When Being Agreeable Matters:

The Importance of Agreeableness (and Self-Esteem) for Risk Regulation in Close Relationships

by

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A thesis

presented to the University of Waterloo

in fulfillment of the

thesis requirement for the degree of

Doctor of Philosophy

in

Psychology

Waterloo, Ontario, Canada, 2019

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of my thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

In the quest for satisfying close relationships, one is left vulnerable to hurt and rejection. For people with lower self-esteem (LSEs), such rejection seems unavoidable. To steel themselves against this inescapable hurt, LSEs pre-emptively self-protect by psychologically distancing themselves from their partners and relationships at the slightest hint that their relationship may be threatened. People with higher self-esteem (HSEs), who do not view rejection as inevitable, instead remain psychologically close and connected to their partners and relationships, even when they feel that their relationship security has been threatened. These different responses to relationship threats have consequences for the health and stability of close relationships, and it is therefore important to understand the situations and dispositions that predict them. In the present research, I examined two traits—self-esteem and agreeableness—that I predicted would be associated with responses to relationship threats. I expected that, following a relationship threat, LSEs who were higher in agreeableness would actually respond to relationship threats in the same way that HSEs do—by connecting with their partners and relationships. I predicted that only less agreeable LSEs would engage in self-protection following a relationship threat. Although the results were more complicated than I had predicted, over four experiments, I found that the effects of self-esteem on risk regulation processes can vary with one's level of agreeableness. Specifically, being higher in agreeableness can at times allow LSEs to remain connected in the face of threats to their relationships. In fact, agreeableness may be even more important for risk regulation than is self-esteem. Although unexpected, the results of the present studies also suggest that less agreeable HSEs may share some characteristics of narcissism. Notably, I was unable to replicate the typical self-esteem by condition effect found in risk

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regulation research. Future research should examine the boundary conditions on agreeableness

and self-esteem as resources for connection following relationship threats.

Acknowledgements

My utmost gratitude for the financial support provided to me throughout my graduate career by the Social Sciences and Humanities Research Council, Ontario Graduate Scholarship, the University of Waterloo, and the UW Psychology Department.

I am endlessly thankful to my supervisor, Joanne Wood, for being an incredible source of knowledge, support, guidance, and laughter. I have treasured every moment working with Joanne, and I feel incredibly lucky to have had her as my mentor. She has undoubtedly made me a better academic, researcher, writer, and speaker, and has instilled in me a confidence that I will carry with me well-beyond graduate school. A heartfelt thanks, as well, to John Holmes. John's enthusiasm, insight, and the time he continues to devote to research are truly a gift to all graduate students who are lucky enough to work with him. I am so grateful to have been able to work with not only one, but two experts in the field of close relationships during my time at Waterloo.

Thank you to Richard Eibach for his unending kindness, thoughtfulness, and generosity with his knowledge, and to the entire social psychology faculty for creating such a supportive and collegial environment in our department.

I am grateful to Sherman Kwok for being a wonderful friend, colleague, collaborator, and most of all, Master of Whisperers. Thanks for all the sass and support over the years.

Special thanks to my best friend, Reynolds, for keeping me grounded and always being there for laughs, cries, and cat photos from across the country. The Dream Team did it!

Last but certainly not least, thank you to my husband Tom, without whom this would have all felt impossible. There are no words to express how much I appreciate your love, support, and patience. You make life a whole lot better.

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Introduction

"Of course I'll hurt you. Of course you'll hurt me. Of course we'll hurt each

other. But this is the very condition of existence. To become spring, means

accepting the risk of winter. To become presence, means accepting the risk of

absence." (Saint-Exupéry)

Throughout our lives, we willingly accept risk in order to reap a worthy reward—we buy

lottery tickets, try new restaurants, and go on blind dates—all in the hope that our risks will pay

off. Perhaps nowhere is this tradeoff more evident than in our close relationships, about which

Saint-Exupéry might have said: To become close with another, means accepting the risk of

rejection. As we strive to satisfy our needs for closeness and belonging (Baumeister & Leary,

1995) by establishing stable and satisfying intimate relationships, we necessarily leave ourselves

vulnerable to rejection and hurt feelings (Murray, Derrick, Leder, & Holmes, 2008; Murray,

Holmes, & Collins, 2006; Murray, Rose, Bellavia, Holmes, & Kusche, 2002). Ironically,

however, to protect ourselves from rejection, we necessarily leave ourselves vulnerable to

losing—or perhaps never even establishing—intimate relationships. This tradeoff is ever-present

in close relationships: The more connection, intimacy, and interdependence we share with

another person, the greater our risk of hurt and distress should rejection occur (Murray et al.,

2006; Murray & Holmes, 2009; Simpson, 1987). Striking a balance between the desire to

connect with others and the desire to self-protect is the crux of interpersonal risk regulation

(Murray et al., 2002; 2006; 2008).

Risk Regulation

The primary purpose of the risk regulation system is to monitor the likelihood of

interpersonal rejection, and to shift between self-protection goals (e.g., avoiding the pain of

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rejection) and connection goals (e.g., increasing closeness) accordingly (Murray et al., 2006). In the context of risk regulation research, rejection can refer not only to outright relationship dissolution, but also to situations in which one's partner hurts one's feelings. According to Murray and colleagues (2006), certain "if-then" contingencies shape our cognitive, affective, and behavioural responses to the perceived risk of rejection (Murray & Holmes, 2011). Specifically, "if" the perceived risk of rejection is high, "then" distance and self-protect to avoid the pain of rejection. Likewise, "if" the perceived risk of rejection is low, "then" connect and promote the relationship. Evidence suggests that situations involving conflict with or criticism from a romantic partner, or feeling that one's partner misunderstands oneself or is unresponsive to one's needs, may trigger feelings of rejection, and thus activate the risk regulation system (Bellavia & Murray, 2003; Murray et al., 2002; 2008).

Why should we care how people respond to feelings of rejection? Research suggests that chronic risk regulation tendencies affect relationship quality and satisfaction (Murray, Griffin, Rose, & Bellavia, 2003): Partners who draw closer (e.g., by idealizing their relationship) when one or both feels that their relationship security is threatened tend to have happier, healthier relationships than do those who self-protect (e.g., by decreasing their commitment), whose relationships can be harmed by their self-distancing, cautious responses, which reduce intimacy and connection (Murray, Bellavia, Rose, & Griffin, 2003).

Risk Regulation and Self-Esteem

Once the risk regulation system has been activated by a perceived threat to one's relationship security, what determines whether self-protection or connection will be prioritized? One crucial deciding factor is one's level of interpersonal trust (Holmes, 2002; Murray, Aloni, et al., 2009; Murray, Bellavia, et al., 2003; Murray & Holmes, 2011; Murray et al., 2011), defined

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as "the belief that one's partner will act in loving and caring ways whatever the future holds" (Rempel, Holmes, & Zanna, 1985, p. 109). Though trust can vary between partners and even within relationships (e.g., trust in a partner may decline after learning that they have been unfaithful), self-esteem—one's chronic level of relational value (Cavallo, Fitzsimons, & Holmes, 2009; Leary, 2004; Leary & Baumeister, 2000; Leary, Tambor, Terdal, & Downs, 1995)— predicts one's overall, enduring tendency to trust others (Cavallo, Murray, & Holmes, 2013; Murray et al., 2006). Those with relatively higher self-esteem (HSEs), who are confident in their relational value and feel secure in their relationships, are able to draw on their secure base when faced with the risk of rejection (Cavallo et al., 2013). These individuals are attuned to and expect acceptance from others. They tend to respond to the threat of interpersonal rejection by prioritizing connection—drawing closer to and idealizing their partner, and becoming more optimistic about the future of their relationship (Cavallo et al., 2009; 2012; Murray, Griffin et al., 2003; Murray et al., 2008).

On the other hand, people with relatively lower self-esteem (LSEs), who are uncertain of their own relational value, easily see signs of rejection, even where none exist (Downey & Feldman, 1996; Murray, Bellavia, et al., 2003; Murray, Griffin, et al., 2003; Murray, Holmes, & Griffin, 2000). LSEs consistently underestimate their partner's love for them (Murray, Griffin, et al., 2003; Murray, Holmes, Griffin, Bellavia, & Rose, 2001), and see rejection as inevitable (Downey & Feldman, 1996; Murray et al., 2002). Because LSEs see acceptance from others as less certain and in particular, doubt their ability to establish and maintain close relationships, rejection hurts them more than it does HSEs (Murray et al., 2001; Nezlek, Kowalski, Leary, Blevins, & Holgate, 1997). LSEs, wishing to buffer themselves from what they see as inevitable hurt and rejection, prioritize self-protection goals in situations of relationship threat (Murray et

al., 2006; 2008). They psychologically distance themselves from their relationship by evaluating their partners and relationships more negatively than they would otherwise (Murray et al., 2002; 2006; 2008), becoming less optimistic about the future of their relationship (Cavallo et al., 2009; 2012; Murray et al., 2008), reducing closeness with their partner, and engaging in relationship-sabotaging behaviours, such as criticizing, ignoring, or snapping at their partner (Murray, Bellavia, et al., 2003).

These harmful responses are not limited to those with lower self-esteem. Individuals higher in traits similar to lower self-esteem (and thus to lower trust), such as attachment anxiety and rejection sensitivity, demonstrate similar patterns of thought and behaviour (e.g., Ayduk, Downey, Testa, Yen, & Shoda, 1999; Campbell, Simpson, Boldry, & Kashy, 2005). For example, after being led to believe that their partners saw several faults in them, socially anxious participants devalued their partners: They evaluated them less positively on a variety of attributes (e.g., physical attractiveness, intelligence, social skill) than they did when they were not led to believe this falsehood, or than did less socially anxious participants (Afram & Kashdan, 2015). Not surprisingly, the romantic relationships of anxious and LSE people tend to suffer over time, as do both their own and their partner's relationship satisfaction (Murray, Bellavia, et al., 2003; Murray, Griffin, et al., 2003).

Given the importance of close, satisfying relationships for mental and physical health, as well as for longevity (Braithwaite & Holt-Lunstad, 2017; Holt-Lunstad, 2018; Jaremka, Glaser, Malarkey, & Kiecolt-Glaser, 2013; Kiecolt-Glaser, 2018; Robles, Slatcher, Trombello, & McGinn, 2014), it is crucial to investigate the circumstances under which LSEs may be more likely to engage in connecting and relationship promoting behaviours, even in the face of perceived relationship threat. In the present research, I examine the potential moderating role of

another personality factor—agreeableness—on risk regulation tendencies following relationship threats.

Another Dispositional Determinant of Risk Regulation Tendencies?

It is well-established that self-esteem is associated with risk regulation (see Cavallo et al., 2013, for a review). However, this trait might only capture part of the story. Despite that risk regulation is one of relationship science's most popular theories, research has primarily focused on a handful of closely related correlates and predictors (e.g., self-esteem, anxious attachment, trust). As with many attitudes and behaviours, it is likely that our responses to relationship threats are multiply determined. One promising candidate is the trait of agreeableness.

Agreeableness encompasses a wide array of features that are relevant in interpersonal contexts, and that I argue, should play a key role in risk regulation. For example, compared to their less agreeable peers, more agreeable people see others in a more benevolent light—they are more forgiving, generous, cooperative, kind, and empathic, and in turn, they trust that others will be forgiving, generous, cooperative, kind, and empathic (Cortes, Kammrath, Scholer, & Peetz, 2014; Costa & McCrae, 1992; Crowe, 2017; Goldberg, 1992; Graziano, Habashi, Sheese, & Tobin, 2007; Graziano, Jensen-Campbell, & Hair, 1996; Perunovic, 2008). Agreeableness is also associated with greater ability to regulate negative affect and to suspend self-interest (Gadke, Tobin, & Schneider, 2016; Jensen-Campbell & Graziano, 2001; Jensen-Campbell, Gleason, Adams, & Malcolm, 2003; Ode, Robinson, & Wilkowski, 2008), and to resolve conflicts through compromise rather than confrontation or aggression (Côté & Moskowitz, 1998; Field, Tobin, & Reese-Weber, 2014; Gadke et al., 2016; Graziano et al., 1996; Jensen-Campbell et al., 2003; Wood & Bell, 2008). Not only do agreeable individuals resolve conflicts more skillfully, they also perceive and elicit less conflict in their interactions (Graziano et al., 1996; Suls, Martin, &

David, 1998). Perhaps most importantly, agreeable people are highly motivated to maintain close, harmonious relationships with others (Graziano & Eisenberg, 1997; Tobin, Graziano, Vanman, & Tassinary, 2000). Not surprisingly, then, like HSEs, highly agreeable people report more satisfying and secure interpersonal relationships, and greater intimacy than do their less agreeable peers (Dyrenforth, Kashy, Donnellan, & Lucas, 2010; Perunovic, 2008; Tov, Nai, & Lee, 2016; Watson, Hubbard, &Wiese, 2000; White, Hendrick, & Hendrick, 2004). It is for all these reasons that I believe agreeableness should be critical to interpersonal risk regulation.

The Interplay of Self-Esteem and Agreeableness

In the present research I hypothesize that self-esteem and agreeableness will work in tandem to reduce the likelihood that relationship partners will engage in self-protection when they feel that their relationship security is threatened. Some recent evidence supports the idea that self-esteem, agreeableness, and their interaction may play a role in risk regulation: People who are higher in both self-esteem and agreeableness, and thus trust, are more willing to disclose vulnerable emotions or personal shortcomings to others (McCarthy, Wood, & Holmes, 2017). Given past research demonstrating that following a relationship threat, HSEs often connect and promote their relationships, whereas LSEs self-protect (e.g., Murray et al., 2002), I expected that agreeableness would be most impactful for LSEs: LSEs who were higher in agreeableness would be buffered against their typical self-protective, relationship damaging tendencies. In other words, I expected that LSEs who were higher in agreeableness would respond to relationship threats in much the same way as HSEs do—by connecting with their partners and promoting their relationships. Being higher in agreeableness, and thus, interpersonal trust, should be especially beneficial for LSEs, who would otherwise lack the trust that would allow them to connect with their partners when feeling threatened. Therefore, I expected that only LSEs who

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were lower in agreeableness would engage in self-protection following a relationship threat. Consistent with this prediction, research among rejection-sensitive high school students has shown that being lower in agreeableness exacerbates the relationship difficulties faced by those who are rejection sensitive—a characteristic of lower self-esteem. For instance, those who are both lower in agreeableness and higher in rejection sensitivity have lower friendship satisfaction and greater social withdrawal (Wang, Hartl, Laursen, & Rubin, 2017).

Under non-threatening conditions, I did not predict any considerable self-esteem differences in how people would respond to their partners—differences are rarely found between HSEs and LSEs in control conditions with regard to how they view and rate their partners or their relationships (Murray et al., 2002). However, because a hallmark of agreeableness is the tendency to view others in a more benevolent light, I expected that compared to their less agreeable peers, highly agreeable people would generally report feeling more positively about their relationships and their partners than would less agreeable people.

In sum, I predicted a three-way interaction among self-esteem, agreeableness, and threat condition (threat vs. no threat control), such that threatened participants would only engage in self-protective cognitions (e.g., by decreasing self-reported positive feelings about their partner and relationship) if they were lower in both self-esteem and agreeableness. I expected that threatened participants who were higher in self-esteem and/or agreeableness, however, would engage in connecting and relationship promoting cognitions (e.g., by increasing self-reported positive feelings about their partner and relationship). Higher, more positive scores on measures of relationship and partner appraisals would indicate greater connection, whereas lower scores would indicate greater self-protection. I predicted that unthreatened participants would not differ to any great degree, although I expected a small main effect of agreeableness, whereby those

higher agreeableness would appraise their partners and their relationships more positively than would those lower in agreeableness.

To test these hypotheses, I conducted a series of four experiments. In Study 1, I examined the combined effects of agreeableness and self-esteem in an established risk regulation paradigm that has reliably elicited self-esteem differences (Cavallo et al., 2009; 2012; Murray et al., 2002). In Study 2, I investigated how the roles of self-esteem and agreeableness may differ depending on the strength of relationship threat, while still using well-established risk regulation paradigms. In Study 3, I measured self-reported accommodation tendencies following a relationship threat. I expected that agreeableness would be especially important for determining how accommodative people would be following a threat. Last, because agreeableness is a key determinant of how people respond to relationship conflicts (Gadke et al., 2016; Graziano et al., 1996; Jensen-Campbell et al., 2003; Yao & Moskowitz, 2015), in Study 4, I used an interpersonal conflict manipulation as a relationship threat in an attempt to draw out the moderating role of agreeableness.

Study 1: An Established Risk Regulation Paradigm

In Study 1, I used a well-established risk regulation paradigm to investigate the hypothesis that being highly agreeable would enable LSEs to pursue connection over protection when threatened. Following a relationship threat, I expected that only LSE, less agreeable people would become self-protective.

Method

Participants

Two hundred and forty-one undergraduate students involved in romantic relationships participated in exchange 0.50 course credits or $5.00 CAD. Nine participants who failed more

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than two attention checks were excluded, resulting in a final sample of 232 (176 women, 56 men; M_{age} = 21 years, SD = 3; Mdn = 20).[1] Participants had been in their relationship for an average of 2.1 years (SD = 2.1; Mdn = 1.5); 79% were exclusively dating their partner, 9% were cohabiting, 5% were casually dating, 4% were married, 2% were engaged, and 1% were in another type of relationship.

Materials

Self-esteem. Rosenberg's (1965) 10-item self-esteem scale (α = .91) assessed global self-esteem using items such as "I take a positive attitude toward myself," rated from 1 (*very strongly disagree*) to 9 (*very strongly agree*). This reliable, well-validated measure is the most frequently used self-esteem scale (Gray-Little, Williams, & Hancock, 1997; Robins, Hendin, & Trzesniewski, 2001). This measure was used to assess self-esteem in all four experiments in the present research.

Agreeableness. The 9-item Agreeableness subscale from John, Donahue, and Kentle's (1991) Big Five Inventory (BFI) assessed agreeableness (α = .76) with items such as "I am someone who has a forgiving nature" and "I am someone who is considerate and kind to almost everyone," rated from 1 (*disagree strongly*) to 5 (*agree strongly*). The Big Five Inventory is widely used in social and personality psychology and demonstrates good convergent and discriminant validity (Benet-Martínez & John, 1998; Rammstedt & John, 2007). This measure assessed agreeableness in all four experiments in the present research.

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[1] Using effect sizes from past risk regulation research as a guide (e.g., Cavallo et al., 2009; 2012; McCarthy et al., 2017; Murray et al., 2002), power simulations were conducted using the paramtest package (Hughes, 2017) in R (R Core Team, 2016). Results indicated that a sample of 200 participants would provide over .80 power to detect a two-way interaction between condition and self-esteem interaction, and approximately .80 power to detect a three-way interaction among condition, self-esteem, and agreeableness. All samples in the current experiments exceeded N = 200.

