the type of jealousy when examining the factors related to jealousy.

**Keywords:** Jealousy, Relationship Satisfaction, Uncertainty, Dependency.

**INTRODUCTION**

Jealousy can be defined as a response to a threat to or the actual loss of a romantic relationship, as a result of an actual or imagined rival vying for one's partner's attention (e.g., Barelds *et al.*, 2020; & Dijkstra & Buunk, 1998). The central goal of the present two studies was to enhance our understanding of the association of different types of jealousy with relationship satisfaction, dependency and uncertainty. The typology developed by Buunk (1997) makes a distinction between reactive, preventive and anxious jealousy. Reactive jealousy refers to the response to one's partner actual engagement in intimate behaviors with someone else, while preventive jealousy refers to efforts to prevent contact of one's partner with individuals of the opposite sex, which may even include acts of violence in an effort to limit the autonomy of their mate (Daly *et al.*, 1982; & Davis *et al.*, 2018). Finally, anxious jealousy refers to an active cognitive process in which the individual generates images of his or her mate becoming sexually or emotionally involved with someone else and experiences feelings of anxiety, suspicion, worry, distrust, and upset. In contrast to reactive jealousy, both preventive and anxious jealousy may not only be triggered in response to a partner's actual extra-dyadic involvement but also in response to a potential relationship threat.

Whereas reactive jealousy may be considered a 'normal' or 'rational' response to an actual relationship

threat, both preventive and anxious jealousy may also reflect a more pathological form of jealousy, which is triggered in the absence of such a threat. Moreover, reactive, preventive and anxious jealousy constitute a continuum ranging from more "healthy" to more "problematic" or 'unhealthy' experiences (see also Buunk *et al.*, 2020; & Dijkstra *et al.*, 2010). Because reactive jealousy constitutes a direct response to an actual relationship threat (for instance, because one's partner is kissing with someone else), reactive jealousy can be considered a relatively "healthy" response. Responding with jealousy when one's partner has been unfaithful may even be considered a sign of love and commitment (see also Barelds & Dijkstra, 2007). In contrast, both preventive and anxious jealousy may become problematic or "unhealthy" in nature as these may be triggered by an imagined rather than a real rival, and may therefore become illusory in nature (Barelds & Dijkstra, 2006; 2007; & Buunk, 1997). Illustrative is the fact that jealousy may be evoked by projecting one's own feelings and preferences on the partner (e.g., Balzarini *et al.*, 2021; & Ellis, 1996), causing individuals to think that their partner is or wants to be unfaithful, even if this is not the case at all. Especially experiences resembling anxious jealousy have been reported to be characteristic of pathologically jealous individuals (e.g., Dolan & Bishay, 1996). Preventive jealousy, on a scale from 'healthy' to 'unhealthy', can be placed between reactive and anxious jealousy. Preventive jealousy is, more than anxious jealousy, at least an attempt to preserve a valued

relationship. Evidence for the potentially unhealthy nature of anxious and preventive jealousy was found in studies that showed these types of jealousy (but not reactive jealousy) are positively related to Dark Triad traits, a trio of malevolent personality traits (narcissism, Machiavellianism, and psychopathy; Barelds *et al.*, 2020; & Barelds *et al.*, 2017). In a similar vein, van Brummen-Girigori *et al.* (2016) found that women who, as a child were abandoned by their father, as an adult experienced more anxious and preventive jealousy (but not more reactive jealousy) than women who grew up in the presence of their father.

On the basis of social exchange theory, it can be expected that individuals who are more dependent will experience more frequent and more intense jealousy because they perceive few alternatives as attractive as the current relationship (Buunk, 1991). Studies examining this hypothesis have, however, generated mixed findings. In support of the hypothesis, Hansen (1985), for instance, found that, regardless of the actual quality of their marriage, individuals who viewed themselves as having few alternatives to their present marriages were more likely to experience jealousy (see also Mathes & Severa, 1981). Other studies, however, even contradict these results. Buunk (1982) found, for instance, that, although anticipated sexual jealousy correlated substantially with dependency in a student sample and in a general population sample, it did not in a sample of promiscuous individuals. Likewise, dependency has been found only to be moderately related to jealousy among women, not men (White, 1981), and only in non-marital relationships (Bringle *et al.*, 1983).

