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Romantic jealousy and implicit and explicit self-esteem

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ABSTRACT

Research on romantic jealousy and self-esteem mostly relies on the measurement of explicit (i.e., conscious, deliberate) aspects, without taking recent developments of the measurement of implicit (i.e., automatic) aspects into account. In this study ($N = 154$), we applied several measures of romantic jealousy and self-esteem (explicit, implicit), finding sex-specific as well as measurement-specific effects. Men (but not women) higher in jealousy had lower explicit self-esteem, whereas women (but not men) higher in jealousy had higher implicit self-esteem, but only when using the Implicit Association Test (whereas not the Initial Preference Task) for measuring implicit self-esteem. Individuals with damaged (i.e., low explicit and high implicit) self-esteem were more jealous than those with fragile (i.e., high explicit and low implicit) self-esteem. This differential effect was due to higher implicit self-esteem among women, whereas lower explicit self-esteem among men. These novel findings not only add to the expanding literature on romantic jealousy research, but also to research on self-esteem discrepancies.

1. Introduction

Jealousy is a fundamental human emotion (Buss, 2000). It is part of our lives from childhood to old age and intensified in romantic relationships (Salovey, 1991). A bulk of research has analyzed different aspects of romantic and sexual jealousy; for example, jealousy in interpersonal situations or jealous reactions in response to sexual vs. emotional infidelity (Buss, Larsen, Westen, & Semmelroth, 1992; Buunk, 1995). Since the seminal paper of Buss and colleagues (1992), sex differences in jealousy have been repeatedly investigated. Men (compared to women) show more distress by partners' sexual infidelity, whereas women (compared to men) more distress by partners' emotional infidelity. This effect is due to the sexes' different adaptive problems in mating contexts, with which humans have been faced throughout evolutionary history (cuckoldry among men vs. loss of partner investment in offspring among women).

Jealousy can be best described as a combination of different emotions like hurt, anxiety, and anger (Parrott & Smith, 1993), and it seems to be mediated by threatened self-esteem (DeSteno, Valdesolo, & Bartlett, 2006). Self-esteem develops in interactions with our social environment by the evaluations and perceptions of others (i.e., the "sociometer"; Leary, Tambor, Terdal, & Downs, 1995). Experiencing partner interest in someone else threatens the relationship as well as an important determinant of self-esteem – the social interaction with significant others, such as the romantic partner. This threatens one's self-esteem and in turn jealousy arises (DeSteno et al., 2006).

Apart from this process-oriented model, self-esteem also seems to be directly related to romantic jealousy, such that low self-esteem is associated with higher jealousy (Mullen & Martin, 1994; Rydell & Bringle, 2007). All in all, this research line on jealousy and self-esteem has almost exclusively relied on direct (i.e., questionnaire-based) measures, without taking into account the recent developments of measuring implicit (i.e., automatic) aspects.

Since Greenwald and Banaji (1995), it is assumed that psychological aspects like self-esteem not only have explicit (i.e., conscious, habitual) parts, but also implicit (i.e., automatic) ones. Hence, it is fitting to use indirect measurement procedures (measuring implicit aspects) together with direct measurements (capturing explicit aspects). Indeed, research on jealousy has already applied indirect measurement procedures to measure implicit aspects (e.g., implicit self-esteem: DeSteno et al., 2006; or implicit evaluations of attractive same-sex targets: Maner, Miller, Rouby, & Gailliot, 2009), but research along these lines still is scarce.

Implicit self-esteem has been used in experimental designs to analyze short-term effects of jealousy-inducing situations on implicit self-esteem (DeSteno et al., 2006). However, to our knowledge no study to date has analyzed trait aspects of self-esteem (explicit and implicit) and jealousy in more detail. Furthermore, recent research (Jordan, Spencer, Zanna, Hoshino-Browne, & Coreel, 2003) has suggested a dual separation of self-esteem into concordant and discrepant self-esteem *styles*. Individuals with concordant self-esteem have either high explicit and high implicit self-esteem (i.e., secure high self-esteem) or low explicit and low implicit self-

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esteem (i.e., secure low self-esteem). In a similar vein, individuals with discordant self-esteem can also be divided into two subtypes: those with high implicit and low explicit self-esteem (i.e., damaged self-esteem) vs. those with low implicit and high explicit self-esteem (i.e., defensive or fragile self-esteem). Especially, in clinical samples, damaged self-esteem has frequently been found among individuals suffering from psychological distress (i.e., frequently showing low explicit self-esteem), such as in depression with suicidal ideation (Franck, De Raedt, Dereu, & Van den Abbeele, 2007), bulimia nervosa (Cockerham, Stopa, Bell, & Gregg, 2009), or alexithymia (Dentale, San Martini, De Coro, & Di Pomponio, 2010).

The theoretical framework accounting for the emergence of such self-esteem discrepancies is still under debate. Explanations range from normal attitude change (Jordan et al., 2003) to an "automatic threat-defense mechanism", according to which individuals automatically increase their implicit self-esteem in order to defend against threats (Rudman, Dohn, & Fairchild, 2007).

1.1. Present study

We addressed two research questions. First, we analyzed whether implicit vs. explicit self-esteem is linked to different aspects of jealousy by using two different measures of implicit self-esteem. This research question was explorative. Second, because individuals under psychological distress often show damaged self-esteem, this might also apply to individuals high in jealousy. If so, individuals high in jealousy should reveal low explicit self-esteem, but high implicit self-esteem.