Relationship and partner appraisals. Appraisals of the relationship and the partner were assessed using a 20-item composite measure ($\alpha = .93$). This outcome measure was constructed to closely parallel that used by Cavallo et al. (2009; 2012) in their risk regulation work. As such, this composite included two items assessing unconditional regard (e.g., "My partner loves and accepts me unconditionally;" Murray et al., 2002), three relationship satisfaction items (e.g., "My relationship makes me very happy;" Rusbult, Martz, & Agnew, 1998), three relationship commitment items (e.g., "I would not feel very upset if my relationship were to end in the near future;" Rusbult et al., 1998), three relationship optimism items (e.g., "My partner and I will be together in 2 years;" Cavallo et al., 2012; MacDonald & Ross, 1999), four items assessing general interpersonal qualities of the partner (e.g., "My romantic partner is understanding;" Murray, Holmes, & Griffin, 1996), three items assessing optimism about the partner (e.g., "In the future, my partner will compliment or praise some aspect of my personality;" Murray, Holmes, MacDonald, & Ellsworth, 1998; Murray et al., 2002), and two items assessing subjective closeness (e.g., "Relative to what you know about other people's close relationships, how would you characterize your relationship with your partner?;" Berscheid, Snyder, & Omoto, 1989). All items were assessed using 7-point Likert scales, with the exception of the subjective closeness items, which were assessed using a 7-point scale from 1 (*not at all close*) to 7 (*extremely close*). Higher scores on this composite measure indicate greater connection (e.g., increased closeness), whereas lower scores indicate greater self-protection (e.g., reduced commitment).

Procedure

This study was presented to participants as a "memory processes" study that examined the relation between personality and memory for written material. The study procedure closely followed that of Cavallo et al. (2009, Study 2) and Cavallo et al. (2012, Studies 1 and 2). Upon

arriving at the lab, participants completed the Rosenberg Self-Esteem Scale, the BFI agreeableness subscale (BFI-A), and a short demographic questionnaire (age, gender, ethnicity, relationship length/status). Participants were then presented with a written passage and asked to read it carefully for the purpose of recalling details from it later. This passage was developed by Cavallo et al. (2009), and acted as the relationship threat. The passage, presented as an excerpt from a forthcoming textbook on close relationships, provided participants with a description of research findings, supposedly found by relationship researchers at the University of Waterloo. Participants first read that the evaluations people make about their relationships are not always accurate, and they then read about a fictional couple who has to work through a number of small conflicts and compromises throughout the week (e.g., deciding what to do on a Saturday night). The passage described how the couple resolved each situation. Following the description of each event, participants were presented with researcher "interpretations," which were written in italicized font. These interpretations described what relationship research supposedly suggests would be the consequences of each event for the relationship. Participants were randomly assigned to receive one of two versions of the passage: threat vs. no threat control.

In the threat condition, the passage explained that people typically *overestimate* the quality and security of their romantic relationships, and that research suggests that people's evaluations of their partner and relationship are much higher than they should be. The researchers' interpretations suggested that although the events and subsequent interactions the couple faced were common, they suggest low regard from the partner, and could lead to worse relationship quality over time.

In the no threat control condition, the passage explained that people often *underestimate* the quality and security of their romantic relationships, and that research suggests that people's

evaluations of their partner and relationship are lower than they should be. The researchers'
interpretations suggested that the couple's behaviour indicated that they have a healthy
relationship.

After reading the passage, participants filled out the relationship and partner appraisal
composite. Interspersed among these items were "quiz" questions that tested participants'
knowledge of the passage. These questions were based on those developed by Cavallo and
colleagues (2009; 2012), and were included for three reasons: (a) to remain consistent with the
"memory" cover story, (b) to keep the threat fresh in participants' minds, and (c) to serve as an
attention check. Six questions assessed the extent to which participants recalled the threatening
(or non-threatening) content of the passage (e.g. "According to research done at the University of
Waterloo, people largely overestimate the quality of their romantic relationships and how
positively their partner sees them;" *True/False*). An additional three questions assessed recall for
mundane details of the passage (e.g., "Where did the couple meet to study together?"). One quiz
question appeared after approximately every three relationship and partner appraisal questions.
Items from the Big Five Inventory – Neuroticism Subscale (John et al., 1991) were also
interspersed throughout the relationship and partner appraisal items in order to better hide my
interest in romantic relationships and to remain consistent with my cover story. Participants were
then probed for suspicion and fully debriefed.

Results

Self-esteem (*M* = 6.32, *SD* =1.45, *Mdn* = 6.50) and agreeableness (*M* = 3.86, *SD* = 0.60,
Mdn = 3.89) were mean-centered for all analyses. The correlation between self-esteem and
agreeableness was *r*(232) = .29, *p* < 001. This correlation is within the range typically found in
the social and personality psychology literature, which spans between .00 and low-mid .30s

(Robins, Tracy, Trzesniewski, Potter, & Gosling, 2001). Univariate outliers were Winsorized to within ±3.29 *SD*s of their mean (Tabachnick & Fidell, 2007). Because I had no reason to believe that these extreme scores reflected errors, I chose to Winsorize and retain univariate outliers rather than dropping them entirely. This method is a conservative approach that avoids giving extreme scores undue leverage. The threat condition (*n* = 112) was coded as "1" and the no threat control condition (*n* = 120) was coded as "-1."

There were no significant gender differences in self-esteem or agreeableness in this or any of the three subsequent studies [although men were marginally lower than were women in agreeableness in Study 3, *t*(269) = -1.74, *p* = .084, and Study 4, *t*(199) = -1.89, *p* = .060]. Similarly, gender was not a significant predictor of the primary outcome of interest (relationship and partner appraisals) in any of the four studies [although women were marginally more connecting than were men in Study 4, *b* = 0.29, *t*(192) = 1.72, *p* = .088]. There were insufficient men, non-binary, transgender, and Two-Spirit persons to examine interactions with gender, but past risk regulation work has generally failed to find moderation by gender (e.g., Cavallo et al., 2012; McCarthy et al., 2017; Murray et al., 2002; 2008).

Relationship and Partner Appraisals

Using multiple regression, I examined the effects of self-esteem, agreeableness, and threat on the relationship and partner appraisals composite measure (i.e., connection vs. self-protection). Recall that the typical risk regulation finding is a condition x self-esteem interaction, whereby HSEs and LSEs diverge in the threat condition, with LSEs reacting self-protectively and HSEs reacting in a connecting way. I expected that agreeableness would modify this interaction, leading to a three-way interaction of self-esteem, agreeableness, and condition, such that in the no threat control condition, there would be no major self-esteem or agreeableness

differences (or if anything, a small main effect of agreeableness). In the threat condition, I expected that LSEs who were higher in agreeableness would respond to a relationship threat in the same way HSEs would—by becoming more connecting, and more relationship and partner promoting. Conversely, I expected that LSEs who were lower in agreeableness would respond as LSEs typically do in risk-regulation studies—by becoming more self-protective than those higher in self-esteem or agreeableness—derogating their partner and their relationship, decreasing their commitment, satisfaction, closeness, and regard from their partners.

Together, self-esteem and agreeableness explained 15% of the variance in relationship and partner appraisals, $F(7, 224) = 6.82$, $p < .001$.[2] The self-esteem by condition interaction typically found in the risk regulation literature was not obtained, nor was the predicted three-way interaction, all $ps > .218$. Instead, three main effects emerged. In general, those who were in the threat condition were less connecting than were those in the control condition (see Figure 1): they rated their relationships and their partners less positively (i.e., they were less connecting), $b = -0.22$, $t(224) = -4.54$, $p < .001$. HSEs were more connecting than were LSEs $b = 0.07$, $t(224) = 2.15$, $p = .033$, and those who were more agreeable were more connecting than those who were less agreeable, $b = 0.32$, $t(224) = 3.88$, $p < .001$.

Because the three-way interaction, $b = 0.07$, $t(224) = 1.24$, $p = .218$, was of *a priori* interest, I conducted exploratory simple slopes analyses to gain additional understanding of the pattern of results. People were less connecting in the threat condition than they were in the no threat control, regardless of their self-esteem or agreeableness, but this effect appeared to be least pronounced for highly agreeable HSEs, $b = -0.30$, $t(224) = -1.83$, $p = .068$, and particularly pronounced for less agreeable HSEs, $b = -0.61$, $t(224) = -2.85$, $p = .005$, suggesting that highly

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[2] Estimates of variance accounted for are based on the adjusted R^2.

agreeable HSEs may have been the most able to defend against the threat, whereas less agreeable HSEs may have been the least able. This latter finding is particularly interesting, given that I expected HSEs to become more connecting following a relationship threat, regardless of how agreeable they were.

Within the threat condition, consistent with my prediction, less agreeable LSEs were marginally less connecting than were their more agreeable counterparts, $b = 0.29$, $t(224) = 1.96$, $p = .051$. However, contrary to my predictions, less agreeable HSEs were less connecting than were their more agreeable HSE peers, $b = 0.42$, $t(224) = 2.77$, $p = .006$.

In the control condition, LSEs who were less agreeable were less connecting than were those who were more agreeable, $b = 0.42$, $t(224) = 2.20$, $p = .029$, whereas there was no difference among HSEs between those who were more or less agreeable, $b = 0.16$, $t(224) = 1.07$, $p = .288$. There was also a marginal difference between less agreeable LSEs and HSEs, where less agreeable LSEs were less connecting than were their HSE counterparts, $b = 0.13$, $t(224) = 1.94$, $p = .053$.

Figure 1. Relationship and partner appraisals as a function of self-esteem, agreeableness, and condition (Study 1).

Relationship and Partner Appraisals (1-7) plotted across Agree -1 SD / Agree +1 SD under Control and Threat conditions, with lines for Self-Esteem -1 SD and Self-Esteem +1 SD.
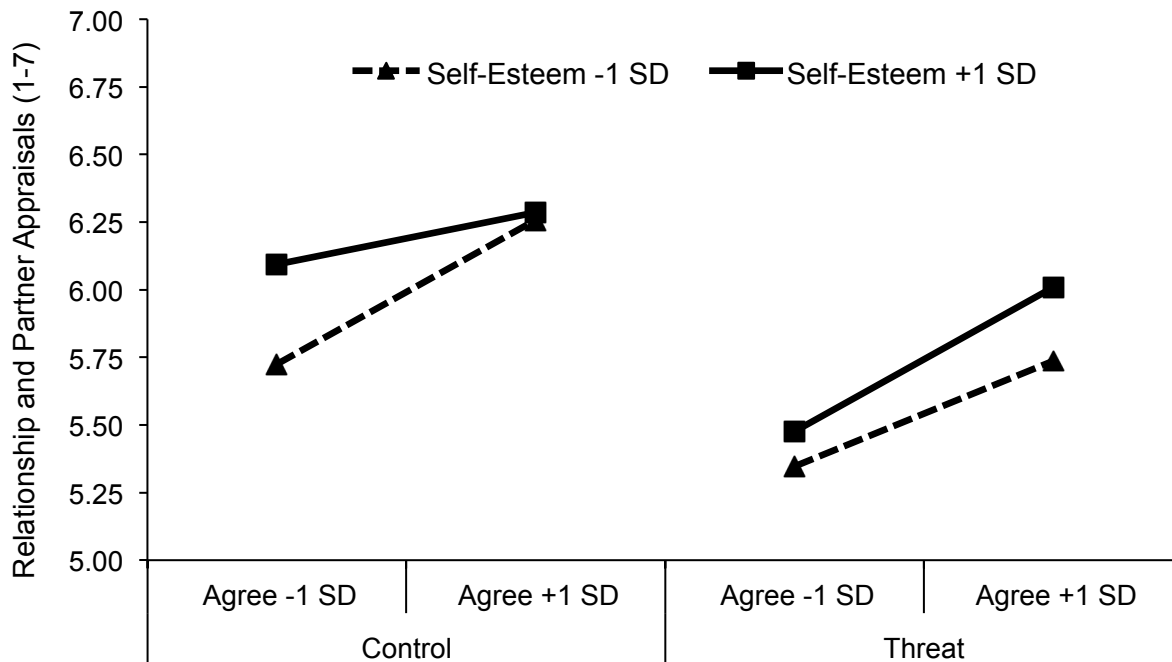
Discussion

I predicted that agreeableness would modify the typical risk regulation finding that people with lower self-esteem self-protect when they feel a threat to security of their relationships. However, the results of Study 1 were more complicated; not only did they not support this prediction, they also did not replicate typical risk-regulation findings. Yet they do suggest that the trait of agreeableness plays a critical role in determining people's thoughts about their partners and their relationships under threat, as well as in normal, non-threatening contexts.

I predicted that only LSE, less agreeable participants would self-protect following a threat (e.g., by downplaying their relationship commitment, derogating their partner, becoming less optimistic about the future of their relationship). Contrary to past work on risk regulation (e.g., Murray et al., 2002), however, I did not observe the typical two-way interaction between self-esteem and condition, whereby under threat, LSEs self-protect whereas HSEs connect, nor did I find the predicted three-way interaction. Instead, everyone, regardless of their self-esteem or agreeableness, appeared to engage in at least some self-protection in the threat, compared to the

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no threat control condition. As Figure 1 shows, everyone appeared to evaluate their partners and relationships more negatively following a threat than they did in the no-threat condition. It is possible that the written passage manipulation was simply too threatening for even HSE or more agreeable participants to defend against.[3] Although this is one possible explanation for the findings in Study 1, though it cannot explain the discrepancies between my work and past research in which HSEs became more connecting following this same threat (e.g., Murray et al., 2002).

Setting aside my failure to replicate the typical risk-regulation findings, what did Study 1 reveal about agreeableness and self-esteem under threat vs. no threat? In the no threat condition, results resembled my prediction of what would occur under threat: Agreeableness moderated self-esteem. Highly agreeable LSEs were just as connecting as were HSEs—only the combination of lower self-esteem and lower agreeableness led to fewer connecting, relationship promoting cognitions when unthreatened. Under threat, however, agreeableness appeared to be more protective than self-esteem. Both LSEs and HSEs, when also higher in agreeableness, were more connecting under threat than were those lower in agreeableness. Those who responded in the most connecting, relationship promoting way to threat were those who were highly agreeable and had higher self-esteem. Unexpectedly, those who appeared to be the least resilient to threat—most self-protective—were participants who were higher in self-esteem, but less agreeable.

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[3] It is also possible that participants appeared to be self-protective in the threat condition not because that condition was truly threatening, but because the no threat control condition acted as a relationship "boost." However, the content of the control group passage was likely relatively similar to commonly held beliefs about relationships, and thus, if anything, may have simply confirmed for people what they already felt. For example, most people would likely not be particularly surprised to learn that being able to compromise with one's partner signals healthy relationship functioning. However, it is still possible that this condition made people feel better about their relationships and partners than they would have otherwise.

Study 2: Varying the Strength of Threat

Given the somewhat unexpected pattern of results in Study 1, the purpose of Study 2 was twofold. First, I aimed to replicate the findings of Study 1. Was the absence of a two-way interaction between self-esteem and condition, normally found in risk regulation research, an anomaly? A second, but related purpose of Study 2, was to shed additional light on the boundary conditions of agreeableness and self-esteem. Would their main and moderating effects vary as a function of the strength of the relationship threat? Like in Study 1, in Study 2, I expected that under non-threatening conditions, self-esteem and agreeableness would have only a small effect on how people viewed their relationships and partners. I also expected that under moderately threatening conditions, only LSE, less agreeable individuals would engage in self-protective distancing and relationship derogation, whereas HSEs and those higher in agreeableness would engage in relationship promotion and connection. Under highly threatening contexts (such as those seemingly found using the written passage threat in Study 1), I predicted that agreeableness and self-esteem may be only minimally protective. Specifically, based on the results of Study 1, I expected that neither HSEs, nor highly agreeable people, would be able to overcome a highly threatening manipulation, or if anything, only highly agreeable HSEs would be able to do so.

Method

Participants

Two hundred and eighty-two undergraduate students involved in romantic relationships participated in exchange 0.50 course credits. Twenty-four participants who did not take the study seriously (e.g., by selecting the same answer for all items in a scale, or by admitting they paid little attention, did not answer honestly, or did not take the study seriously) or who failed attention checks were excluded, resulting in a final sample of 258 (197 women, 60 men, 1

unspecified; M_{age} = 21 years, SD = 5; Mdn = 19). Participants had been in their relationship for

an average of 1.9 years (SD = 2.3; Mdn = 1.2); 75% were exclusively dating their partner, 10%

were casually dating, 10% were cohabiting, 4% were married, <1% were engaged, and 2% did

not specify their relationship status.[4]

Materials

Self-esteem and agreeableness. As in Study 1, I used the Rosenberg (1965) self-esteem

scale (α = .92) and the BFI-A (John et al., 1991; α = .73).

Relationship and partner appraisals. Appraisals of the relationship and the partner, the

dependent variables, were assessed via a modified 18-item version of the measure used in Study

1 (α = .72). Three unconditional regard items that were included in Study 1 were removed from

the relationship and partner appraisals composite and instead used to assess unconditional regard

as a manipulation check (which included all the items of an unconditional regard scale).

Trust. Trust was measured using a shortened, 6-item (α = .89) version of the Perceived

Partner Responsiveness Scale (Reis & Carmichael, 2006, as cited by Reis, Crasta, Rogge,

Maniaci, & Carmichael, 2018). Items such as "My partner esteems me, shortcomings and all"

were rated from 1 (*not true at all*) to 9 (*completely true*). This measure has been used in past

relationships research to measure trust (e.g., McCarthy et al., 2017), and was included so that I

could explore trust as a possible mediator of the effects of self-esteem and agreeableness on

connection vs. self-protection.

Relationship security. A 3-item measure (α = .78) based on Murray et al.'s (2005) work

assessed relationship security with items such as "I am confident my partner will always want to

stay in our relationship" rated from 1 (*strongly disagree*) to 7 (*strongly agree*). This measure was

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[4] Percentages add to slightly over 100 due to rounding.

included as a manipulation check to ensure that participants' relationship security was in fact threatened.

Unconditional regard. Murray and colleagues' (2002) 9-item measure ($\alpha = .87$) assessed unconditional regard using items such as "I am confident my partner will always see beyond my faults and see the best in me" rated from 1 (*not at all true*) to 7 (*completely true*). This measure has been used to assess perceptions of regard following relationship threats (Murray et al., 2002), and was included as an additional manipulation check for feelings of regard from one's partner. Unconditional regard and relationship security were positively associated, $r(258) = .77$, $p < .001$.

Felt uncertainty. McGregor and colleagues' (2001) scale ($\alpha = .92$) assessed the extent to which participants were feeling seven adjectives, including "uncomfortable," "anxious," and "calm," on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). This instrument was included as a final manipulation check to assess the extent to which the threats led participants to feel generally uncertain, and it was negatively correlated with both relationship security, $r(258) = -.30$, $p < .001$, and unconditional regard, $r(258) = -.35$, $p < .001$. Past research has demonstrated that this measure is effective for measuring uncertainty in response to threats to personally relevant goals (McGregor, Prentice, & Nash, 2013).