On a conceptual level, dependency must be distinguished from relational satisfaction. This variable refers to the frequency with which individuals derive positive feelings from the relationship, for example by obtaining love and support, and by engaging in mutually rewarding outcomes, such as satisfying joint leisure activities (Rusbult & Buunk, 1993). In general, the loss of a close relationship involves great costs, including the loss of identity and self-esteem (e.g., Aron & McLaughlin-Volpe, 2001; & Mathes *et al.*, 1985). It can therefore be argued that individuals who feel satisfied with their relationship will experience more intense jealousy because they fear losing a relatively high level of rewards. Support for this hypothesis has been found by Nadler & Dotan (1992); & Mathes (1985). The latter found, for instance, that relatively jealous individuals had a more stable and successful relationship than individuals who reported low jealousy. However, jealousy has also been found to be associated with a host of negative relational outcomes, such as marital distress, divorce, and domestic violence (e.g. Barnett *et al.*, 1985; & Buss, 2000). It can therefore also be argued that jealousy lowers relational outcomes and thus relational satisfaction. Negative associations between jealousy and relational satisfaction have indeed

been reported by, for instance, Andersen *et al.* (1995); Barnett *et al.* (1985); Buunk (1991); & Shackelford & Buss (2000). However, these seemingly contradictory findings can be explained by the fact that the association between jealousy and satisfaction depends on the *type* of jealousy. Indeed, Barelds & Dijkstra (2007) found in three large community samples of heterosexuals, using three different operationalizations of relationship quality, that among both men and women, reactive jealousy was related positively to relationship quality, anxious jealousy was negatively related to relationship quality whereas preventive jealousy was unrelated to relationship quality.

Various authors have argued that not so much the level of outcomes provided by the partner is related to jealousy, but especially the degree of uncertainty over these outcomes (e.g., Berscheid & Fei, 1977). Indeed, relational uncertainty has been found to be tied inextricably to the manifestation of jealousy (Afifi & Reichert, 1996; & Knobloch *et al.*, 2001). Relational uncertainty is also implicated in several correlates of jealousy, such as relational instability and concerns about the viability of the relationship (e.g., Bush *et al.*, 1988). Uncertainty over the relationship is assumed to be related to jealousy, because it may install the fear that the partner may become attracted to someone else, risking the loss of important relationship rewards. Indeed, Parks & Adelman (1983) demonstrated that the level of uncertainty regarding a partner's behavior was a significant predictor of relationship survival. However, despite the apparent importance of uncertainty for jealousy, few studies have examined the association between both variables.

## Prédictions

In general, we expected relational satisfaction to be positively related to reactive jealousy, but negatively to anxious and preventive jealousy, although less strongly to preventive than to anxious jealousy (*Hypothesis 1*). Assuming that dependency reflects primarily a strong and positive bond with the partner, we expected dependency to be characteristic more of the more "healthy" reactive jealousy and less of preventive and anxious jealousy, respectively. Therefore, in descending order, we expected dependency to be positively related to reactive jealousy, preventive jealousy and, finally, anxious jealousy (*Hypothesis 2*). Finally, because feelings of uncertainty over a mate's fidelity may generally more characteristic of pathological forms of jealousy, it was expected that relational uncertainty would particularly be related to "problematic" types of jealousy and, thus, in descending order, to anxious jealousy, preventive jealousy and reactive jealousy (*Hypothesis 3*). Two studies were conducted to test these hypotheses. Whereas most jealousy research has been done among undergraduate students, both samples implied in the present research consisted of adults varying in age, educational level, and marital status. In addition, to enhance the external

validity of the findings, and to be able to relate the present findings to findings obtained in other studies, in Study 2 the measures developed by Pfeiffer & Wong (1989) were also included. This allowed us to assess the associations between cognitive, emotional and behavioral jealousy on the one hand, and the relationship variables on the other hand, and to compare these with the findings obtained with the typology of Buunk (1991; & 1997). In addition, correlating the scales derived from both typologies, may provide evidence for the construct validity of the more recently developed scales of Buunk.

## MATERIALS AND METHOD STUDY 1

### Sample and Procedure

Participants were recruited through an announcement on Dutch national television asking for people who would be willing to answer a questionnaire about jealousy. Participants were sent a mail questionnaire, of which most were returned. From the pool of individuals who had sent back the questionnaires, matched samples of 100 men and 100 women were selected. The samples of men and women did not differ significantly in age, religious background, educational level, length of relationship, marital status, and number of children. The ages ranged from 15 to 76 (mean age = 33, SD = 13.00). At the time of the study, 41% of the participants was married, 19% were cohabiting, and 41% had a steady relationship. The mean length of the relationship was 9 years (SD = 9.80) and 48% had children. Level of education included only elementary education (5%) lower level of high school (38%), higher level of high school (33%) and college education (25%) and 39% of the subjects were employed outside the home.