2. Method

2.1. Participants

Participants (N = 154; 58.2% men; M_{age} = 34.3 years, SD = 11.1, range 19–60 years) were German-speaking volunteers from all walks of life (i.e., various living backgrounds). Regarding current relationship status, 43.0% were in a (partnered) relationship, 25.3% were married, 22.2% were single, and 9.5% divorced.

2.2. Measures

2.2.1. Rosenberg Self-Esteem Scale (RSES; von Collani & Herzberg, 2003)

The RSES is a 10-item measure of general explicit self-esteem (0: *totally disagree*; 3: *totally agree*; α = .86).

2.2.2. Initial Preference Task (IPT; Kitayama & Karasawa, 1997; Nuttin, 1985)

The IPT is based on the name-letter effect (NLE; preference for name letters over non-name letters: Nuttin, 1985) and is frequently used as an indirect measure of implicit self-esteem (for a meta-analytic review, see Stieger, Voracek, & Formann, in press). Letters A–Z were rated on 7-point scales (1: *I don't like*; 7: *I like*). This rating was done twice (Rudolph, Schröder-Abé, Schütz, Gregg, & Sedikides, 2008), in order to calculate reliable name-letter effects separately for the first-name initial (IPT-first) and the last-name initial (IPT-last; Stieger et al., in press; retest reliabilities $r_{IPT\ first}$ = .71, $r_{IPT\ last}$ = .55). Participants were instructed to trust their "gut impression", as recommended (Koole, Dijksterhuis, & van Knippenberg, 2001).

2.2.3. Self-Esteem Implicit Association Test (SE-IAT; Greenwald & Farnham, 2000)

The IAT (Greenwald, McGhee, & Schwartz, 1998) is a speeded keyboard-based sorting task which produces a difference score of reaction times based on association strengths (whereby stronger ones lead to faster reactions) between paired concepts (e.g., me + positive and other + negative vs. me + negative and other + positive). The IAT can be used for the measurement of diverse psychological aspects (e.g., attitudes, stereotypes, self-concepts) and is one of the most widely used indirect measures of implicit evaluations (for meta-analytic reviews, see Greenwald, Poehlman, Uhlmann, & Banaji, 2009; Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005). The SE-IAT administered here used the concepts I vs. other and negative vs. positive to measure implicit self-esteem ($r_{split\text{-}half}$ = .76). The SE-IAT was administered in addition to the IPT because different indirect measures seem to assess distinct aspects of implicit evaluations, as suggested by frequently observed null correlations among them (Bosson, Swann, & Pennebaker, 2000). Hence, the SE-IAT vs. the IPT might gauge different implicit aspects.

2.2.4. Multidimensional Jealousy Scale (MJS; Pfeiffer & Wong, 1989)

The MJS is a 24-item measure of cognitive (sample item: "I suspect that X is crazy about members of the opposite sex"), emotional (sample item: "X hugs and kisses someone of the opposite sex"), and behavioral jealousy (sample item: "I question X about his or her telephone calls"). All items were answered on 7-point scales (cognitive and behavioral jealousy: 1: *Never*; 7: *All the time*; emotional jealousy: 1: *Pleased*; 7: *Upset*; $\alpha_{cognitive}$ = .89, $\alpha_{emotional}$ = .92, $\alpha_{behavioral}$ = .85, α_{total} = .93).

2.2.5. Interpersonal Jealousy Scale (IJS; Mathes & Severa, 1981)

The IJS is a 27-item measure of global jealousy, using 9-point scales (1: *absolutely false*, 9: *absolutely true*; α = .92; sample item: "If my partner admired someone of the opposite sex, I would feel irritated").

2.2.6. Sexual Jealousy Scale (SJS; Dijkstra et al., 2001)

The SJS is a composite of six different forced-choice infidelity scenarios (taken from Buss et al., 1992, 1999; see also Shackelford et al., 2004). Sexual infidelity responses were summed across the six scenarios (α = .82). One sample scenario (from Buss et al., 1992, p. 252) reads as follows: "Please think of a serious committed romantic relationship that you have had in the past, that you currently have, or that you would like to have. Imagine that you discover that the person with whom you've been seriously involved became interested in someone else. What would distress or upset you more. (A) Imagining your partner forming a deep emotional attachment to that person. (B) Imagining your partner enjoying passionate sexual intercourse with that other person."

2.3. Procedure

German translations of the above scales were developed using the parallel blind method (Behling & Law, 2000), unless translations were already available (such as for the RSES). Participants were recruited through personal contacts. Study parts were completed in the following sequence: demographics, IJS, first IPT administration, SJS, RSES, MJS, second IPT administration, SE-IAT, and participants' initial letters.

2.4. Analysis

In general, higher scores on the above scales reflected higher jealousy (or self-esteem), except for the SJS (higher scores reflected higher sexual jealousy vs. lower scores higher emotional jealousy). Implicit self-esteem was calculated as recommended (D algorithm for the IAT: see Greenwald, Nosek, & Banaji, 2003 for its advantages; I algorithm for the IPT: Baccus, Baldwin, & Packer, 2004; see LeBel & Gawronski, 2009, for the merits of this one over other IPT scoring methods).