Procedure

This study closely followed the procedure used in Study 1, with two main adjustments: (a) a third condition was added, as I will describe, and (b) the study was delivered online, rather than in the laboratory. Upon signing up for the study via the university's psychology participant pool, participants were directed to the study, which was delivered on Qualtrics.com. Participants

first completed the Rosenberg Self-Esteem Scale, BFI-A, the measure of trust, and a short demographic measure (age, gender, ethnicity, and relationship length/status).

Participants were then randomly assigned to one of three conditions: stronger threat, weaker threat, or no threat control. The stronger threat and no threat conditions used the threat and no threat written passages from Study 1, respectively. In the weaker threat group, participants were asked to think about the sides of themselves that they would prefer their romantic partners not see. After thinking about these hidden sides, participants were told that our research has shown that partners eventually discover each other's negative, hidden sides, and conflicts often develop as a result (Murray et al., 2002). I chose this manipulation, called the "secret selves" manipulation, as a "weaker" threat than the written passage manipulation, based on the effect sizes of each found in past research (e.g., Murray et al., 2002).

After the manipulation, participants filled out measures assessing their relationship and partner appraisals, and the three manipulation check measures: relationship security (Murray et al., 2005), unconditional regard (Murray et al., 2002), and felt uncertainty (McGregor et al., 2001). Participants were then probed for suspicion and attention, and were fully debriefed.

Results

Self-esteem ($M = 6.21$, $SD = 1.58$, $Mdn = 6.45$) and agreeableness ($M = 3.80$, $SD = 0.55$, $Mdn = 3.78$) were mean-centered and univariate outliers were Winsorized as in Study 1. The correlation between self-esteem and agreeableness was $r(258) = .26$, $p < .001$. The threat (strong threat $n = 79$; weak threat $n = 92$) and control ($n = 87$) conditions were dummy coded for analysis.

Relationship Security

This instrument was included to examine whether the manipulation threatened relationship security, as intended. Overall, I predicted that participants in the threat conditions would report lower levels of relationship security than would those in the control condition. I further expected that those in the stronger threat condition would report feeling less secure than would those in the weaker threat or control conditions. However, I did expect that these effects may be moderated by self-esteem and agreeableness. Specifically, I expected that those who were higher in self-esteem, higher in agreeableness, or both, may appear to be less threatened than would those who were lower self-esteem and/or agreeableness.

The overall effect of self-esteem, agreeableness, and condition explained 5% of the variance in relationship security, $F(11, 246) = 2.31$, $p = .010$. On its own, condition was marginally associated with relationship security, $F(2, 255) = 2.42$, $p = .091$. Participants in the stronger threat condition felt less relationship security than did those in the weaker threat condition, $b = -0.40$, $t(253) = -2.55$, $p = .011$ (see Figure 2). No other between-condition differences were significant, $ps > .190$. There was a marginal main effect of self-esteem, $b = 0.08$, $t(253) = 1.85$, $p = .065$, and a main effect of agreeableness, $b = 0.27$, $t(253) = 3.25$, $p = .027$, such that people who were higher in self-esteem or agreeableness reported higher levels of relationship security.

These main effects were qualified by a marginal interaction of self-esteem, agreeableness, and condition, $F(2, 246) = 2.82$, $p = .062$. Highly agreeable HSEs felt less relationship security in the stronger threat condition compared to the no threat control, $-b = 0.52$, $t(246) = -2.16$, $p = .032$, suggesting that stronger threat was indeed threatening for this combination of self-esteem and agreeableness. Interestingly, less agreeable HSEs felt more

secure in their relationships in the weaker threat condition than they did in the control, $b = 0.92$, $t(246) = 2.50$, $p = .013$, and stronger threat conditions, $b = 0.86$, $t(246) = 2.28$, $p = .024$. No other between-condition differences were significant, all ps > .168.

Further simple slopes analyses revealed that in the control condition, highly agreeable HSEs felt more relationship security than did less agreeable HSEs, $b = 0.66$, $t(246) = 2.51$, $p = .013$, and marginally more relationship security than did highly agreeable LSEs, $b = 0.16$, $t(246) = 1.89$, $p = .060$. No other within-condition differences were significant in the control condition, all ps > .267.

In the weaker threat condition, highly agreeable LSEs felt marginally more secure than did less agreeable LSEs, $b = 0.44$, $t(246) = 1.88$, $p = .061$, and just as secure as highly agreeable HSEs, $t(246) < 1$. Less agreeable HSEs reported feeling more relationship security than did less agreeable LSEs, $b = 0.27$, $t(246) = 2.57$, $p = .011$. No other within-condition differences were significant in the weaker threat condition, all ps > .345.

Within the stronger threat condition, no self-esteem or agreeableness differences were significant, all ps > .591, suggesting that, as predicted, self-esteem and agreeableness made less of a difference in the stronger threat condition.

Figure 2. Relationship security as a function of self-esteem, agreeableness, and condition (Study 2).
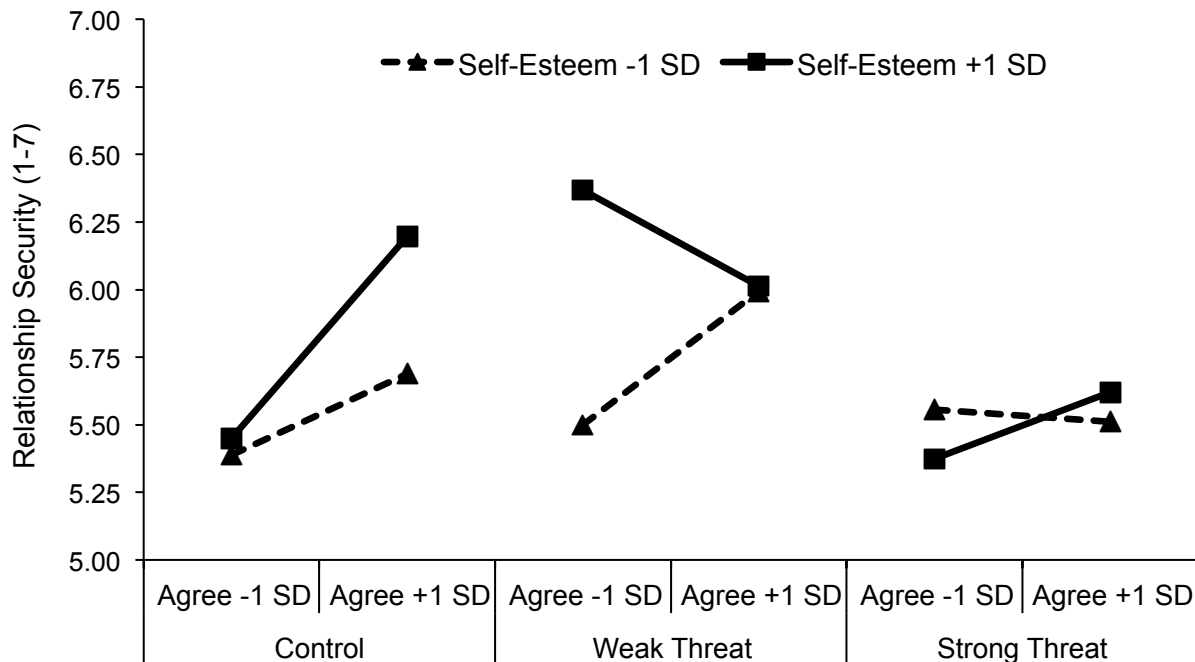
Unconditional Regard

As an additional manipulation check, I expected that participants in the threat conditions would report feeling less unconditionally regarded by their partners than would those in the control condition. Paralleling my predictions for relationship security, I also predicted that those in the stronger threat condition would feel less unconditionally regarded than would those in the weaker threat or control conditions. I again expected that these effects may be moderated by self-esteem and agreeableness—that those who were higher self-esteem, higher agreeableness, or higher in both, may appear to be less threatened, and thus, more unconditionally regarded, than would those who were lower self-esteem and agreeableness.

The overall omnibus effect of self-esteem, agreeableness, and condition explained 7% of the variance in unconditional regard, $F(11, 246) = 2.73$, $p = .002$. There was no main effect of condition, $F(2, 255) = 1.07$, $p = .345$. However, there was a three-way interaction among self-esteem, agreeableness, and condition, $F(2, 246) = 3.47$, $p = .033$. Less agreeable HSEs felt more highly regarded by their partners in the weaker threat condition compared to in the control

condition, $b = 0.72$, $t(246) = 2.28$, $p = .023$, and the stronger threat condition, $b = 0.65$, $t(246) = 2.00$, $p = .047$ (see Figure 3). No other between condition differences were significant, all ps > .127.

Examination of within-condition simple slopes within conditions revealed that in the control condition, highly agreeable HSEs felt more regarded by their partners than did less agreeable HSEs, $b = 0.64$, $t(246) = 2.83$, $p = .005$, and more regarded than did highly agreeable LSEs, $b = 0.16$, $t(246) = 12.13$, $p = .034$. No other within-condition differences were significant in this condition, all ps > .335.

In the weaker threat condition, highly agreeable LSEs felt more regarded than did less agreeable LSEs, $b = 0.52$, $t(246) = 2.55$, $p = .011$. Less agreeable HSEs also felt more regarded than did less agreeable LSEs, $b = 0.22$, $t(246) = 2.48$, $p = .014$. No other within-condition differences were significant, all ps > .557. This pattern is similar to what I had originally predicted for the threat condition in Study 1, and is also consistent with my predictions for Study 2. Within the stronger threat condition, no differences were significant, all ps > .121.

There were main effects of both self-esteem, $b = 0.08$, $t(253) = 2.19$, $p = .030$, and agreeableness, $b = 0.33$, $t(253) = 3.25$, $p = .001$. On average, people who were higher in self-esteem or more agreeable reported feeling more unconditional regard from their partner.

Taken together, the between-condition results of the first two manipulation checks suggest that the stronger threat may have been relatively threatening compared to the weaker threat and control condition, and perhaps especially so for some HSEs.

Figure 3. Unconditional regard as a function of self-esteem, agreeableness, and condition (Study 2).

y-axis: Unconditional Regard (1-7), ranging from 5.00 to 7.00

Legend: - ▲ - Self-Esteem -1 SD   ─■─ Self-Esteem +1 SD

x-axis groups:
Agree -1 SD | Agree +1 SD — Control
Agree -1 SD | Agree +1 SD — Weak Threat
Agree -1 SD | Agree +1 SD — Strong Threat

Felt Uncertainty

As a final manipulation check, I expected that participants in the threat conditions would report feeling more uncertain than would those in the control condition. However, I expected that those who were the most secure in their relationships (i.e., HSEs and highly agreeable individuals) would report feeling the least amount of uncertainty overall, and that even when threatened, they would still manage to remain somewhat assured.

The omnibus effect of self-esteem, agreeableness, and condition explained 4% of the variance in felt uncertainty, $F(11, 246) = 1.92$, $p = .038$. There was no main effect of condition, $F(2, 255) = 0.92$, $p = .399$. However, there was a marginal interaction among self-esteem, agreeableness, and condition, $F(2, 246) = 2.35$, $p = .097$. Highly agreeable HSEs felt more uncertain in the weaker threat than in the control condition, $b = 0.55$, $t(246) = 2.28$, $p = .023$ (see Figure 4). No other between condition differences were significant, all ps > .170. The results of this manipulation check suggest that the threat conditions may not have effected how uncertain
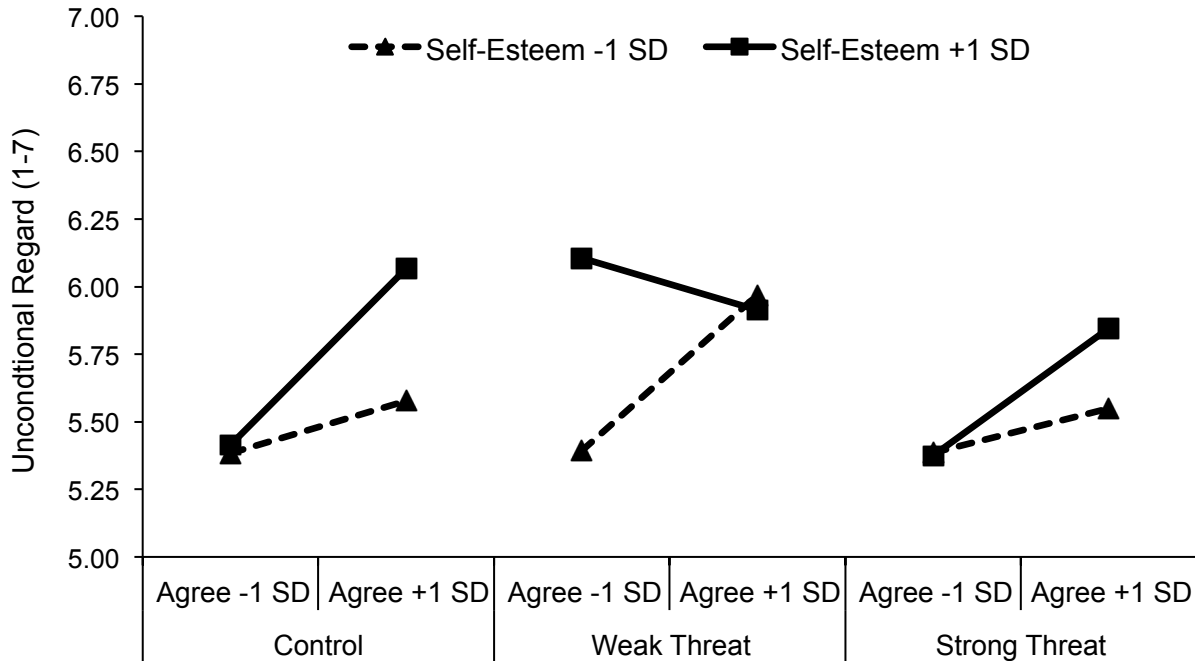
participants felt, with the exception of highly agreeable HSEs, who seemed particularly unsettled in the weaker threat condition.

Further examination of the simple slopes revealed that in the control condition, highly agreeable HSEs felt marginally less uncertainty than did highly agreeable LSEs, $b = -0.14$, $t(246) = -2.18$, $p = .056$. Less agreeable HSEs felt marginally less uncertainty than did less agreeable LSEs, $b = -0.13$, $t(246) = -1.70$, $p = .091$. No other within-condition differences were significant, all ps > .329.

In the weaker threat condition, less agreeable HSEs reported feeling less uncertainty than did less agreeable LSEs, $b = -0.18$, $t(246) = -2.05$, $p = .041$. No other within-condition differences were significant, all ps > .108.

Within the stronger threat condition, highly agreeable HSEs felt less uncertainty than did highly agreeable LSEs, $b = -0.20$, $t(246) = -2.18$, $p = .031$. No other within condition differences were significant, all ps > .139.

Last, there was a main effect of self-esteem, such that overall, HSEs felt less uncertainty than did LSEs, $b = -0.11$, $t(253) = -2.97$, $p = .003$.

Figure 4. Felt uncertainty as a function of self-esteem, agreeableness, and condition (Study 2).

Figure with y-axis "Felt Uncertainty (1-7)" ranging from 2.50 to 4.50. Legend: Self-Esteem -1 SD (dashed line with triangle markers), Self-Esteem +1 SD (solid line with square markers). X-axis groups: Control, Weak Threat, Strong Threat, each with Agree -1 SD and Agree +1 SD.

Relationship and Partner Appraisals

Next, I examined the effects of self-esteem, agreeableness, and condition on the dependent variable, relationship and partner appraisals. I expected to find a three-way interaction. I predicted that in the no threat control condition, self-esteem and agreeableness would have only a small effect on how people appraised their relationships and their partners, such that most people would rate their relationships and partners relatively positively. In the weaker threat condition, I predicted that only LSE, less agreeable people would engage in self-protection: Their relationship and partner appraisals would be lower than in the control condition, and lower than those of people higher in self-esteem or agreeableness. Last, in the stronger threat condition, I expected to replicate Study 1: that all participants, regardless of their level of self-esteem or agreeableness, would self-protect in the stronger threat condition.

The omnibus effect of self-esteem, agreeableness, and threat was marginally significant and explained 3% of the variance in relationship and partner appraisals, $F(11, 246) = 1.61$, $p = .097$. A main effect of agreeableness emerged, such that overall, people who were more

agreeable responded in a more connecting, relationship promoting manner, $b = 0.13$, $t(253) =$ 2.00, $p = .046$. However, this main effect was qualified by the three-way interaction among self-esteem, agreeableness, and condition, $F(2, 246) = 3.29$, $p = .039$.

Examination of the simple effects revealed that, contrary to my original predictions, but consistent with Study 1, highly agreeable HSEs were actually less connecting and relationship promoting in the stronger threat than in the control condition, $b = -0.26$, $t(246) = -2.06$, $p = .041$. The results are depicted in Figure 5. No other between condition differences were significant, all ps > .116. In other words, there were no condition effects for any of the other combinations of self-esteem and agreeableness.

Within the stronger threat condition, as predicted, no self-esteem or agreeableness differences were significant, all ps > .464.

In the weaker threat condition, consistent with my prediction, highly agreeable LSEs were more relationship promoting than were less agreeable LSEs, but only marginally, $b = 0.23$, $t(246) = 1.85$, $p = .065$. No other within-condition differences were significant, all ps > .140.

Within the control condition, highly agreeable HSEs were more relationship promoting than were highly agreeable LSEs, $b = 0.11$, $t(246) = 2.51$, $p = .013$, and less agreeable HSEs, $b = 0.34$, $t(246) = 2.46$, $p = .015$. There was no difference between LSEs who were more or less agreeable, $t(246) < 1$.

Figure 5. Relationship and partner appraisals as a function of self-esteem, agreeableness, and condition (Study 2).