### Measures

*Dependency* was measured with a scale of three items based upon the Emotional Dependency Scale (e.g., Buunk, 1982): "I can't imagine what my life would be like without my partner", "It would be difficult for me to find any other person with whom I would be so happy as with my present partner" and "I could be happy even without my partner". Each item was assessed on a 5-point scale (1 = completely agree, 5 = completely disagree). This measure is comparable to the attractiveness of alternatives in the model of Rusbult (1983). Coefficient alpha was .59. There was no sex difference in dependency ( $M = 3.43$  vs  $M = 3.40$ ,  $t = .25$ , ns).

*Relational satisfaction* was measured by the Relational Interaction Satisfaction Scale that has been used in numerous studies. The 8 items of this scale assess to which extent the interaction with the partner is rewarding (Buunk, 1990). Examples of items are "I feel happy when I'm with my partner" and "We have quarrels." Possible answers range from: 1 = "never" to 5 = "very often". In this study, coefficient alpha was

.86. Men and women did not differ on this variable ( $M = 3.96$  vs  $M = 3.94$ ,  $t = .21$ , ns).

*Relationship uncertainty* was measured with a newly constructed five-item scale, including questions such as "How often do you wonder if your partner really loves you?" and "How often do you worry that you are not the person your partner really wants?" Items were assessed on a 5-point scale ranging from 1 = "never" to 5 = "very often"), or, in response to statements such as "I don't know where I am at in our relationship", from 1 = "completely disagree" to 5 = "completely agree". Alpha for this scale was .86. Men and women did not differ on this variable ( $M = 2.34$  vs  $M = 2.41$ ,  $t = -.49$ , ns).

*Jealousy* The three types of jealousy were measured with the scales described by Buunk (1997). Each scale consists of 5 items. *Reactive jealousy* was assessed by asking participants how upset they would feel if their partner would engage in various extra-dyadic intimate and sexual behaviors, such as having sexual contact with someone else or flirting with someone else. These items were assessed on 5-point scales, ranging from 1, "not at all upset", to 5, "extremely upset". *Preventive jealousy* was assessed by items such as "I don't want my partner to meet too many people of the opposite sex" and "It is not acceptable to me if my partner sees people of the opposite sex on a friendly basis". For each item, the five possible answers ranged from "not applicable" to "very much applicable". *Anxious jealousy* was assessed with items such as "I am concerned about my partner finding someone else more attractive than me" and "I worry about the idea that my partner could have a sexual relationship with someone else". Items could be scored on 5-point scales, ranging from 1, "never", to 5, "very often". Although men and women reported equal intensities of anxious jealousy ( $M = 2.13$  vs  $M = 2.31$ ,  $t = -1.39$ , ns), women reported higher levels of reactive ( $M = 3.99$  vs  $M = 3.67$ ,  $t = -2.37$ ,  $p < .05$ ) and preventive jealousy ( $M = 2.22$  vs  $M = 1.93$ ,  $t = -2.14$ ,  $p < .05$ ). Cronbach's alphas for the three subscales were respectively .76, .89 and .89. Correlations between the three subscales were .61 (reactive-preventive), .36 (reactive-anxious) and .67 (preventive-anxious;  $p < .001$ ).

## RESULTS STUDY 1

### Types of Jealousy Related to Relationship Satisfaction, Dependency and Uncertainty

Pearson product moment correlations between reactive, anxious and preventive jealousy on the one hand, and relationship satisfaction, uncertainty and dependency on the other hand were calculated to test our hypotheses. Because of the possibility that our hypotheses might be true for men but not for women, or vice versa, analyses were conducted separately for men and women (see Table 1).

**Table 1:** Reactive, Anxious and Preventive Jealousy Related to Relational Variables

|                     | <b>Reactive</b> | <b>Preventive</b> | <b>Anxious</b> |
|---------------------|-----------------|-------------------|----------------|
| <b>Dependency</b>   |                 |                   |                |
| Men                 | .30**           | .21*              | .13            |
| Women               | .41**           | .34**             | .25*           |
| <b>Satisfaction</b> |                 |                   |                |
| Men                 | .20*            | -.07              | -.29**         |
| Women               | -.15            | -.36**            | -.56***        |
| <b>Uncertainty</b>  |                 |                   |                |
| Men                 | .09             | .34**             | .52***         |
| Women               | .30*            | .51***            | .72***         |

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

As shown in Table 1, hypothesis 1, the prediction that relational satisfaction would be positively related to reactive jealousy, but negatively to anxious jealousy and preventive jealousy, although less strong to preventive than to anxious jealousy, was partially supported. Consistent with our assumption that, in descending order, reactive, preventive and anxious jealousy can be placed on a scale ranging from "healthy" to "problematic", among men, reactive jealousy was positively related to relational satisfaction, anxious jealousy was negatively related to satisfaction, whereas preventive jealousy was not significantly related to satisfaction. In contrast, among women relational satisfaction was negatively related to both preventive and anxious jealousy, although significantly stronger to anxious than to preventive jealousy ( $t = 3.05, p < .01$ ). Among women, reactive jealousy was not significantly related to relational satisfaction. Overall jealousy was more negatively related to relational satisfaction among women than among men.