Relationship and Partner Appraisals (1-7)

Legend: Self-Esteem -1 SD, Self-Esteem +1 SD

X-axis: Agree -1 SD | Agree +1 SD (Control), Agree -1 SD | Agree +1 SD (Weak Threat), Agree -1 SD | Agree +1 SD (Strong Threat)
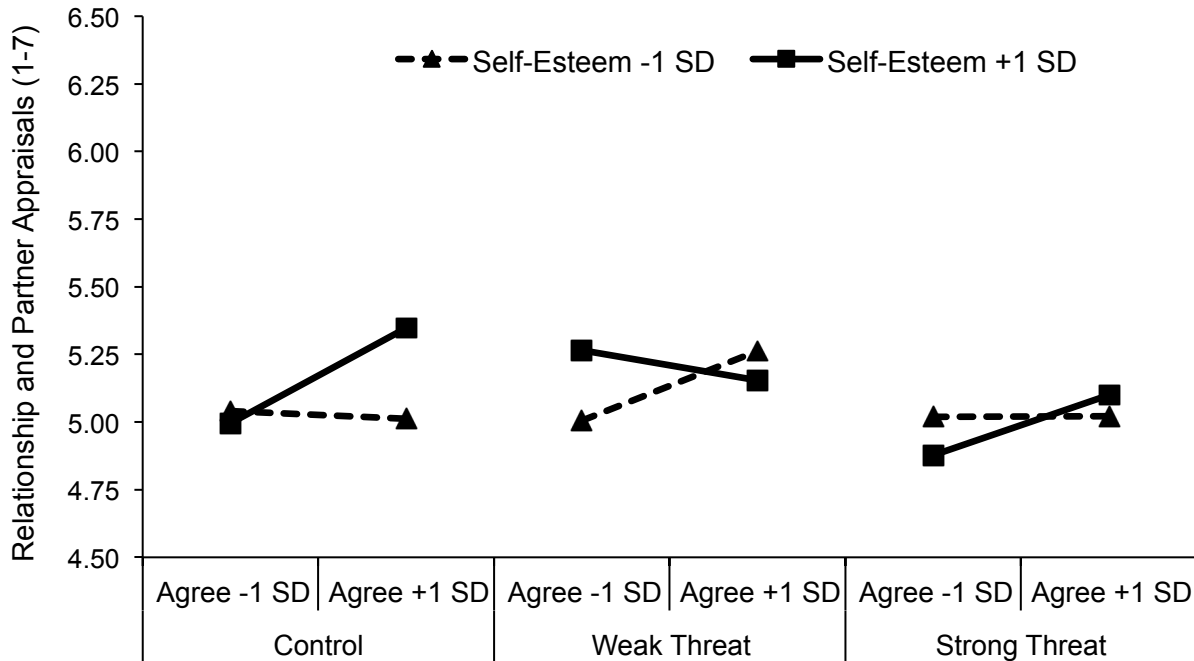
Exploratory Mediation Analyses

To examine trust as a possible mechanism for the effects of self-esteem and agreeableness on risk regulation, I conducted bias-corrected mediation analysis (PROCESS Model 4; Hayes, 2018).[5] First, I ran a model in which the interaction of self-esteem and agreeableness was the predictor, relationship and partner appraisals were the dependent variable, trust was the mediator, and the main effects of self-esteem, agreeableness, and condition were included as covariates.[6] Using 10,000 bootstrapped samples and 95% confidence intervals, the interaction of self-esteem and agreeableness did not predict trust, $b = 0.04$, $p = .651$, 95% CI [-0.14, 0.23]. Though trust was associated with relationship and partner appraisals, $b = 0.21$, $p < .001$, 95% CI [0.17, 0.25], it did not mediate an association between the interaction of self-esteem and agreeableness, and relationship and partner appraisals, $b = 0.01$, 95% CI [-0.03,

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[5] Lacking reason to believe that the indirect effects of self-esteem, agreeableness, and their interaction on relationship and partner appraisals though trust would be moderated by threat condition, Model 4, a mediation model, was chosen in favour of Model 8, a moderated mediation model.

[6] Results do not differ regardless of whether condition is included or excluded as a covariate.

0.05]. However, in order to examine further the possible mediating role of trust, models with the main effects of self-esteem and agreeableness predicting relationship and partner appraisals through trust were run separately.

With self-esteem as the predictor, trust as the mediator, and agreeableness and condition included as covariates, self-esteem marginally predicted trust, $b = 0.10$, $p = .073$, 95% CI [-0.01, 0.22], and trust in turn predicted relationship and partner appraisals, $b = 0.21$, $p < .001$, 95% CI [0.17, 0.25]. The indirect effect of self-esteem on relationship and partner appraisals through trust, however, was not significant, $b = 0.02$, 95% CI [-0.01, 0.05].

With agreeableness as the predictor, trust as the mediator, and self-esteem and condition included as covariates, agreeableness predicted trust, $b = 0.60$, $p < .001$, 95% CI [0.27, 0.92], which in turn predicted relationship and partner appraisals, $b = 0.21$, $p < .001$, 95% CI [0.17, 0.25]. The indirect effect of agreeableness through trust was significant, $b = 0.12$, 95% CI [0.05, 0.21], suggesting that the association between agreeableness and risk regulation tendencies may at least in part be accounted for by trust.

Results of further exploratory mediation analyses with unconditional regard and relationship security—both of which are conceptually similar to trust (Cavallo et al., 2013; Murray et al., 2006)—as individual mediators, were relatively consistent with these findings. A total of six mediation analyses were conducted, each with self-esteem, agreeableness, or their interaction as the predictor, relationship and partner appraisals as the outcome, unconditional regard or relationship security as the mediator, and condition included as a covariate. The indirect association between agreeableness and relationship and partner appraisals through unconditional regard was significant, $b = 0.13$, 95% CI [0.05, 0.23], as was their indirect association through relationship security $b = 0.09$, 95% CI [0.01, 0.19]. Self-esteem was also

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marginally mediated by unconditional regard, $b = 0.03$, 95% CI [0.00, 0.06]. Given the correlational nature of these data, however, no causal inferences can be made from these analyses.

Discussion

In Study 2, I included a stronger and weaker threat condition, in part to test the possibility that Study 1 did not yield the usual risk regulation effects of self-esteem because the threat was too strong. The results again failed to yield the typical self-esteem by condition pattern obtained in risk regulation research, whether one compares the weaker or stronger threat conditions to the control condition. By and large, the results of the manipulation checks suggest that the threat manipulations were only somewhat threatening to people's relationships. It is notable, however, that the stronger threat condition did appear to eliminate differences between the different combinations of higher and lower self-esteem and agreeableness, supporting my prediction that self-esteem and agreeableness would not affect risk regulation tendencies in the stronger threat condition.

Taken together, the results of Study 2 suggest that agreeableness, and to a somewhat lesser degree, self-esteem, influence self-protection and connection tendencies. These effects do at times vary based on the strength of the threat—though not always in the way I expected.

Although the results did not fit the typical risk regulation pattern, results involving the two threat conditions did fit with Study 1. Under particularly threatening contexts—the stronger threat condition—I expected that agreeableness and self-esteem may be only minimally protective (as appeared to be true in Study 1). Consistent with this prediction, in the stronger threat condition, results did not depend on these traits. The stronger threat appeared difficult for anyone to surmount—even highly agreeable HSEs. In the weaker threat condition, results were

consistent with my original prediction about agreeableness moderating the negative effects of lower self-esteem; agreeableness did seem to buffer LSEs from their typical self-protection tendencies: They did not rate their partners or relationships as low as did less agreeable LSEs.

However, results in the no threat control condition cast doubt on interpreting these higher ratings as a defensive response to threat; self-esteem and agreeableness were associated with relationship and partner appraisals even in the control condition. In this non-threatening condition, people who were higher in both self-esteem and agreeableness evaluated their partners and relationships more positively than did any other combination of self-esteem and agreeableness. I had predicted, in keeping with risk regulation research, that self-esteem would have only a minor influence, if any, under non-threatening conditions. I expected much the same for agreeableness. Yet the combination of self-esteem and agreeableness did appear to influence how people viewed their relationships and partners in non-threatening circumstances. It appears that highly agreeable HSEs harbor far more connecting and relationship-promoting cognitions than do other groups, especially when not under threat. Results of the exploratory mediation analyses suggest that some of these associations may be at least partially explained by trust.

Although the results of Study 2 were puzzling in that they did not concur with typical risk regulation findings, they are consistent with those of Study 1 in showing that agreeableness is important for risk regulation. I therefore sought to explore agreeableness even further by examining a domain in which agreeableness may be especially important. In Study 3, I examined whether an additional outcome measure would help shed light on the role of agreeableness in risk regulation. Given previous evidence of the importance of the trait of agreeableness for interpersonal behaviours during conflict, I included a measure that assesses self-reported behaviours in response to negative interpersonal interactions, and that has been used in prior

research to examine the role of agreeableness in chronic interpersonal behavioural tendencies (Perunovic & Holmes, 2008).

Study 3: Accommodation as an Outcome

In Study 3, I investigated whether agreeableness and self-esteem would interact to predict accommodation tendencies following a relationship threat. Accommodation refers to a person's tendency to, when their partner has behaved badly, inhibit the urge to engage in destructive, self-protective responses, and instead engage in constructive, relationship-promoting responses (Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991). Research has shown that destructive responses in particular (e.g., retaliating, ignoring the issue), lead to greater couple distress (Rusbult, Johnson, & Morrow, 1986). In developing and refining the construct of accommodation, Rusbult et al. (1991) demonstrated that partners who were more satisfied, more committed, placed greater importance on their relationship, or who were more willing to take their partner's perspective, were more likely to engage in accommodative responses. Notably, Rusbult and colleagues (1991) also found support for a negative association between self-esteem and accommodation (e.g., calmly voicing one's concerns, forgiving). I, however, predicted the reverse association: that LSEs would be less accommodating, and thus, less connecting and more self-protecting, than would HSEs. Participants in Rusbult et al.'s studies, however, were unthreatened: The measure of accommodation was used to measure participants' chronic accommodation tendencies in the absence of a relationship threat. I predicted, in keeping with risk regulation theory, that the presence of a relationship threat would affect people's intentions to use accommodation. For example, under normal circumstances, LSEs may be more likely to accommodate than may HSEs, because they believe they have fewer quality relationship alternatives (Rusbult et al., 1991). However, under threat, risk regulation theory would predict

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that LSEs would self-protect by, among other things, downplaying the importance of their relationship and reducing their commitment—two reactions that have been associated with reduced accommodation. Thus, I expected threatened LSEs to be less likely to accommodate following a relationship threat than would their HSE peers.

I also expected, however, that agreeableness would moderate the relation between self-esteem and accommodation, particularly due to its association with forgiveness, empathy, and constructive conflict resolution (Costa & McCrae, 1992; Côté & Moskowitz, 1998; Field et al., 2014; Goldberg, 1992; Graziano, Habashi, Sheese, & Tobin, 2007; Graziano et al., 1996; Jensen-Campbell et al., 2003; Wood & Bell, 2008). Specifically, I predicted that people high in agreeableness or self-esteem would report behaviours characterized by high accommodation tendencies, such as responding constructively to conflicts, and holding more positive beliefs about their relationship. I expected that only LSEs who were lower in agreeableness would report behaviours characterized by low accommodation, such as retaliating against their partner with anger following a conflict, and holding negative beliefs about their relationship. I expected that these associations would be strongest among threatened participants.

Method

Participants

Three hundred and fourteen undergraduate students in romantic relationships participated in exchange 0.50 course credits. Forty participants who did not take the study seriously, failed attention checks, or had seen the manipulation in a prior study were excluded, resulting in a final sample of 274 (219 women, 52 men, 2 non-binary persons, 1 transgender man; M_{age} = 21 years, SD = 5; Mdn = 20). On average, participants had been in their relationship for 2.3 years (SD =

4.2; *Mdn* = 1.2); 74% were exclusively dating their partner, 10% were casually dating, 8% were cohabiting, 6% were married, and 2% were engaged.

Materials

Self-esteem. Rosenberg's (1965) self-esteem scale (α = .93) assessed global self-esteem.

Agreeableness. The BFI-A (John et al., 1991) assessed agreeableness (α = .75).

Accommodation. Rusbult, Verette, Whitney, Slovik, and Lipkus' (1991) 16-item measure assessed future accommodation tendencies. The scale assessed four dimensions of accommodation, two of which I suggest map onto the risk regulation concepts of self-protection and connection: (a) exit, which should reflect self-protection (α = .77; e.g., "Next time my partner is rude to me, I will feel so angry I will want to walk right out the door"), (b) neglect, which should reflect self-protection (α = .74; e.g., "Next time my partner does something thoughtless, I will avoid dealing with the situation"), (c) voice, which should reflect connection (α = .83; e.g., "Next time my partner says something really mean, I will talk to my partner about what's going on, trying to work out a solution"), and (d) loyalty, which should reflect connection (α = .73; e.g., "Next time my partner behaves in an unpleasant manner, I will forgive my partner and forget about it"). Each of the four question stems (i.e., "Next time my partner is rude to me," "…does something thoughtless," "…says something really mean," "…behaves in an unpleasant manner") were asked once of each of the four accommodation dimensions. Items were rated from 1 (*very strongly disagree*) to 9 (*very strongly agree*). Exit, $r(274) = -.57, p < .001$, and neglect, $r(274) = -.47, p < .001$, were negatively associated with voice, and positively associated with each other, $r(274) = .60, p < .001$. Exit and loyalty were uncorrelated, $r(274) = -.07, p < .267$, but loyalty was positively associated with both voice, $r(274) = .20, p = .001$, and neglect, $r(274) = .32, p < .001$. This measure of accommodation demonstrates good discriminant and

convergent validity with actual accommodative behaviours in close relationships (Overall &

Sibly, 2010).

Relationship and partner appraisals. Appraisals of one's relationship and partner were

assessed using the same measure used in Studies 1 and 2 (α = .94), with the addition of one

unconditional regard item (Murray et al., 2002).

Relationship Security. The same three items (α = .75; Murray et al., 2005) used in Study

2 assessed relationship security. This measure was again included as a manipulation check to

examine whether participants' relationship security was threatened.

Procedure

This experiment was presented to participants as a study about personality and writing

style. Participants were told that I was interested in how personality factors might influence their

thoughts about a new writing style used by psychologists at the University of Waterloo. After

signing up, participants were directed to the online study on Qualtrics.com. Participants first

completed a short demographic measure (age, gender, ethnicity, and relationship length/status),

the Rosenberg Self-Esteem Scale, and the BFI-A.

Participants were then randomly assigned to one of two conditions: threat or no threat

control. These conditions were the same as those in Study 1, with one exception: Participants

were told that they would be asked to provide feedback on the written passage (e.g., how easy

the passage was to comprehend, whether the information was interesting, whether the layout was

pleasant). Following this relationship threat (or no threat), participants completed the

accommodation measure, followed by measures of relationship and partner appraisals, and

relationship security. In order to remain consistent with the cover story, participants were then

asked for their feedback on the written passage. They were then probed for suspicion and attention, and fully debriefed.

Results

Self-esteem ($M = 6.11$, $SD = 1.74$, $Mdn = 6.30$) and agreeableness ($M = 3.75$, $SD = 0.59$, $Mdn = 3.78$) were mean-centered and univariate outliers were Winsorized. The correlation between self-esteem and agreeableness was $r(274) = .17$, $p = .004$. The threat ($n = 139$) and no threat control ($n = 135$) conditions were effects coded for analysis (threat = 1; no threat control = -1).

Relationship Security

As in Study 2, I predicted that participants in the threat condition would report feeling less relationship security than would those in the control condition, but that these effects may be moderated by self-esteem and agreeableness. In particular, I predicted that those who were higher in either self-esteem or agreeableness, or both, would report feeling more relationship security than would those who were lower self-esteem and/or agreeableness.

Together, self-esteem, agreeableness, and condition accounted for 11% of the variance in relationship security, $F(7, 266) = 4.81$, $p < .001$. Results are shown in Figure 6. Although there were no main effects of, or interactions with, condition (all ps > .405), self-esteem and agreeableness interacted to predict relationship security, $b = -0.17$, $t(266) = -3.03$, $p = .003$. Less agreeable HSEs felt more secure than did less agreeable LSEs [control: $b = 0.22$, $t(266) = 2.78$, $p = .006$; threat: $b = 0.24$, $t(266) = 3.80$, $p < .001$]. There were no self-esteem differences at higher agreeableness, ps > .239, but highly agreeable LSEs felt more secure in their relationship than did less agreeable LSEs [control: $b = 0.54$, $t(266) = 2.61$, $p = .010$; threat: $b = 0.48$, $t(266) = 2.84$, $p = .005$]. Overall, HSEs, $b = 0.13$, $t(266) = 3.60$, $p < .001$, and highly agreeable people, $b =$

0.22, $t(266) = 1.98$, $p = .048$, felt more secure in their relationships than did those who were lower in self-esteem or agreeableness, respectively. This pattern of results suggests, however, that the threat manipulation did not have an effect on participants' feelings of relationship security.

Figure 6. Relationship security as a function of self-esteem, agreeableness, and condition (Study 3).
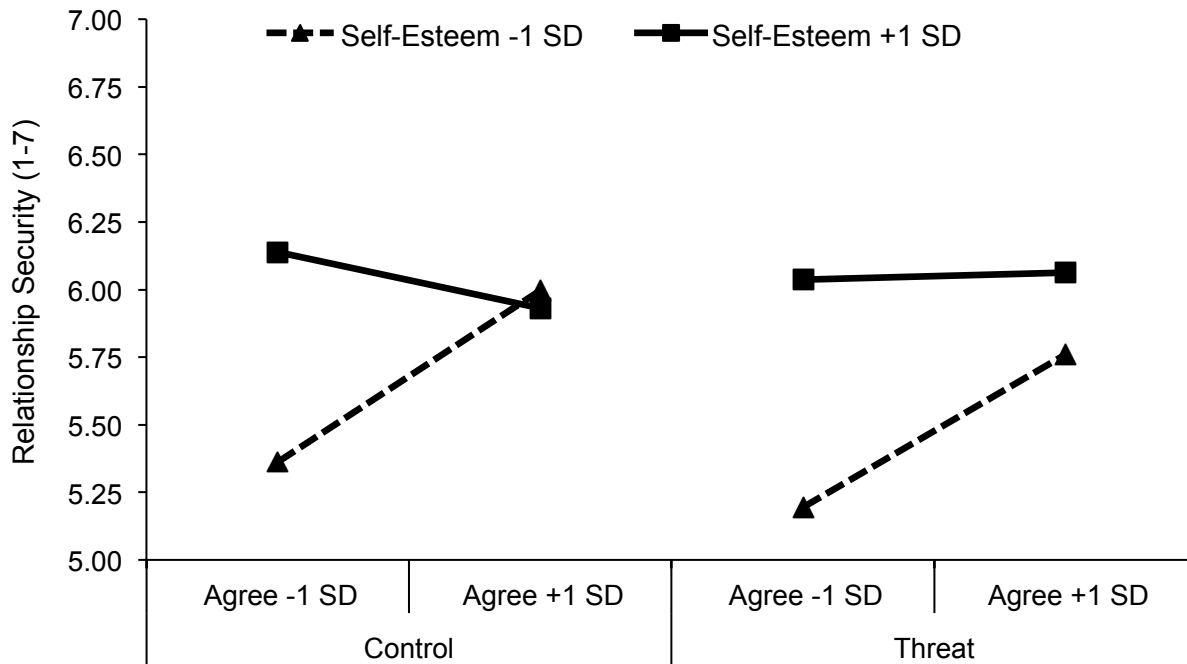
Relationship and Partner Appraisals

I predicted that highly agreeable people—both HSEs and LSEs—would engage in more connection, as opposed to self-protection, and that these associations would be especially evident in the threat condition. The combination of self-esteem, agreeableness, and condition accounted for 10% of the variance in relationship and partner appraisals, $F(7, 266) = 5.50$, $p < .001$. Results are shown in Figure 7. Interestingly, and in line with a risk regulation connection effect, highly agreeable HSEs were marginally more connecting in the threat compared to the control condition, $b = 0.37$, $t(266) = 1.96$, $p = .051$.

Contrary to my hypotheses, there was no main effect of, nor interaction with, condition, all ps > .116. These findings suggest that this more subtle method of administering the written passage manipulation may be less powerful than it is when direct attention is called to the content (as it was in Studies 1 and 2).

Although condition effects did not emerge, analyses did yield effects for self-esteem and agreeableness. On average, those who were higher in self-esteem, $b = 0.12$, $t(266) = 3.97$, $p < .001$, or agreeableness, $b = 0.23$, $t(266) = 2.59$, $p = .010$, were more connecting and relationship-promoting—they rated their partners and their relationships more positively, felt more optimistic about the future, and felt more positively regarded than did those who were lower in self-esteem or agreeableness.

Self-esteem and agreeableness also interacted to predict relationship and partner appraisals, $b = -0.11$, $t(266) = -2.30$, $p = .022$. Simple slopes analyses revealed that regardless of condition, less agreeable HSEs were more relationship promoting than were less agreeable LSEs [control: $b = 0.17$, $t(266) = 2.60$, $p = .010$; threat: $b = 0.19$, $t(266) = 3.71$, $p < .001$]. Highly agreeable HSEs were also more relationship promoting than were highly agreeable LSEs, but only in the threat condition, $b = 0.15$, $t(266) = 2.40$, $p = .017$. Highly agreeable LSEs were more relationship promoting than were less agreeable LSEs [control: $b = 0.45$, $t(266) = 2.66$, $p = .008$; threat: $b = 0.38$, $t(266) = 2.73$, $p = .007$].

As with Study 2, using Hayes' (2018) PROCESS Model 4, exploratory mediation analyses were conducted to investigate whether associations between self-esteem, agreeableness, or their interaction, and relationship and partner appraisals, may be at least partially explained by an association with relationship security. Three mediation analyses were conducted, each with self-esteem, agreeableness, or their interaction as the predictor, relationship and partner

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appraisals as the dependent variable, relationship security as the mediator, and condition held

constant as a covariate. Using 10,000 bootstrapped samples and 95% confidence intervals, the

interaction of self-esteem and agreeableness was mediated by relationship security, $b = -0.11$,

95% CI [-0.17, -0.04], as was self-esteem, $b = 0.08$, 95% CI [0.03, 0.12], and agreeableness, $b =$

0.18, 95% CI [0.04, 0.32]. Consistent with Study 2, these results suggest that the indirect

association through a trust-like construct may be especially pronounced for agreeableness.

Figure 7. Relationship and partner appraisals as a function of self-esteem, agreeableness, and
condition (Study 3).
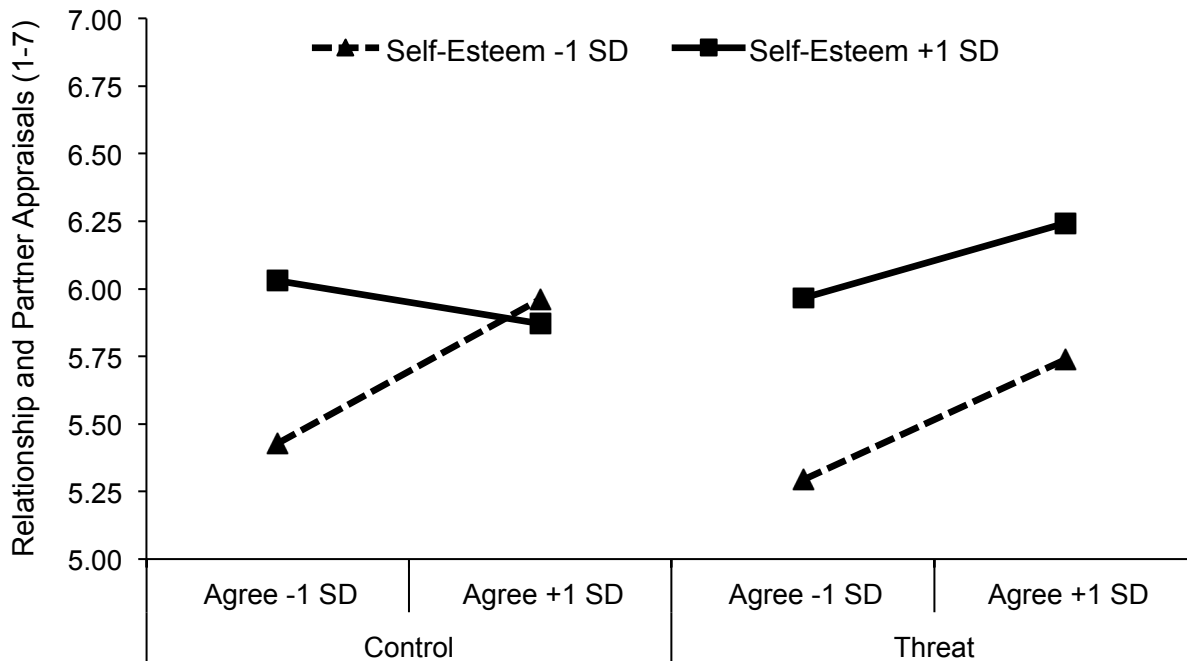
Accommodation

In general, I expected that highly agreeable people would be more likely than less

agreeable people to endorse behaviours characterized by high accommodation tendencies (i.e.,

voice and loyalty, which should involve more connection) as opposed to low accommodation

tendencies (i.e., exit and neglect, which should involve more self-protection). However, I also

expected that HSEs would engage in more accommodation. In other words, like in my prior

studies, I predicted that only less agreeable LSEs would endorse behaviours characterized by low

accommodation tendencies. I expected these predictions to hold particularly true for threatened participants (i.e., I expected a risk regulation connection effect for HSEs and highly agreeable LSEs).

Exit. The combination of self-esteem, agreeableness, and condition accounted for 10% of the variance in whether or not people said they would use exit as a strategy, $F(7, 266) = 5.54$, $p < .001$. As shown in Figure 8, there was a marginal main effect of condition, such that those in the threat condition were more likely to say they would use exit the next time their partner upset them, $b = 0.13$, $t(266) = 1.76$, $p = .077$.

The three-way interaction among self-esteem, agreeableness, and condition was not significant, $t(266) < 1$, and again, self-esteem did not interact with condition, $t(266) < 1$, failing to corroborate past risk regulation work. However, self-esteem and agreeableness marginally interacted to predict self-reported likelihood of exit, $b = 0.13$, $t(266) = 1.90$, $p = .058$. Regardless of condition, less agreeable LSEs were more likely to endorse the use of exit than were less agreeable HSEs [control: $b = -0.23$, $t(266) = -2.37$, $p = .019$; threat: $b = -0.15$, $t(266) = -2.02$, $p = .045$] and highly agreeable LSEs, [control: $b = -0.62$, $t(266) = -2.50$, $p = .013$; threat: $b = -0.81$, $t(266) = -4.01$, $p < .001$]. Interestingly, highly agreeable HSEs were marginally less likely to endorse exit than were less agreeable HSEs, but only in the threat condition, $b = -0.42$, $t(266) = -1.74$, $p = .084$. There was no difference between highly agreeable HSEs and highly agreeable LSEs, all ps > .399.

On average, those who were higher in self-esteem, $b = -0.12$, $t(266) = -2.62$, $p = .009$, or agreeableness, $b = -0.49$, $t(266) = -3.79$, $p < .001$, were less likely to say they would use exit than were their lower self-esteem or less agreeable peers.

Figure 8. Exit as a function of self-esteem, agreeableness, and condition (Study 3).
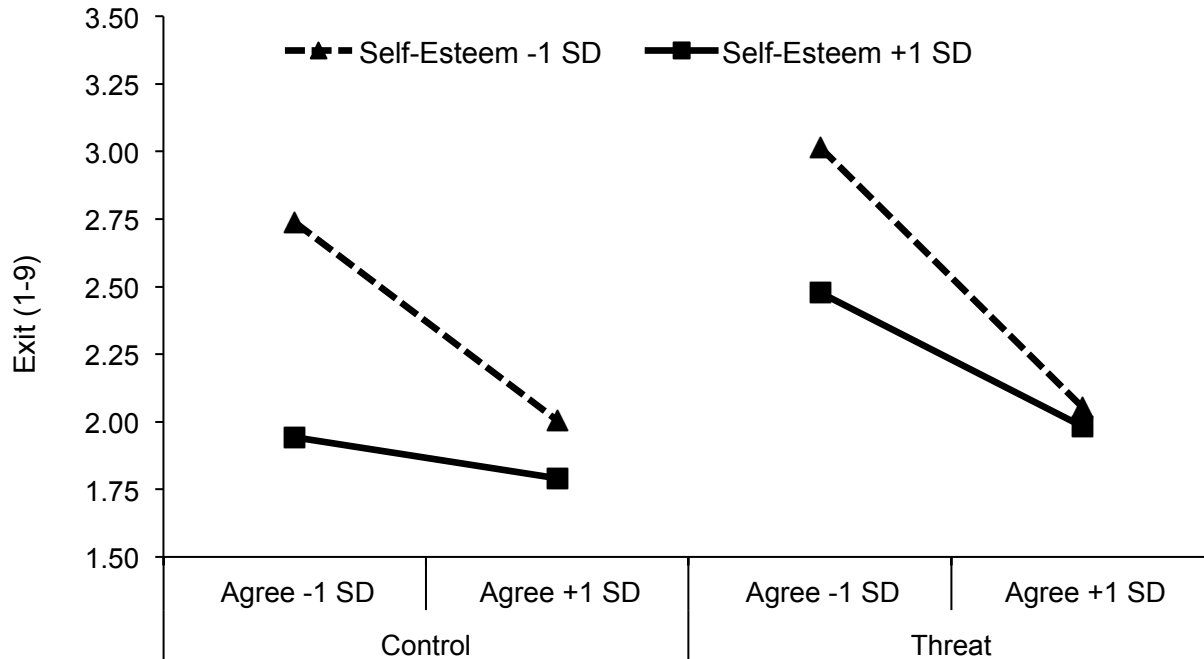
Neglect. The combination of self-esteem, agreeableness, and condition accounted for 7% of the variance in the likelihood of endorsing neglect as a strategy, $F(7, 266) = 3.87$, $p < .001$. Results are shown in Figure 9. Self-esteem did not interact with condition, $t(266) < 1$. People who were higher in self-esteem, $b = -0.17$, $t(266) = -3.26$, $p = .001$, or agreeableness, $b = -0.40$, $t(266) = -2.73$, $p = .007$, were less likely to say they would use this strategy than were their lower self-esteem or less agreeable counterparts. No other main effects or interactions were significant, all ps > .407.

Figure 9. Neglect as a function of self-esteem, agreeableness, and condition (Study 3).

Voice. Together, self-esteem, agreeableness, and condition accounted for 7% of the variance in whether or not people said they would use voice as a strategy, $F(7, 266) = 3.74$, $p = .001$. Self-esteem and condition did not interact, $t(266) < 1$. P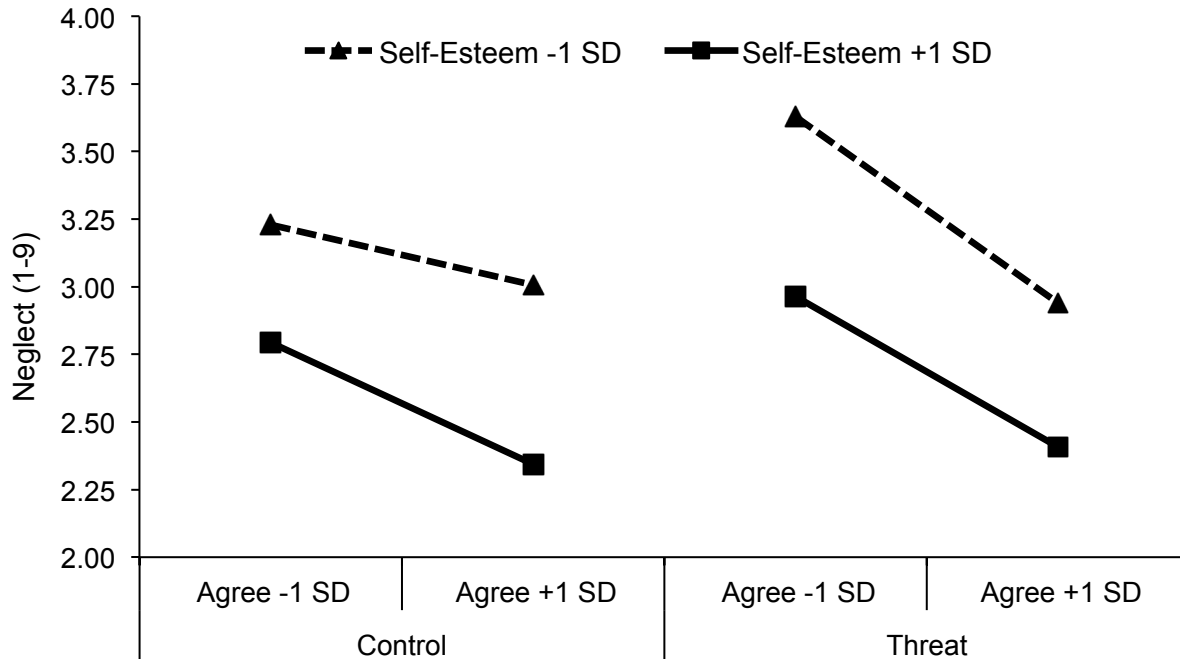eople who were higher in self-esteem, $b = 0.11$, $t(266) = 2.41$, $p = .017$, or agreeableness, $b = 0.49$, $t(266) = 3.64$, $p < .001$, were more likely to say they would use voice than were their lower self-esteem or less agreeable peers (see Figure 10). No other main effects or interactions were significant, all ps $> .181$.

Figure 10. Voice as a function of self-esteem, agreeableness, and condition (Study 3).
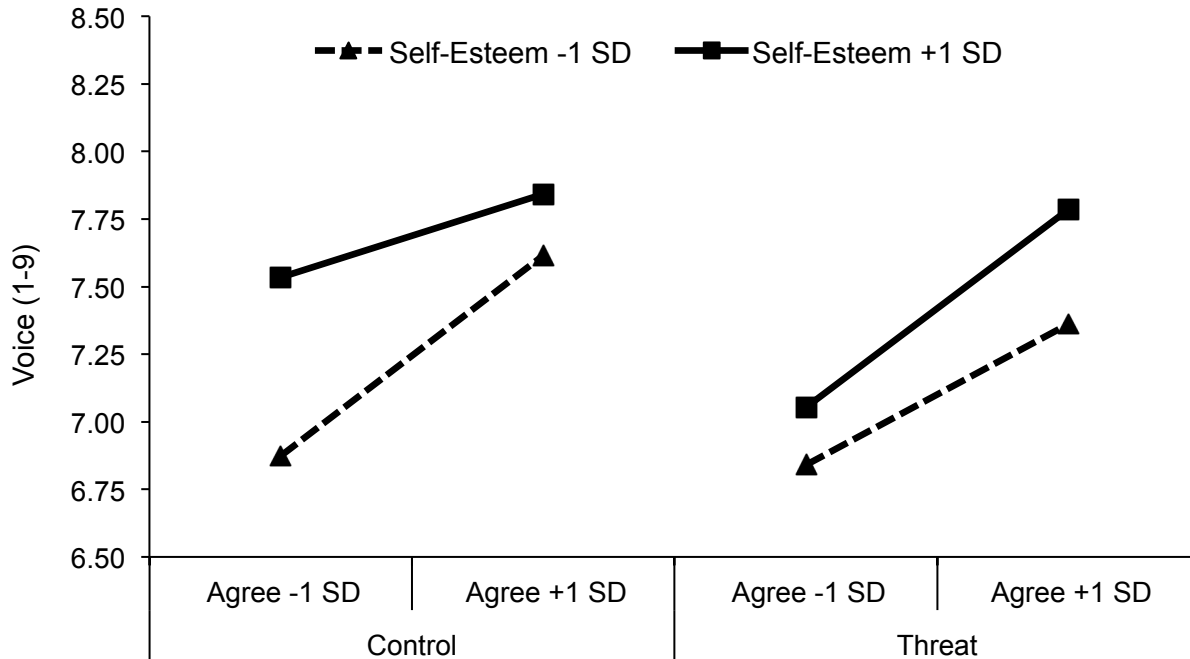
Loyalty. Self-esteem, agreeableness, and condition accounted for 2% of the variance in whether or not people said they would use loyalty as a strategy next time their partner upset them, $F(7, 266) = 1.93$, $p = .065$. There was a main effect of condition, such that threatened (as opposed to unthreatened) participants were less likely to say they would use loyalty, $b = -0.22$, $t(266) = -2.30$, $p = .022$ (see Figure 11). People who were higher in self-esteem, $b = -0.13$, $t(266) = -2.36$, $p = .019$, were also less likely to say they would use this strategy than were their lower self-esteem counterparts, This result is consistent with Rusbult and colleagues' (1991) initial hypotheses, but inconsistent with my own. No other main effects or interactions were significant, all ps > .392.