Hypothesis 2, the prediction that dependency would be related strongest to reactive jealousy followed by preventive jealousy and, finally, anxious jealousy was partially supported (Table 1). Among men, both reactive and preventive jealousy related positively to dependency, whereas anxious jealousy did not. Although the correlation between dependency and reactive jealousy was higher than that between dependency and preventive jealousy, these correlations did not differ significantly. Among women, consistent with our expectation, dependency was, in a descending order, positively related to reactive, preventive and anxious jealousy. Although the order of the correlations was consistent with our expectation, the differences between these correlations did not reach significance ( $t's < 1.54, ns$ ).

Hypothesis 3, the expectation that relational uncertainty would be related strongest to anxious jealousy, followed by preventive jealousy and, finally, reactive jealousy, was largely confirmed (see Table 1). In women uncertainty was indeed related more strongly to anxious jealousy than to both other types ( $t's > 3.72, p's < .001$ ), and more strongly related to preventive jealousy than to reactive jealousy ( $t's > 2.55, p's < .01$ ). In men uncertainty was stronger related to anxious

jealousy than to preventive jealousy ( $t = 2.41, p < .01$ ), whereas reactive jealousy was not at all related to uncertainty. It may be noted that, overall, uncertainty was more strongly related to jealousy among women than among men. Because jealousy was among women also more clearly related to a low relational satisfaction, jealousy among women seems to be associated more with distress in the relationship than jealousy among men.

## INTRODUCTION STUDY 2

In addition to the typology of jealousy developed by Buunk (1997), in Study 2 we also included the typology of Pfeiffer & Wong (1989) that has been examined and validated in various studies. This typology makes a distinction between cognitive, emotional and behavioral jealousy. Cognitive jealousy refers to paranoid thoughts and worries about the behavior of one's partner, emotional jealousy involves feelings such as fear, anger, and sadness in response to a partner's infidelity, whereas behavioral jealousy implies actions such as spying on one's partner or rummaging through his or her belongings. These types of jealousy are assessed with the Multidimensional Jealousy Scale (MJS) (see also Brassard *et al.*, 2020; & Elphiston *et al.*, 2011). Findings on the relationship between relationship satisfaction and the three types of jealousy distinguished by Pfeiffer and Wong are rather mixed. Guerrero & Eloy (1992) found all three types of jealousy to be negatively related to relationship satisfaction. Likewise, in a study including only cognitive and emotional jealousy (but not behavioral jealousy), Bevan (2008) found both of these types of jealousy to be related negatively to relationship satisfaction. Something similar was found by Andersen *et al.* (1995) who found cognitive jealousy and relationship satisfaction to be negatively related, more so than emotional jealousy and relationship satisfaction. Different findings, however, were reported by Dandurand & Lafontaine (2014) who found cognitive jealousy to be negatively and emotional jealousy to be positively related to relationship satisfaction whereas they found behavioral jealousy to be unrelated to relationship satisfaction. Again different findings were reported by Dibello *et al.* (2015) who found negative relations between relationship satisfaction and both

cognitive and behavioral jealousy but no relation between relationship satisfaction and emotional jealousy. In sum, previous studies on relationship satisfaction and the three types of jealousy distinguished by Pfeiffer & Wong (1989) show in general negative relationships between cognitive jealousy and relationship satisfaction, and positive relationships between relationship uncertainty and both cognitive and emotional jealousy. To date, no studies have examined the relationship between behavioral jealousy and relationship uncertainty, and neither between the three types of jealousy and relationship dependency. Including the typology of Pfeiffer & Wong (1989) offers also the opportunity to provide evidence for the construct validity of the scales developed by Buunk (1997). In addition, it must be noted that previous studies on relationship uncertainty have examined only 2 of the 3 types of jealousy, that is emotional and cognitive jealousy, thus only using part of the MJS. Nevertheless, both Solomon & Brisini (2019); Theiss & Solomon (2006); & Knobloch *et al.* (2001) found cognitive and emotional jealousy to be positively related to relationship uncertainty. To date information on the relation between relationship uncertainty and behavioral jealousy is lacking.