Figure 11. Loyalty as a function of self-esteem, agreeableness, and condition (Study 3).
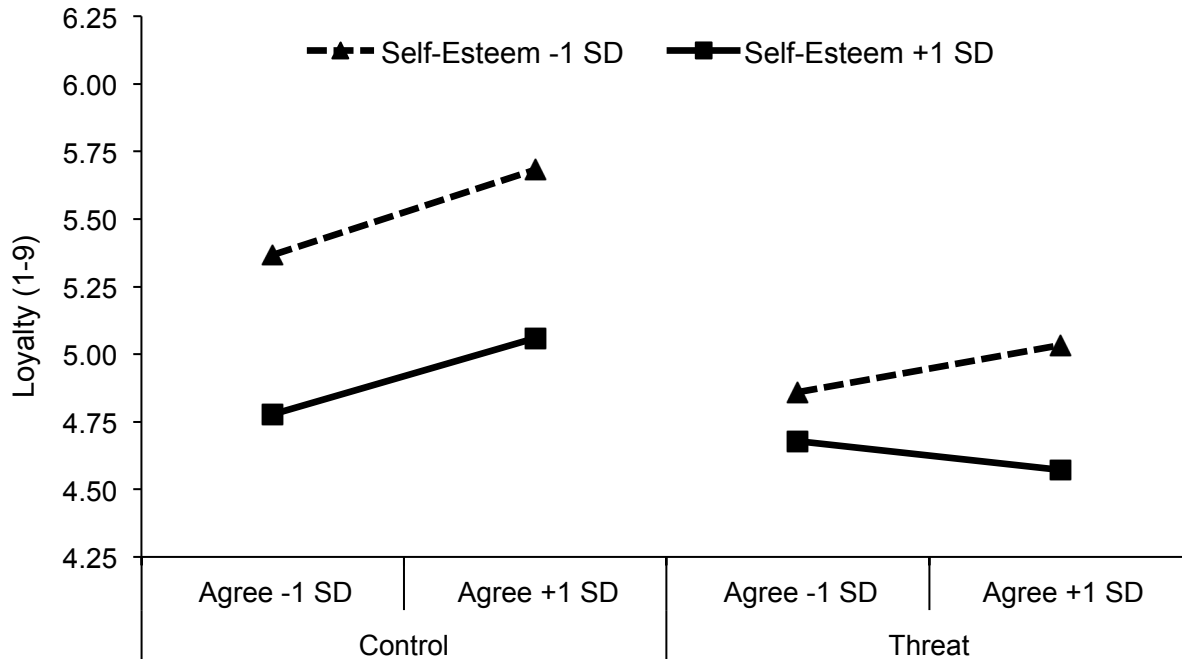
Figure legend: - -▲- - Self-Esteem -1 SD   —■— Self-Esteem +1 SD

Y-axis: Loyalty (1-9)

X-axis categories: Agree -1 SD | Agree +1 SD (Control) | Agree -1 SD | Agree +1 SD (Threat)

Discussion

The results of Study 3 suggest that both self-esteem and agreeableness are associated with accommodation. Unfortunately, however, the inferences that can be made about the role of relationship threat are limited in the present study, due to the apparent failure of the manipulation. As alluded to earlier, it is possible that because I disguised the threat as a task about providing writing feedback, rather than as a memory quiz, participants were less personally invested and thus paid less attention to the details. It is also possible that the accommodation measure does a poor job of picking up risk regulation tendencies, but given the overall weaker effect of condition on all measures in this study, the former explanation seems more likely.

Although I observed similar main effects of self-esteem and agreeableness on the traditional risk regulation measure (i.e., relationship and partner appraisals) and manipulation check (i.e., relationship security), an interaction between self-esteem and agreeableness also emerged. Lower self-esteem, highly agreeable people were just as relationship promoting and

secure as were HSEs, particularly in the control condition. Interestingly, this same interaction emerged on the measure of exit, whereby HSEs and highly agreeable LSEs were less likely than were less agreeable LSEs to say they would use exit. Again, this pattern was especially pronounced in the control condition.

Overall, HSEs and highly agreeable people said they would be less likely to use exit and neglect and more likely to use voice the next time they had a conflict with their partner. Interestingly, and in line with Rusbult and colleagues' (1991) initial theorizing, LSEs were more likely than were HSEs to say they would use loyalty as a strategy. Loyalty involves patiently waiting for things to improve, forgiving one's partner, and giving one's partner the benefit of the doubt (Rusbult et al., 1991). For LSEs, such behaviours may feel less risky than voice, which involves actively addressing the issue. LSEs may fear that their partner will not react well if they bring up their concerns, whereas standing by and not speaking up will not jeopardize their relationship. In order to feel comfortable using voice, one may need to first trust that one's partner values oneself enough to respond in a similarly constructive manner. LSEs may lack this trust. The fact that loyalty was positively associated with both voice and neglect also suggests that this form of accommodation may not always be an entirely constructive or destructive response. For instance, loyalty may be used as a strategy by those attempting to disengage from their partners and relationships (e.g., by not addressing the issue), as well as by those attempting to connect with their partners and relationships (e.g., by forgiving their partner).

Taken together, the results of Studies 1-3 suggest that there are instances in which being highly agreeable does enable LSEs to think in more relationship promoting, connecting ways. For example, in Study 1, under non-threatening conditions, highly agreeable LSEs were just as connecting as are HSEs. Under threat, both LSEs and HSEs, when also high in agreeableness,

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connected, and those who were the most connecting were highly agreeable HSEs. Study 2 included both a stronger and a weaker threat. Though the stronger threat appeared difficult for anyone to surmount, in the weaker threat condition, agreeableness buffered LSEs from engaging in self-protection. In Study 3, although the manipulation appeared to have failed, being highly agreeable allowed LSEs to be just as connecting as were HSEs. In Study 4, I aimed to create a situation in which the role of agreeableness would be especially important for LSEs.

Study 4: Conflict as a Threat

In Study 4, I examined whether agreeableness may be especially critical for risk regulation in the context of relationship conflict. Agreeableness is consistently associated with more prosocial and accommodating, and less quarrelsome, aggressive responses to conflict (Field et al., 2014; Gadke et al., 2016; Graziano et al., 1996; Jensen-Campbell et al., 2003; Wood & Bell, 2008; Yao & Moskowitz, 2014). Highly agreeable people are also less likely than less agreeable people to express negative emotions in the presence of others (Haas, Omura, Constable, & Canli, 2007; Meier, Robinson, & Wilkowski, 2006; Tobin et al., 2000). Crucially, agreeable people trust their partners have benevolent intentions (Costa & McCrae, 1992; Crowe, 2017; Goldberg, 1992; Perunovic, 2008). As such, being highly agreeable should allow both HSEs and LSEs to prioritize connection following a conflict-based relationship threat.

In the present experiment, I used a relationship conflict manipulation to threaten participants' security in their relationships (Simpson, Rholes, & Phillips, 1996). Whereas in Studies 1-3 I used traditional risk regulation threat manipulations (i.e., the written passage and "secret selves" manipulations), in Study 4, I used a conflict manipulation to draw out the effects of agreeableness on risk regulation tendencies: More vs. less agreeable people tend to respond to conflicts differently from one another.

The conflict manipulation should threaten the security of a person's relationship, because it asks them to reflect on a current and unresolved conflict with their romantic partner (Simpson et al., 1996). I hypothesized that people who were highly agreeable would respond to this threat in a more connecting manner than would less agreeable people. I expected that they would do so not only by appraising their relationships and partners more positively, but also by being more likely to say that they would behave in a benevolent and communal manner the next time they had a conflict with their partner (e.g., by intentionally taking their partner's perspective). Conversely, I expected that those who were lower in agreeableness would be less connecting than would their more agreeable peers, and more likely to say that they would respond to a future conflict with their partner in an aggressive or selfish manner (e.g., by talking over their partner), or an insecure and self-protecting manner (e.g., by withdrawing emotionally). I measured these self-reported responses using an instrument designed specifically to tap into the potential ways HSEs, LSEs, and more vs. less agreeable people might respond to a conflict-based relationship threat. The idea for this measure was based on Rusbult et al.'s (1991) measure of accommodation, but was designed to capture a wider variety of responses.

Overall, given that evidence suggests that agreeableness is strongly associated with responses to conflict, I expected that being highly agreeable would buffer LSEs from their typical self-protective responses to relationship threat. However, I also predicted that those who would respond in the most connecting manner would be highly agreeable HSEs. Last, I expected that these effects would be stronger after recalling a major conflict than they would be after recalling a minor conflict, and that the major conflict condition would lead agreeable and HSE individuals to increase connection, whereas less agreeable individuals would self-protect.

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Method

Participants

Two hundred and thirty-four undergraduate students in romantic relationships participated in exchange 0.50 course credits. This time, potential participants who were dating only casually, as opposed to exclusively, were excluded, as risk regulation may be more pronounced among more established relationships. Thirty participants who did not take the study seriously (e.g., by missing attention checks) or reported having no conflict with their partner were excluded, resulting in a final sample of 204 (164 women, 37 men, 2 non-binary persons, 1 Two-Spirit person; $M_{age} = 21$ years, $SD = 4$; $Mdn = 20$).[7] On average, participants had been in their relationship for 2.0 years ($SD = 3.1$; $Mdn = 1.3$); 87% were exclusively dating, 7% were cohabiting, 3% were married, 1% were engaged, and 3% reported an "other" relationship status.

Materials

Self-esteem. Rosenberg's (1965) self-esteem scale ($\alpha = .92$) assessed global self-esteem.

Agreeableness. The BFI-A (John et al., 1991) assessed agreeableness ($\alpha = .77$).

Predicted thoughts and behaviours in future conflict. This outcome measure, my main dependent measure, was developed for the purposes of this study, and assessed a variety of possible thoughts and behaviours a person might engage in the next time they have a conflict with their partner. The measure consisted of 39 items total, organized into the following three subscales: (a) benevolent/communal responses (e.g., "Try to compromise with my partner," "Tell my partner that we'll get through this together"; 16 items; $\alpha = .86$), (b) aggressive/selfish responses (e.g., "Say something to hurt my partner," "Try to make my partner feel guilty about it"; 14 items; $\alpha = .87$), and (c) insecure/self-protecting responses (e.g., "Withdraw emotionally

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[7] Two participants did not report their age.

from my partner," "End up feeling hurt"; 9 items; α = .78). The benevolent/communal subscale was negatively correlated with both the aggressive/selfish subscale, $r(204) = -.50$, $p < .001$, and the insecure/self-protecting subscale, $r(204) = -.48$, $p < .001$. These latter two subscales were positively correlated with one another, $r(204) = .56$, $p < .001$. This measure was developed to cover a wide range of both active and passive positive and negative behaviours and thoughts.

Relationship and partner appraisals. The same 18-item measure (α = .93) used in Study 2 assessed relationship and partner appraisals.

Unconditional regard. Murray and colleagues' (2002) 9-item measure (α = .90) used in Study 2 assessed unconditional regard. This measure was included as a manipulation check to examine whether participants' feelings of unconditional regard were threatened by the conflict manipulation.

Procedure

This study was presented to participants as examining the relation between personality and social relationships. After signing up for the study via the university's psychology participant pool, participants were directed to the online study on Qualtrics.com. Participants then completed the Rosenberg Self-Esteem Scale, BFI-A, and a basic demographic questionnaire (age, gender, ethnicity, and relationship length/status).

Participants were randomly assigned to one of two conditions: major conflict or minor conflict (Simpson et al., 1996). They were then asked to think of either a major or minor unresolved conflict they were having with their current partner:

> Please identify the **most significant (a minor) unresolved problem in your relationship**. Think about the last major argument or disagreement you had with your partner about this topic or issue. Remember what you

were arguing about and why you were upset with your partner.

Remember what you were thinking about and how you felt during the

argument.

My partner and I have a **major (minor) unresolved conflict** about

_____.

Because this issue remains unresolved, it is likely to come up again.

Please answer the following questions with that specific problem in

mind.

As a brief manipulation check, participants were then asked "How upset/distressed are you about

this conflict at the moment?" rated from 1 (*not at all upset/distressed*) to 7 (*extremely

upset/distressed*), and "How major/severe would you say this conflict is?" rated from 1 (*not at all

major/severe*) to 7 (*extremely major/severe*).

Following the manipulation check, participants completed the measure of predicted

thoughts and behaviours in future conflict, as well as the measures of relationship and partner

appraisals, and unconditional regard (as a manipulation check). Participants were then fully

debriefed and probed for suspicion and attention.

Results

Self-esteem ($M = 6.13$, $SD = 1.65$, $Mdn = 6.20$) and agreeableness ($M = 3.84$, $SD = 0.62$,

$Mdn = 3.89$) were mean-centered for analyses. The correlation between self-esteem and

agreeableness was $r(204) = .24$, $p < .001$. The major ($n = 97$) and minor conflict ($n = 107$)

conditions were effects coded for analysis (major conflict = 1; minor conflict = -1). Participants

in the major conflict condition ($M = 3.70$, $SD = 1.64$) saw their conflict as more major/severe

than did those in the minor conflict condition ($M = 2.99$, $SD = 1.63$), $t(202) = 3.10$, $p = .002$.

However, participants in the major conflict condition, ($M = 3.62$, $SD = 1.90$) did not see their conflict as more upsetting/distressing than did those in the minor conflict condition ($M = 3.36$, $SD = 1.65$), $t(191) = 1.05$, $p = .294$.[8]

Unconditional Regard

Like Study 2, I predicted that participants in the threat condition would report feeling less unconditionally regarded than would participants in the control condition. Although this measure was included as a manipulation check, I expected that these differences would be moderated by self-esteem and agreeableness: Those who were higher in self-esteem, higher in agreeableness, or higher in both, would feel more unconditionally regarded than would those who were lower self-esteem and agreeableness.

Together, the combination of self-esteem, agreeableness, and condition accounted for 10% of the variance in how regarded participants felt after thinking about an unresolved relationship conflict, $F(7, 196) = 4.22$, $p < .001$. Regardless of condition or agreeableness, HSEs felt more positively regarded by their partners, $b = 0.14$, $t(196) = 3.35$, $p = .001$ (see Figure 12). This main effect, however, was qualified by a three-way interaction among self-esteem, agreeableness, and condition, $b = 0.15$, $t(196) = 2.44$, $p = .015$.

Examination of the simple effects revealed that highly agreeable HSEs displayed the connection response often seen among HSEs in past work: Highly agreeable HSEs felt more unconditionally regarded in the major conflict condition than they did in the minor conflict

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[8] Examination of these manipulation checks using multiple regression indicated that less agreeable HSEs viewed the major conflict as more upsetting and distressing than they did the minor conflict condition, $b = 1.62$, $t(196) = 2.94$, $p = .004$. Highly agreeable HSEs actually found the major conflict condition marginally less upsetting and distressing than they did the minor conflict condition, $b = -0.79$, $t(196) = -1.82$, $p = .070$. Likewise, highly agreeable HSEs, $b = 0.25$, $t(196) = 0.62$, $p = .535$, and less agreeable LSEs, $b = 0.58$, $t(196) = 1.41$, $p = .159$, did not view the major conflict condition as significantly more major or severe than they did the minor conflict condition, suggesting that the manipulation may not have been as threatening for highly agreeable HSEs as it was for others.

condition, $b = 0.59$, $t(196) = 2.55$, $p = .012$. Less agreeable HSEs, on the other hand, felt

marginally less unconditionally regarded in the major conflict condition than they did in the

minor conflict condition, $b = -0.51$, $t(196) = -1.76$, $p = .081$. Unexpectedly, less agreeable LSEs

felt marginally more unconditionally regarded in the major conflict condition than they did in the

minor conflict condition, $b = 0.39$, $t(196) = 1.56$, $p = .099$. In the major conflict condition, highly

agreeable HSEs felt more unconditionally regarded by their partners than did less agreeable

HSEs, $b = 0.67$, $t(196) = 3.20$, $p = .002$, and agreeable LSEs, $b = 0.22$, $t(196) = 2.32$, $p = .021$.

The results of this manipulation check suggest that although the major conflict was generally

seen as more major and severe than was the minor conflict, highly agreeable HSEs may simply

have felt less threatened than less agreeable or LSEs individuals, or may have been able to

defend against the threat.

Figure 12. Unconditional regard as a function of self-esteem, agreeableness, and condition
(Study 4).
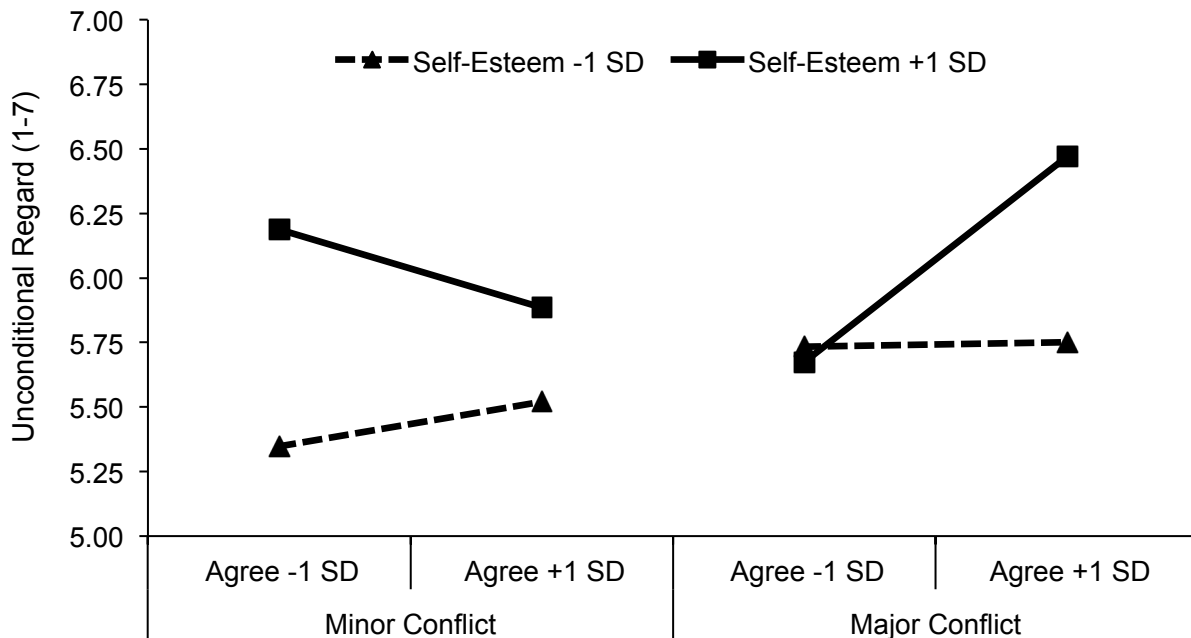
Relationship and Partner Appraisals

On the primary dependent variable—relationship and partner appraisals—I expected that people who were highly agreeable would respond to a conflict threat in a more connecting manner than would less agreeable people, that this effect would be especially evident in the major, compared to the minor, conflict condition, and that highly agreeable HSEs would be the most connecting.

The combination of self-esteem, agreeableness, and condition accounted for 7% of the variance in how people thought about their relationships and partners following a threat to their relationship, $F(7, 196) = 3.25$, $p = .003$. The main effect of condition was not significant, $b = 0.09$, $t(196) = 1.38$, $p = .169$, and self-esteem did not interact with condition, $t(196) < 1$. Overall, HSEs were more connecting than were LSEs—they appraised their partners and their relationships more positively, $b = 0.11$, $t(196) = 2.83$, $p = .005$, as did those who were higher in agreeableness, though this effect was marginal, $b = 0.18$, $t(196) = 1.72$, $p = .086$ (see Figure 13). These main effects of self-esteem and agreeableness were qualified by a marginal three-way interaction among self-esteem, agreeableness, and condition, $b = 0.12$, $t(196) = 1.96$, $p = .051$.

Examination of the simple effects revealed that highly agreeable HSEs demonstrated the traditional high self-esteem risk regulation pattern: They became even more connecting following thinking about a major conflict, compared to a minor conflict, $b = 0.49$, $t(196) = 2.24$, $p = .026$. In the minor conflict condition, less agreeable HSEs were more connecting than were less agreeable LSEs, $b = 0.17$, $t(196) = 2.25$, $p = .026$. Within the minor threat condition, no other simple effects were significant. In the major threat condition, highly agreeable HSEs were significantly more connecting than were highly agreeable LSEs, $b = 0.20$, $t(196) = 2.19$, $p = .029$. Highly agreeable HSEs in the major conflict condition also appraised their partners and

relationships more positively than did less agreeable HSEs, $b = 0.54$, $t(196) = 2.76$, $p = .006$, who looked identical to less agreeable LSEs, $t(196) < 1$, who in turn looked identical to highly agreeable LSEs, $t(196) < 1$.

Exploratory mediation analyses were again conducted to examine whether the associations between self-esteem, agreeableness, or their interaction, and relationship and partner appraisals, were mediated by unconditional regard. Three mediation analyses were conducted, with self-esteem, agreeableness, or their interaction as the predictor, relationship and partner appraisals as the outcome, unconditional regard as the mediator, and condition included as a covariate. Only self-esteem was significantly mediated by unconditional regard, $b = 0.10$, 95% CI [0.04, 0.16].

Figure 13. Relationship and partner appraisals as a function of self-esteem, agreeableness, and condition (Study 4).
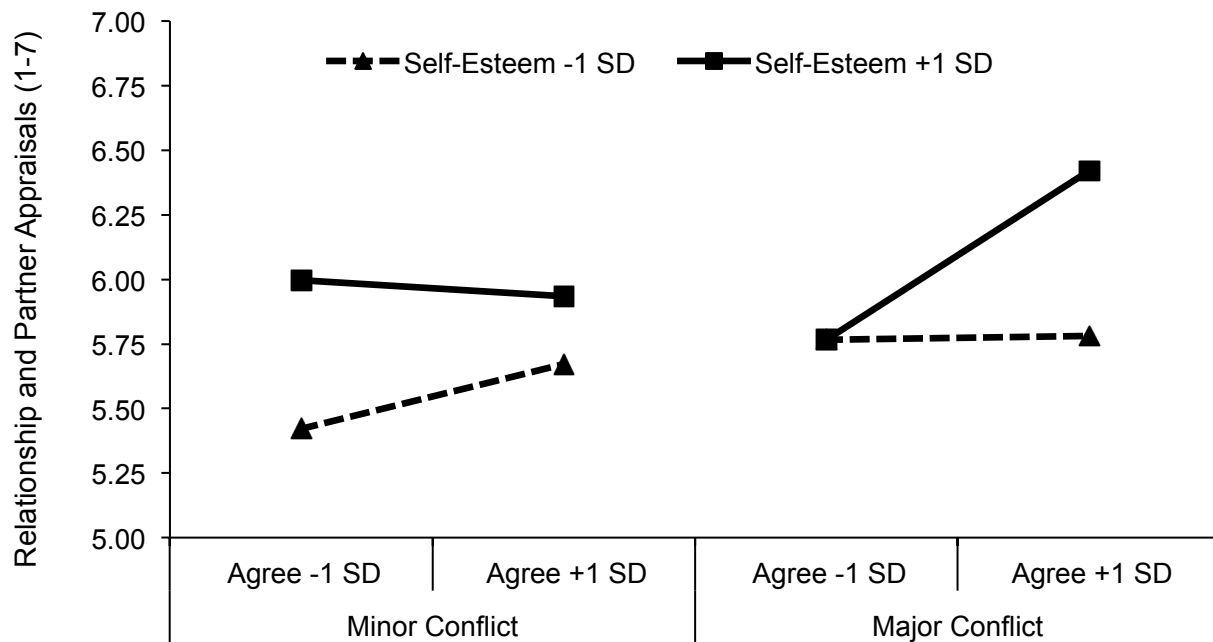
Predicted Thoughts and Behaviours in Future Conflict

Benevolent/communal responses. I expected that highly agreeable people—including highly agreeable LSEs—would be more likely to say that they would behave in a benevolent and

communal manner towards their partner the next time they had a conflict, and that highly agreeable HSEs would be most likely to respond in this manner. I further predicted that these effects would be stronger in the major conflict condition than in the minor conflict condition.
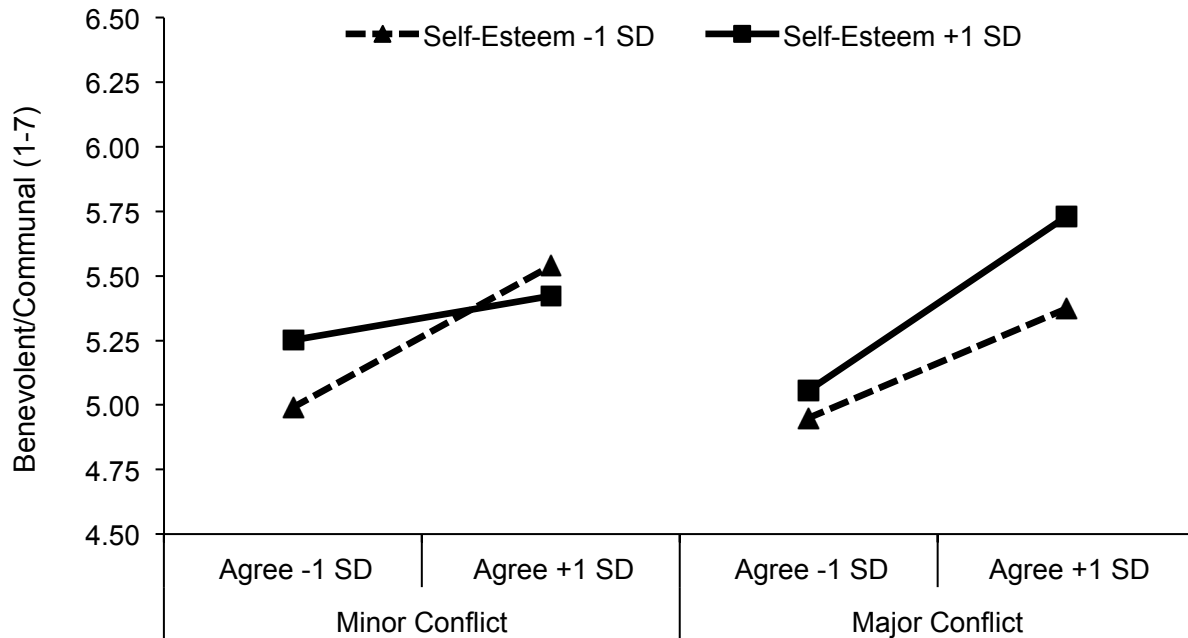
The combination of self-esteem, agreeableness, and condition accounted for 8% of the variance in how benevolent and communal people reported they would be the next time they had a conflict with their partner, $F(7, 196) = 3.38$, $p = .002$. Self-esteem and condition did not interact, $t(196) < 1$. Overall, compared to their less agreeable counterparts, agreeable participants reported that they would be more benevolent and communal (e.g., by expressing affection, cooperating and compromising), regardless of condition, $b = 0.37$, $t(196) = 3.80$, $p < .001$ (see Figure 14). No other main effects were significant, all ps > .210, and the interaction of self-esteem, agreeableness, and condition did not reach significance, $b = 0.08$, $t(196) = 1.38$, $p = .170$.

Given that this was a new measure and that I predicted a three-way interaction among self-esteem, agreeableness, and condition, I cautiously examined the simple slopes that were of *a priori* interest. Interestingly, highly agreeable LSEs reported that they would be more benevolent and communal than did less agreeable LSEs in the minor threat condition, $b = 0.44$, $t(196) = 2.56$, $p = .011$, whereas highly agreeable HSEs reported that they would be more benevolent and communal than would less agreeable HSEs in the major threat condition, $b = 0.56$, $t(196) = 2.99$, $p = .003$. However, given the non-significance of the three-way interaction, these differences should be interpreted with caution.

Figure 14. Future benevolent/communal responding as a function of self-esteem, agreeableness, and condition (Study 4).

Figure legend: ▲- -Self-Esteem -1 SD   ■—Self-Esteem +1 SD

Y-axis: Benevolent/Communal (1-7), ranging 4.50 to 6.50

X-axis: Agree -1 SD | Agree +1 SD (Minor Conflict), Agree -1 SD | Agree +1 SD (Major Conflict)

Aggressive/selfish responses. I hypothesized that compared to their more agreeable peers, less agreeable people in particular, would be more likely to endorse aggressive and selfish responses to future conflict. I also expected that highly agreeable HSEs would be the least likely to endorse aggressive and selfish responses, and that these effects would be stronger in the major conflict condition compared to the minor conflict condition.

Together, self-esteem, agreeableness, and condition accounted for 13% of the variance in how aggressive or selfish people reported they would be during the next conflict with their partner, $F(7, 196) = 5.14$, $p < .001$. Results are shown in Figure 15. Regardless of condition or self-esteem, highly agreeable people were less likely to report that they would respond in an aggressive or selfish manner (e.g., by getting angry, threatening to leave), $b = -0.51$, $t(196) = -5.30$, $p < .001$, compared to their less agreeable peers. No other main effects or interactions were significant, all ps $> .300$.

I again cautiously probed the simple slopes that were of *a priori* interest, but given the non-significant three-way interaction, $b = -0.05$, $t(196) = -1.00$, $p = .325$, the results should be

interpreted with extreme caution. The main effect of agreeableness was particularly pronounced for LSEs in both the minor, $b = -0.54$, $t(196) = -3.20$, $p = .002$, and major conflict conditions, $b = -0.56$, $t(196) = -2.66$, $p = .008$, and for HSEs in the major conflict condition, $b = -0.65$, $t(196) = -3.59$, $p < .001$.

Figure 15. Future aggressive/selfish responses as a function of self-esteem, agreeableness, and condition (Study 4).
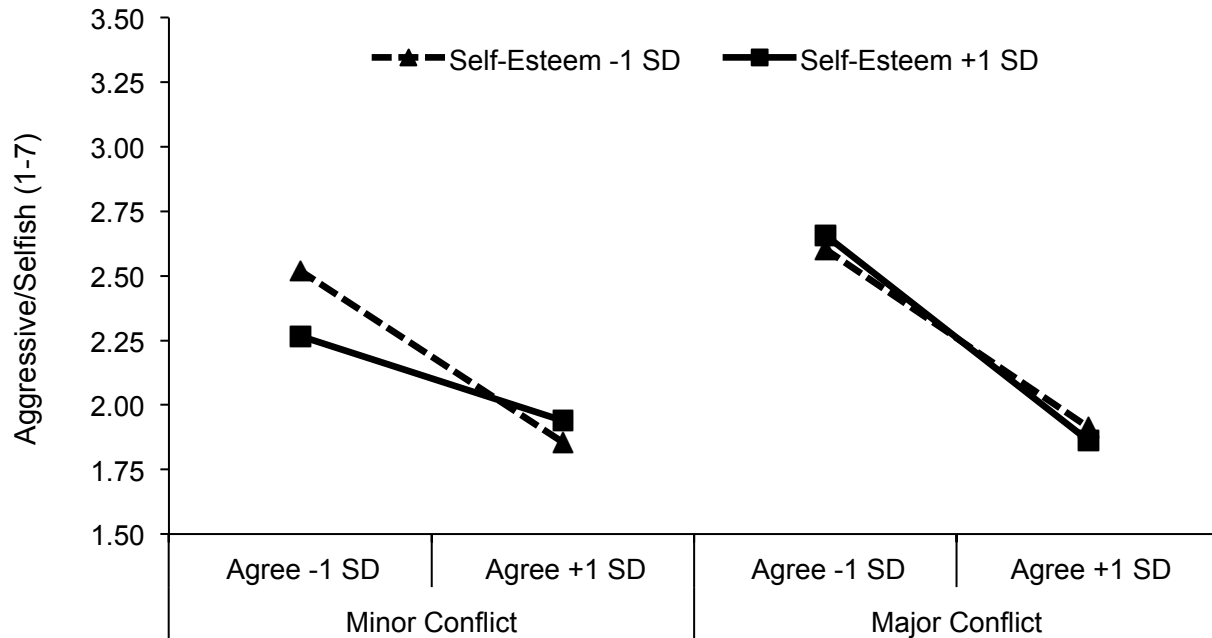
Insecure/self-protecting responses. I expected that compared to their more agreeable counterparts, less agreeable (and LSE) individuals would be more likely to endorse insecure and self-protective responses to conflict. I predicted that highly agreeable HSEs would be the least likely to endorse insecure and self-protective responses, and that these differences would be larger in the major conflict condition than they would in the minor conflict condition.

Overall, self-esteem, agreeableness, and condition accounted for 8% of the variance in participants' self-reported likelihood of engaging in insecure and self-protective reactions during the next conflict with their partner, $F(7, 196) = 3.64$, $p = .001$. Results are shown in Figure 16. There were no significant effects of condition, or interactions among the variables, all $ps > .229$.

In general, however, HSEs, $b = -0.14$, $t(196) = -3.19$, $p = .002$, and highly agreeable people, $b = -0.26$, $t(196) = -2.67$, $p = .025$, said they would be less likely to react in an insecure, self-protecting way (e.g., withdrawing emotionally, feeling hurt and rejected) than were their lower self-esteem or less agreeable counterparts, respectively.

Notably, the effect of self-esteem was especially evident in the minor threat condition, whereas the effect of agreeableness was more pronounced in the major condition. In the minor threat condition, HSEs reported that they would react in a less insecure and self-protecting manner, regardless of whether they were less agreeable, $b = -0.16$, $t(196) = -1.87$, $p = .064$, or more agreeable, $b = -0.21$, $t(196) = -2.94$, $p = .004$. In the major threat condition, highly agreeable HSEs were less likely than were their less agreeable counterparts to endorse these types of responses, $b = -0.54$, $t(196) = -2.48$, $p = .014$. Less agreeable HSEs did not differ from less agreeable LSEs in the major threat condition, $t(196) < 1$. Given the non-significance of the three-way interaction, $t(196) < 1$, however, these results should of course be viewed with caution and replicated in future studies.

Figure 16. Future insecure/self-protecting responses as a function of self-esteem, agreeableness, and condition (Study 4).
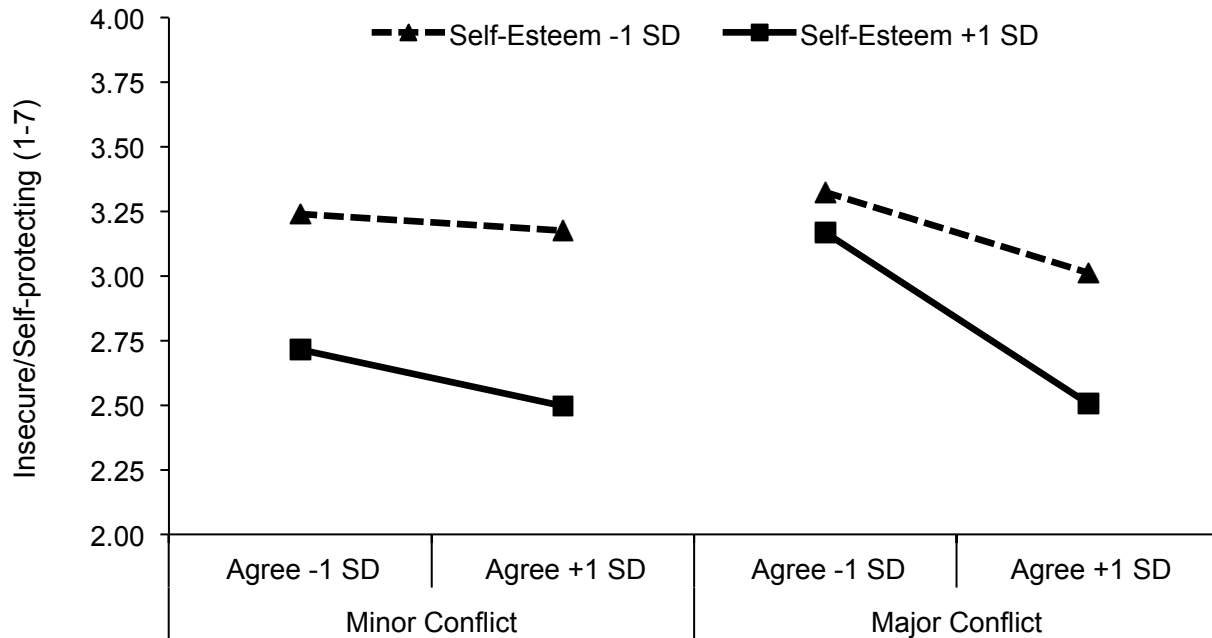
Discussion

The results of Study 4 demonstrate that in the context of a major conflict, both higher agreeableness and higher self-esteem appear necessary to maintain—or even increase— connection, as indexed by established measures of risk regulation. In fact, compared to those who thought about a minor conflict, highly agreeable HSEs who thought about a major conflict demonstrated the traditional HSE risk regulation effect: They became even more connecting and relationship promoting. Only highly agreeable HSEs exhibited this response. Interestingly, less agreeable HSEs appeared particularly wounded by the major conflict across some of the measures. For instance, in the major conflict condition, less agreeable HSEs felt less unconditionally regarded by their partners and were more insecure and self-protecting than were those in the minor conflict condition.

The finding of the traditional risk regulation effect on the unconditional regard manipulation check (on which one would expect a main effect of condition), suggests that highly agreeable HSEs may be able to mount such robust defenses in the face of threats that they never

actually appear threatened. Certainly, highly agreeable HSEs do react to the threat—just not in the way one might expect on a manipulation check.

In terms of participants' predicted responses to future conflict, agreeableness emerged as the lone predictor of benevolent/communal and aggressive/selfish reactions: Regardless of their self-esteem, highly agreeable people were more likely than were their less agreeable peers to say they would respond in a benevolent/communal way to future conflict. The reverse pattern emerged for aggressive/selfish responses. Both self-esteem and agreeableness were important predictors of insecure/self-protecting responses, with HSEs in the minor threat condition being less likely to say they would respond in an insecure or self-protecting manner than were LSEs. In the major conflict condition, those who were higher in both self-esteem and agreeableness were least likely to endorse insecure/self-protective responses.

General Discussion

In the drive to satisfy the fundamental need to belong (Baumeister & Leary, 1995), one must assume the risk of being rejected. Risk regulation suggests that for those who doubt their own relational value—like LSEs—this rejection seems inevitable. To shield themselves from this inevitable pain, these individuals psychologically distance themselves from their partners and relationships at the slightest hint of rejection. By comparison, those who are more confident in their relational value—like HSEs—are able to remain psychologically close and connected to their partners and relationships. Given that these opposing responses have implications for the health and longevity of close, intimate relationships (Murray, Bellavia, et al., 2003; Murray, Griffin, et al., 2003), it is crucial to understand the contexts and dispositions that predict them.