## MATERIALS AND METHOD STUDY 2

### Sample and Procedure

Participants were recruited from passengers travelling between different train stations in the Netherlands. The sample included 199 heterosexuals, 104 men and 95 women, ranging from 17 to 71, with a mean age of 30.00 (SD = 12.58). Participants filled out the questionnaire on the spot and then returned it to one of the experimenters. At the time of the study, 26.4% of the participants were married, 22.8% were cohabiting, whereas 50.8% had no partner. Participants involved in intimate relationships had, on average, a relationship of 7 years (SD = 9.74) and 21.3% had children.

### Measures

*Dependency* was measured with the same scale as in Study 1. Coefficient alpha was .81. There was no sex difference in dependency (men  $M = 2.86$  vs women  $M = 2.69$ ,  $t = 1.59$ , ns).

*Relational satisfaction*, as in Study 1, was measured by the Relational Interaction Satisfaction Scale. In this study coefficient alpha was .90. Men and women did not differ on this variable ( $M = 4.33$  vs  $M = 4.32$ ,  $t = .22$ , ns).

*Relationship uncertainty* was measured with the same scale as in Study 1. Alpha for this scale was .76. Men and women did not differ on this variable ( $M = 1.90$  vs  $M = 2.03$ ,  $t = -1.41$ , ns).

### Jealousy

The same scales as in Study 1 were used to assess reactive, preventive and anxious jealousy. Although men and women reported equal intensities of preventive jealousy ( $M = 1.44$  vs  $M = 1.53$ ,  $t = -1.14$ , ns), women reported higher levels of both reactive ( $M = 3.34$  vs  $M = 3.05$ ,  $t = -2.36$ ,  $p < .05$ ) and anxious jealousy ( $M = 1.77$  vs  $M = 1.54$ ,  $t = -2.89$ ,  $p < .01$ ). Cronbach's alphas for the three subscales were respectively .77, .73 and .81. Correlations between the three subscales were .45 (reactive-preventive), .34 (reactive-anxious) and .48 (preventive-anxious;  $p$ 's < .001).

In addition, Study 2 assessed *emotional*, *cognitive*, and *behavioral* jealousy with the Multidimensional Jealousy Scale (Pfeiffer & Wong, 1989). Emotional jealousy was assessed by asking participant how they would feel in 8 hypothetical situations, such as 'Your partner hugs and kisses someone of the opposite sex', and 'Someone of the opposite sex is dating your partner'; cognitive jealousy was assessed by asking participants how often they had 8 thoughts about their partner, such as 'I suspect that my partner is crazy about members of the opposite sex' and 'I suspect that my partner is secretly seeing someone of the opposite sex', whereas behavioral jealousy was assessed by asking participants how often they engaged in 8 behaviors such as 'I look through my partner's drawers' and 'I pay a surprise visit just to see who is with my partner'. Items could be scored on 7-point scales, for the emotional jealousy scale ranging from very pleased (1) to very upset (7) for behavioral and cognitive jealousy scales from 1 (never) to 7 (all the time). Although men and women did not differ in the extent to which they reported cognitive ( $M = 1.88$  vs  $M = 1.88$ ,  $t = -.03$ , ns) and behavioral jealousy ( $M = 1.94$  vs  $M = 2.13$ ,  $t = -1.91$ , ns), women reported higher levels of emotional jealousy ( $M = 4.74$  vs  $M = 4.48$ ,  $t = -2.45$ ,  $p < .05$ ). Alpha's for these scales were .83, .75 and .75 respectively. Correlations between the three subscales were .08 (emotional-cognitive, ns), .35 (cognitive-behavioral,  $p < .001$ ) and .08 (emotional-behavioral, ns).

## RESULTS STUDY 2

### Construct Validity

To examine the construct validity of Buunk's (1997) scales, correlations were calculated between the scales for emotional, cognitive and behavioral jealousy on the one hand, and the scales for reactive, anxious and preventive jealousy on the other hand (see Table 2). Except for reactive jealousy, which was not related to cognitive jealousy, all three types of jealousy seem to encompass to some extent emotional, cognitive and behavioral aspects of jealousy. Nevertheless, both reactive and anxious jealousy as conceptualized by Buunk (1997) were particularly related to one specific type of jealousy proposed by Pfeiffer & Wong (1989). Reactive jealousy was particularly related to emotional

jealousy as conceptualized by Pfeiffer & Wong (1989). That is, as shown in Table 2, the correlation between reactive and emotional jealousy was higher than that between reactive and cognitive ( $t = 4.18, p < .001$ ) and that between reactive and behavioral jealousy ( $t = 2.48, p < .001$ ). Likewise, anxious jealousy as conceptualized by Buunk (1997) was particularly related to cognitive jealousy as conceptualized by Pfeiffer & Wong (1989).

That is, the correlation between anxious and cognitive jealousy was stronger than the correlation between anxious and emotional jealousy ( $t = 3.19, p < .001$ ) and that between anxious and behavioral jealousy ( $t = 2.50, p < .001$ ). In contrast, preventive jealousy correlated equally strong with emotional, cognitive and behavioral jealousy ( $t's < 1.03, ns$ ).

**Table 2:** Correlations between the Jealousy Scales

|            | <b>Emotional</b> | <b>Cognitive</b> | <b>Behavioral</b> |
|------------|------------------|------------------|-------------------|
| Reactive   | .40***           | .00              | .17*              |
| Anxious    | .31***           | .56***           | .37***            |
| Preventive | .39***           | .29***           | .38***            |

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

### Types of Jealousy Related to Relational Satisfaction, Dependency and Uncertainty

Pearson product moment correlations between reactive, anxious and preventive jealousy on the one

hand and relationship satisfaction, uncertainty and dependency on the other hand were calculated to test our hypotheses. As in Study 1, analyses were conducted separately for men and women (see Table 3).

**Table 3:** Reactive, Anxious and Preventive Jealousy Related to Relational Variables

|                     | <b>Reactive</b> | <b>Preventive</b> | <b>Anxious</b> |
|---------------------|-----------------|-------------------|----------------|
| <b>Dependency</b>   |                 |                   |                |
| Men                 | .25**           | .23**             | -.08           |
| Women               | .32**           | .28**             | .09            |
| <b>Satisfaction</b> |                 |                   |                |
| Men                 | .24**           | .17*              | -.02           |
| Women               | -.04            | -.08              | -.30**         |
| <b>Uncertainty</b>  |                 |                   |                |
| Men                 | .01             | .10               | .52***         |
| Women               | .33**           | .43**             | .70***         |

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

As shown in Table 3, hypothesis 1, stating that relational satisfaction would be positively related to reactive jealousy, but negatively to anxious jealousy and also negatively to preventive jealousy, although less strong than to anxious jealousy, was partially supported. In men both reactive and preventive jealousy, but not anxious jealousy, were positively and about equally strongly related to satisfaction ( $t = .61, ns$ ). In contrast, in women only anxious jealousy, but not reactive and preventive jealousy, was related - negatively - to satisfaction.

Hypothesis 2, the prediction that dependency would be related strongest to reactive jealousy followed by preventive jealousy and, finally, anxious jealousy was partially supported. Among men and women the same pattern could be observed: whereas dependency was positively and about equally strongly related to reactive and preventive jealousy (for men  $t = .18, ns$ , for women,  $t = .42, ns$ ), it was not significantly related to anxious jealousy.

Hypothesis 3, the expectation that relational uncertainty would be strongest related to anxious jealousy, followed by preventive jealousy and, finally, reactive jealousy, was partially confirmed for women

and men. In women uncertainty was more strongly related to anxious jealousy than to preventive and reactive jealousy ( $t's > 3.69, p < .001$ ), which both were about equally strongly related to uncertainty ( $t = .88, ns$ ). In men uncertainty was related strongly to anxious jealousy, but not at all to preventive and reactive jealousy.

These findings are overall quite compatible with those obtained in Study 1. In addition, as in Study 1, overall, among women jealousy was more closely related to relationship distress than among men: among women all types of jealousy were again more strongly related to uncertainty, and the correlations of jealousy with satisfaction tended to be negative among women, and positive among men.

Correlations were also calculated between the three subscales of the Multidimensional Jealousy Scale (Pfeiffer & Wong, 1989) and relational dependency, satisfaction and uncertainty (see Table 4). In both men and women relational satisfaction was found to relate negatively to cognitive and behavioral jealousy: in men about equally strongly to cognitive and behavioral jealousy ( $t = .59, ns$ ), in women stronger to cognitive than to behavioral jealousy ( $t = 1.93, p < .05$ ). In men

dependency was related negatively and about equally strongly to behavioral and cognitive jealousy ( $t = 1.51$ , ns) but not at all to emotional jealousy, whereas in women dependency was related positively to emotional jealousy, but not to cognitive and behavioral jealousy. In men uncertainty was positively and about equally strongly related to behavioral and cognitive jealousy ( $t$

$= .28$ , ns), but not to emotional jealousy. In women uncertainty was positively related to all three types of jealousy, about equally strongly to cognitive and emotional jealousy ( $t = .53$ , ns), and somewhat weaker to behavioral jealousy than to cognitive jealousy ( $t = 2.03$ ,  $p < .05$ , but not differently related to emotional jealousy  $t = 1.37$ , ns).

**Table 4:** Emotional, Cognitive and Behavioral Jealousy Related to Relational Variables

|                     | Emotional | Cognitive | Behavioral |
|---------------------|-----------|-----------|------------|
| <b>Dependency</b>   |           |           |            |
| Men                 | .00       | -.22*     | -.38***    |
| Women               | .35**     | .12       | -.16       |
| <b>Satisfaction</b> |           |           |            |
| Men                 | .04       | -.27**    | -.21*      |
| Women               | -.03      | -.21*     | -.41***    |
| <b>Uncertainty</b>  |           |           |            |
| Men                 | .07       | .31**     | .34**      |
| Women               | .45***    | .29**     | .51***     |

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

## DISCUSSION

The present two studies investigated the relationship between relational variables and three types of jealousy - reactive, anxious and preventive. We proposed that the direction of the associations would depend on the specific type of jealousy. In general, the findings are in line with the notion that reactive, preventive and anxious jealousy constitute a continuum ranging from more "healthy" to more "problematic" or 'unhealthy' experiences (see also Buunk *et al.*, 2020; Dijkstra *et al.*, 2010). Overall, the present findings illuminate why the findings on the associations between jealousy and relational satisfaction have in some studies been reported as negative (e.g., Andersen *et al.*, 1995; & Barnett *et al.*, 1985), but in other studies as positive (e.g., Nadler & Dotan, 1992; & Mathes, 1985). As in the study by Barelds & Dijkstra (2007), the present studies show that it is the type of jealousy that matters and reactive jealousy is related positively to relationship quality, and especially anxious jealousy is negatively related to relationship quality. Although some inconsistencies between the two studies arose, in general, the present findings suggest that whereas reactive jealousy serves a positive function and may arise from the desire to protect a valued and satisfying relationship, anxious jealousy may be indicative of uncertainty and a lack of trust, having a primarily negative impact on the relationship's quality. More specifically, we found reactive jealousy to be most closely linked to positive relationship outcomes, such as high dependency and high satisfaction, whereas anxious jealousy was related strongest to negative relationship outcomes, such as low satisfaction and high uncertainty. In contrast, preventive jealousy seemed to occupy an intermediate position, sometimes being accompanied by positive relationship outcomes, sometimes by negative ones and sometimes by the absence of either positive or negative outcomes. Preventive jealousy may sometimes

help to eliminate a realistic threat to the relationship by evoking actions aimed at protecting the relationship. While anxious jealousy may also be triggered by both a realistic as well as an unrealistic relationship threat, anxious jealousy, even in response to an actual relationship threat, seems hardly productive: merely worrying and ruminating about a partner's potential infidelity will hardly help to solve the problem of infidelity.

With regard to relational uncertainty and satisfaction, overall, in women jealousy seemed to play a more negative role than in men. More specifically, whereas in men, in both studies, satisfaction related positively to reactive jealousy and in Study 2 also positively to preventive jealousy, in women, in both studies, satisfaction related negatively to anxious jealousy and in Study 1 also negatively to preventive jealousy. A possible explanation is that men, more than women, use reactive and preventive jealousy as protective measures to shield their relationships from rivals. Previous studies have indeed shown that in men jealousy is more often expressed by preventive behaviors and proprietaries than in women (e.g., Buss, 2000; Buss & Shackelford, 2000; & Paul & Galloway, 1994). As a consequence, the higher men perceive their level of relationship outcomes, the more they have to lose and the more intense they will experience reactive and preventive jealousy. In contrast, women generally tend to worry more over the potential infidelity of a mate than men (Buunk, 1995; & Guerrero *et al.*, 1993). Our studies suggest that this is especially the case when women perceive their relationship as relatively dissatisfying. Women in dissatisfying relationships may fear that their mate is or will become unfaithful because their partner perceives a low level of rewards. In addition, because of its potentially pathological nature, anxious jealousy itself may lower relationship rewards by evoking relationship problems. For instance,

paranoid suspicions and delusions of unfaithfulness may make a mate feel imprisoned, result in arguments, and as a consequence, lower relational satisfaction. The more negative role of jealousy in women's relationships was also suggested by the finding that in women, in both studies, relational uncertainty was positively related to all three types of jealousy. In contrast, among men, uncertainty was related only to anxious and preventive jealousy in Study 1, and only to anxious jealousy in Study 2. When relationship uncertainty is high, individuals are especially vulnerable to concerns about the stability of the relationship and doubts about a mate's fidelity (Knobloch *et al.*, 2001). Because men in general are more promiscuous than women, even when they are in a long-term relationship (Buss, 1994; & Clark & Hatfield, 1989), women have more reason to feel insecure about their mate's fidelity. As a consequence, relational uncertainty may be linked stronger to women's jealousy than to men's.

The present findings on the relations between the types of jealousy categorized by Pfeiffer & Wong (1989) - emotional, cognitive and behavioral jealousy- and relational variables are largely consistent with previous studies. Highly consistent with previous studies, cognitive jealousy was found to be strongly tied to negative relationship outcomes, that is low levels of relationship satisfaction and dependency and high levels of uncertainty (see also Guerrero & Eloy, 1992; Knobloch *et al.*, 2001; & Andersen *et al.*, 1995). Some inconsistencies, however, were also found. For instance, whereas Guerrero & Eloy (1992) found emotional, cognitive and behavioral jealousy to be all inversely related to marital satisfaction, the present study found only cognitive jealousy to be related negatively to relational satisfaction. This discrepancy may be explained by the fact that in both studies the concept of relational satisfaction was operationalized differently: in the present study with the Relationship Satisfaction Interaction Scale, in Guerrero and Eloy's study with the Dyadic Adjustment Scale.

The present findings also showed that the distinction between reactive, anxious and preventive jealousy is not merely the same as that between emotional, cognitive and behavioral jealousy. When associations between jealousy and relational variables were examined, both resemblances and differences between both typologies emerged. For instance, uncertainty was related to both anxious as well as cognitive jealousy. In contrast, whereas in men dependency was positively related to reactive and preventive jealousy, it was negatively related to cognitive and behavioral jealousy. Therefore, although to some extent they may overlap, both typologies seem to focus on different underlying dimensions of jealousy, and may provide, each in their own unique way, valuable information about the state of intimate relationships. However, it must be noted that Buunk's (1997) typology provided much more information than

that of Pfeiffer & Wong (1989) with regard to the potential positive role jealousy may play in intimate relationships. When operationalizing jealousy with Pfeiffer and Wong's typology, only one association was found, i.e., a positive association between emotional jealousy and high dependency in women. In contrast, using Buunk's typology resulted in much more associations that pointed towards the potentially positive role of jealousy in, for instance, relationship maintenance. Whereas the distinction between emotional, cognitive and behavioral jealousy made by Pfeiffer & Wong (1989) refers primarily to different dimensions of jealousy, Buunk's typology refers to qualitatively different types of jealousy.

Although for both sexes reciprocity of relationship rewards and costs may be highly associated to jealousy, the present study shows that this may be different for men and women. A possible explanation is that infidelity has a different meaning for men and women, and may therefore have a different impact on relationship variables. For instance, whereas men often have affairs without becoming emotionally involved, women more often engage in affairs with men for whom they also have romantic feelings (e.g. Clark & Hatfield, 1989; & Buss *et al.*, 1992). Furthermore, there is abundant evidence that men and women cope differently with a mate's actual or potential infidelity, which may help explain why associations between for instance relational uncertainty and jealousy are different for men and women. A recurrent finding is, for instance, that, in response to a jealousy-evoking event, women, more than men, tend to doubt themselves (Buunk, 1995), try to make themselves look more attractive, cry when alone and feign indifference to their partner (Buss & Shackelford, 1997; DeWeerth & Kalma, 1993; & Shettel-Neuber *et al.*, 1978). In contrast, men report more often that they would get drunk or high when confronted with a partner's infidelity (DeWeerth & Kalma, 1993; & Shettel-Neuber *et al.*, 1978).

## CONCLUSION

The present study extends previous findings on different types of jealousy and the state of intimate relationships. In doing so, it showed that distinguishing between different types of jealousy is not only a fruitful approach to study jealousy, but also a necessary one: different types of jealousy relate differently to relational variables and do so differently for men and women. Therefore, merely asking individuals how 'upset' they would feel in response to a jealousy-evoking event, as many researchers have done in the past, does not suffice if one wants to study the role of jealousy in intimate relationships. Distinguishing between different types of jealousy may help understand the diverse effects jealousy may have on the quality of intimate relationships. Moreover, it may help develop strategies to more effectively cope with negative expressions of

jealousy, leaving intact the type of jealousy that may protect or otherwise benefit the relationship.

**Acknowledgments:** The authors thank Wendy Visscher for her help in collecting the data for Study 2.

**Author Contributions:** both authors contributed equally to the analysis of data, and the writing of the manuscript. The data collection for Study 1 was done by A.P. B. and for Study 2 under his supervision.

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study

**Conflicts of Interest:** None

**Research Data:** the data are available upon request to the first author.

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