In the present research, I examined two dispositional traits—self-esteem and agreeableness—that I hypothesized would determine responses to relationship threats. Though

ample past research has demonstrated the role of self-esteem in risk regulation processes, substantially less has considered the role of agreeableness, let alone their interaction (but see McCarthy et al., 2017). I predicted that, following a relationship threat, people higher in self-esteem *or* agreeableness would respond in a connecting, relationship promoting manner. In other words, whereas LSEs tend to respond to relationship threats by self-protecting, I expected that LSEs who were higher in agreeableness would actually respond to relationship threats much in the same way that HSEs do. I thus expected that only less agreeable LSEs would engage in self-protection following relationship threats. To test these hypotheses, I conducted four experiments using a variety of manipulations designed to threaten people's relationships.

Summary of Results

Across all four experiments, I was unable to replicate the self-esteem by condition interaction often found in risk regulation work. However, I did find consistent effects of agreeableness, and although less consistent, interactions among self-esteem, agreeableness, and condition, suggesting that agreeableness is a meaningful dispositional factor to consider in the context of risk regulation. In Study 1, I found that agreeableness appears to play a role in thoughts about one's partner and relationship in both threatening and unthreatening contexts. For example, highly agreeable LSEs were just as connecting as were HSEs under normal circumstances, whereas when threatened, highly agreeable people were especially connecting. Unexpectedly, those who were less agreeable but higher in self-esteem responded in the most self-protective manner when threatened, compared to when unthreatened.

In Study 2, agreeableness again stood out as an important predictor of responses to relationship threat. Under only moderately threatening conditions, HSEs and more agreeable LSEs remained connected. However, under more threatening contexts, almost everyone appeared

to engage in at least some level of self-protection, and again, less agreeable HSEs appeared to be especially wounded by the presence of a stronger relationship threat.

Although the experimental manipulation largely failed in Study 3, results suggest that agreeableness and self-esteem are both associated with people's self-reported accommodation tendencies. Those who were higher in agreeableness or self-esteem were less likely to report that they would engage in destructive accommodation responses than were their less agreeable or LSE peers, and were more likely to report that they would engage in constructive responses. Importantly, in line with my hypotheses, more agreeable LSEs were just as connecting as were HSEs.

In Study 4, using Simpson and colleagues' (1996) conflict manipulation, I found that highly agreeable HSEs became more connecting after thinking about a major conflict than a minor one. Conversely, less agreeable HSEs seemed particularly stung by thoughts of a major conflict with their romantic partner. Agreeableness yet again emerged as an important predictor of self-reported responses to future conflicts: Regardless of self-esteem, highly agreeable people said they would be more likely to respond to future conflicts in a benevolent and communal way, and would be less likely to be aggressive or selfish. After thinking about a minor conflict with their romantic partner, HSEs, regardless of their level of agreeableness, reported that they would be less insecure and self-protecting than would LSEs. After thinking about a major conflict, however, those who were higher in both self-esteem and agreeableness stood out: They were the least likely to say that they would respond in an insecure or self-protective manner.

The importance of agreeableness. Taken together, the results of the present research suggest that although the interaction of agreeableness and self-esteem is certainly important to consider, both agreeableness and self-esteem on their own are important dispositional predictors

of thoughts and attitudes toward one's romantic partner and relationship. Agreeableness, in particular, stood out. For instance, higher agreeableness was strongly associated with a greater likelihood of being accommodating and benevolent towards a partner, even following a threat, and with a reduced likelihood of being aggressive or selfish, neglectful, or retaliatory. Though I predicted interactions on all of my outcome measures, it is not surprising that agreeableness was so strongly linked to self-reported relationship behaviours, given its association with constructive conflict resolution, negative affect regulation, and the desire to maintain harmonious close relationships (Côté & Moskowitz, 1998; Field et al., 2014; Gadke et al., 2016; Graziano & Eisenberg, 1997; Graziano et al., 1996; Jensen-Campbell et al., 2003; Ode et al., 2008; Tobin et al., 2000; Wood & Bell, 2008). It is also not surprising that on self-report measures assessing perceptions of one's partner and relationship—like those used in the present research— agreeableness would have such a considerable effect: One's level of agreeableness may override any feelings one has about the self—good or bad—when thoughts about one's close others are made salient.

Consistent with my predictions, higher agreeableness did at times appear to "rescue" LSEs from becoming self-protective—both when unthreatened and threatened. However, in Study 4, only HSEs who were highly agreeable engaged in connection to a greater degree after thinking about a real, major conflict with their romantic partner than after thinking about a more minor conflict. These findings are consistent with McCarthy et al. (2017), who demonstrated that those who were higher in both self-esteem and agreeableness were the most likely to make risky emotional disclosures in close relationships.

Less agreeable HSEs. One unexpected pattern that emerged in a number of my experiments was that of less agreeable HSEs responding poorly to relationship threats. I initially

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predicted that as long as one was higher in self-esteem or agreeableness, one's level on the other trait would not matter a great deal. However, it may be that HSEs who are less agreeable share some personality characteristics with narcissistic individuals, which could explain their more negative and self-protective responses to threat. Narcissistic individuals tend to be less trusting of others, less empathic, more selfish, and less motivated to maintain happy and loving interpersonal relationships (Campbell, Bush, Brunell, & Shelton, 2005; Campbell & Foster, 2007; Miller, Gentile, & Campbell, 2013; Raskin & Terry, 1988). Furthermore, more narcissistic people often feel that they are superior to others in a variety of domains, and actively see out positive feedback (Campbell, Rudich, & Sedikides, 2002; Miller et al., 2013; Raskin & Terry, 1988). In interpersonal relationships, narcissistic partners tend to be cold and vindictive, less committed and accommodating, more willing to derogate their partners, and they use more hostile communication methods and are more likely to hold grudges compared to their less narcissistic peers (Byrne & O'Brien, 2014; Campbell et al., 2002; Campbell & Foster, 2002; Exline, Baumeister, Bushman, Campbell, & Finkel, 2004; Lamkin, Lavner, & Shaffer, 2017; Peterson & DeHart, 2014). It is possible that HSE, less agreeable individuals share this combination of attributes and behaviours with narcissists.

Thus, although I suspected that higher self-esteem may be able to "sub in" for lower agreeableness, there may actually be something particularly pathological and relationship-damaging about the combination of lower agreeableness and higher self-esteem. In the present studies, threatened less agreeable HSEs reported less positive views of their partner and relationship, less accommodation, fewer benevolent and communal responses to conflict, and more aggressive, selfish, insecure, and self-protective responses to conflict than more agreeable HSEs. Like relatively narcissistic people, less agreeable HSEs may be easily threatened and react

with hostility (Bushman & Baumeister, 1998; Peterson & DeHart, 2014; Stucke, 2003; Twenge & Campbell, 2003). Similarly, these individuals may also share characteristics in common with people who have a dismissing attachment style: Those with this attachment style tend to think positively of themselves, but negatively of others (Bartholomew, 1997; Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994). Specifically, like HSEs, people with a dismissing attachment style are confident in themselves, but like less agreeable people, they are also less interpersonally warm, less trusting, and share less closeness and intimacy with their romantic partners than do those who are more securely attached or who have more positive views of others (Bartholomew, 1997; Bartholomew & Horowitz, 1991). Future research could focus more on this unique group to determine how the combination of HSE and lower agreeableness manifests itself behaviourally in relationships.

  Failure to replicate the self-esteem by condition interaction. Interestingly, I did not replicate the self-esteem by condition interaction found in past risk regulation work (e.g., Murray et al., 2002), where HSEs connect following a threat, and LSEs self-protect (Cavallo et al., 2013). Although I attempted to replicate the experimental conditions common to traditional risk regulation studies (by sampling from similar populations, following exact manipulations, and using the same outcome measures), it is still possible that small variations in my materials and procedures could have contributed to these discrepancies. For instance, in the present research, Studies 2-4 were conducted online, whereas earlier risk regulation work primarily used laboratory paradigms. Although the hope is that participants complete online studies in quiet, calm settings—mimicking a laboratory setting as much as possible—the reality is that experimenters have far less control over online experimental conditions than they do over in-lab conditions. For instance, participants in online studies are free to complete the study on their

computer or smartphone, at home or in a noisy coffee shop, or while alone or with others. Participants may thus, on average, pay more attention to manipulations that are conducted in the laboratory, where there are fewer distractions. If this is the case, one may expect stronger effects from in-lab, as opposed to online, studies. However, I did conduct Study 1 in the laboratory, and although the manipulation did appear to threaten participants' relationships, I still did not find a self-esteem by condition interaction.

It is also possible that other factors, such as cohort effects, played a role in my inability to replicate Murray and colleagues' seminal work (e.g., Murray et al., 2000; 2002; 2006; Murray, Griffin, et al., 2003). For instance, are the predictors and outcomes of self-esteem changing over time? Is there something about the self-esteem of university students now that differs from the self-esteem of university students 15 years ago, when much of the risk regulation research was conducted? Certainly, some research suggests that self-esteem is increasing over time (e.g., Gentile, Twenge, & Campbell, 2010), but such evidence cannot speak to the question of whether self-esteem's association with relationship processes and outcomes is changing. One possible step for future research would be to determine whether the associations among self-esteem and relationship factors have remained consistent over the past several decades.

Lastly, it is also important to note that the exploratory mediation findings in Study 2 were inconsistent with those of McCarthy et al. (2017), whose findings suggested that highly agreeable HSEs are more likely to make risky emotional disclosures because they are more trusting. I, on the other hand, found that trust only partially mediated the association between agreeableness and responses to relationship threat. However, the lack of consistency should be considered in light of three major differences between the present research and the work of McCarthy and colleagues. First, our studies used considerably different dependent variables (i.e.,

relationship and partner appraisals in the present research vs. negative expressivity in McCarthy et al.'s research). Second, the interaction of self-esteem and agreeableness took a different form in the present studies than it did in the work of McCarthy et al. (2017), whose results suggested that, compared to other combinations of self-esteem and agreeableness, only highly agreeable HSEs were comfortable in vulnerable or emotionally risky situations with close others. My results suggest, however, that being higher in both self-esteem and agreeableness may not always be necessary in order to remain connected with one's partner in the face of relationship threats. And finally, the present experiments involved an experimental manipulation, whereas McCarthy and colleagues examined dispositional predictors only. As such, it is not especially surprising that my results do not parallel McCarthy et al.'s, nor appear to fully support the trust-as-a-mechanism explanation.

These inconsistencies should also be considered in light of the results of the additional exploratory mediation analyses conducted in the present research, which examined the mediating roles of two constructs similar to trust: unconditional regard and relationship security. The results of these analyses were relatively consistent across studies: Whereas the interaction of self-esteem and agreeableness tended not to be mediated, self-esteem, and to an even greater degree, agreeableness, were. Consistent with risk regulation theory, the cumulative mediation findings thus suggest that trust may be an important mechanism underlying the association between these traits and risk regulation tendencies. Future work could pursue this mechanism further to determine when trust mediates the effects of self-esteem and agreeableness, and when it does not.

Contributions to the Literature

The present research makes several contributions to the risk regulation and close relationships literatures. Although the risk regulation literature is well-established, it has largely focused on a few closely related dispositional predictors (e.g., self-esteem, attachment). My research represents some of the first to examine the contribution of agreeableness—a largely understudied trait in relationships research—to risk regulation in close relationships. Across four experiments, I demonstrated that the effects of self-esteem on risk regulation processes may vary with one's level of agreeableness. In general, aside from the mediation analyses, these findings generally converge with those of McCarthy et al. (2017): They suggest that different combinations of higher and lower agreeableness and self-esteem may be associated with different relationship outcomes.

In addition, my research answers calls to investigate self-esteem concurrently with Big Five traits when examining the predictors of relationship variables (e.g., Weidmann, Ledermann, & Grob, 2017). In particular, I demonstrate that self-esteem and agreeableness can work in tandem to prevent or reduce self-protective responses to relationship threats. For LSEs, being higher in agreeableness may act as a buffer against relationship threats, although the same may not be true for those higher self-esteem but lower in agreeableness. The present research thus provides direct evidence of the importance of agreeableness for close relationships, further cementing it as an important interpersonal trait.

Strengths, Limitations, and Future Directions

A key strength of the current research is its rigorous adherence to past risk regulation protocol. I chose well-established relationship threats (particularly in Studies 1-3) and deviated little in their application. I also utilized a variety of relationship threats in order to examine the

generalizability of my findings across threats. Similarly, with the exception of the accommodation measure (Study 3) and the measure of predicted thoughts and behaviours in future conflict (Study 4), my outcome measures closely mirrored those used in past risk regulation work, and tapped into a variety of important relationship outcomes. In addition, sample sizes in the present research were larger than most found in past risk regulation research (e.g., Cavallo et al., 2009; 2012; Murray et al., 2002), allowing me greater power to detect effects.

The present research, however, is not without limitations. For instance, because I sampled from undergraduate populations, my findings may not generalize to the wider population. People who are older, have had more relationship experience, or who have been in their current relationships for longer may respond to relationship threats differently. However, past risk regulation research has found similar findings among dating, newlywed, and married couples (e.g., Cavallo et al., 2009; 2012; Murray et al., 2001; 2002; 2005; 2013), suggesting that there are fundamental dispositional factors that affect responses to relationship threats, that do not vary greatly over the lifespan. These findings lend credence to the generalizability of my results. Nonetheless, future research should explore these associations among older adults and those in more established relationships.

My research also does not address the relationship contexts in which responses to relationship threats occur. An assumption of risk regulation theory is that self-protective responses are relatively harmful to a relationship and its constituent members, whereas connecting, relationship promoting responses are relatively salutary. However, McNulty and Fincham (2012) argued persuasively, with supportive evidence, that it is imperative to consider relationship contexts when considering the individual characteristics and behaviours that affect

relationship well-being. For instance, Luchies, Finkel, McNulty, and Kumashiro (2010) showed that forgiving spouses who were in relationships with agreeable partners experienced increased self-respect over time, whereas those in relationships with less agreeable partners experienced decreased self-respect. Similarly, spouses experiencing severe marital problems who made less benevolent attributions for their partner's behaviours experienced stable levels of marital satisfaction, whereas those who made more benevolent attributions experienced declines (McNulty, O'Mara, & Karney, 2008). Follow-up analyses revealed that making less benevolent attributions actually led to a reduction in the severity of the marital problems.

Although questions of partner characteristics or relationship contexts are beyond the scope of the current research, future studies may consider whether responding in a self-protective manner to relationship threats may at times be beneficial. For example, if one's partner is fundamentally disagreeable, distancing oneself from the relationship during times of conflict or stress may enable to a person to remain relatively happy and committed. Some evidence supports this idea: Compared to their highly trusting counterparts, cautiously trusting people more actively anticipate, amplify, and thwart relationship threats (Murray, Holmes, Griffin, & Derrick, 2015). And, although being less trusting of one's partner can lead to poorer relationship well-being (Murray, Bellavia, et al., 2003), when utilized in relationships with "high-risk" partners (i.e., partners who frequently behave on hurtful or uncaring ways), cautious, self-protective tendencies can actually prevent the typical declines in relationship well-being associated with lower trust (Murray et al., 2015). Similarly, it is possible that self-protective, self-distancing responses may allow people who are deeply unhappy the mental clarity and resolve to end a bad relationship. In the current research, given that participants were randomly assigned to condition, one can at least safely assume that different partner and relationship characteristics were

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distributed equally across conditions and thus did not affect the results. Still, future studies investigating when and if self-protective responses are "good" and connecting, relationship promoting responses are "bad" could further contribute to our understanding of close relationship dynamics.

Conclusions

The cumulative findings of the present work suggest that agreeableness may be as important as—if not more important than—self-esteem for relationship outcomes, and specifically for risk regulation. These patterns are worth further investigation to understand the boundary conditions on agreeableness and self-esteem as resources for resilience following relationship threat. In addition, my research suggests that there may be something "special" about HSE people who are lower in agreeableness, which warrants further investigation.

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Appendix A

Rosenberg (1965) Self-Esteem Scale (Studies 1-4)

Think about each statement that follows and rate the degree to which you agree or disagree with it on the following scale.

1	2	3	4	5	6	7	8	9
very strongly disagree		moderately disagree		neutral		moderately agree		very strongly agree

1. I feel that I am a person of worth, at least on an equal basis with others.

2. I feel that I have a number of good qualities.

3. All in all I am inclined to feel that I am a failure.

4. I am able to do things as well as most other people.

5. I feel I do not have much to be proud of.

6. I take a positive attitude toward myself.

7. On the whole I am satisfied with myself.

8. I wish I could have more respect for myself.

9. I certainly feel useless at times.

10. At times, I think I am no good at all.

Appendix B

Big Five Inventory – Agreeableness (Studies 1-4; John, Donahue, & Kentle, 1991)

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *is generally trusting*? Using the 1-5 scale below, please rate the extent to which you **agree or disagree** with each statement.

1	2	3	4	5
disagree strongly	disagree a little	neither agree nor disagree	agree a little	agree strongly

I am someone who:

1. Tends to find fault with others

2. Is helpful and unselfish with others

3. Starts quarrels with others

4. Has a forgiving nature

5. Is generally trusting

6. Can be cold and aloof

7. Is considerate and kind to almost everyone

8. Is sometimes rude to others

9. Likes to cooperate with others

Written Passage Threat Manipulation (Studies 1-3; Cavallo et al., 2009; 2012)

The following excerpt is a short passage written by researchers at the University of Waterloo for an introductory psychology textbook on Close Relationships to be published in 2018. Your task is to read the following passage and try to remember the information as best you can. You will be asked to recall details from this passage at the end of the study. Read it carefully once or twice, and when you are ready to proceed, please [inform the experimenter (Study 1); click ">>" (Studies 2-3)].

Relationship Research in the Wood Lab

Bias and Overestimation

Social psychologists at the University of Waterloo have been studying romantic relationships for many years. Throughout that time, they have discovered that although every relationship is unique, the way people think about their relationships and the ways that people in relationships behave is mostly the same from person to person. But because these similarities are not always easy to see, people think their relationships are more different from others' relationships than they really are. Our research has shown that people often lack knowledge about what is characteristic of most romantic couples and do not realize how both they and their partners change their behaviour when they become part of a couple. The biggest consequence of this lack of knowledge is that people largely *overestimate* the quality of their romantic relationship and how positively their partner perceives them. Most people's evaluations of their partner and their relationship are much *higher* than research tells us they should be.

In our lab, we have tried to study only those behaviours that couples engage in all the time. The following is a description of a week in the life of a typical romantic couple, Michael and Jen, who began a romantic relationship several months ago after meeting through a mutual friend. Their behaviours are highly typical of romantic relationships and exactly the type that we have studied in our extensive research. As you can see by our comments below (in italics), the conclusions that we have found are not always what one would expect.

On Monday, Michael and Jen made plans to study after school. They agreed to meet at the library after dinner, but Michael was a half hour late. As well, he forgot to bring Jen's textbook that he had borrowed the week before. Jen was agitated, but Michael apologized profusely and promised to bring the book to her tomorrow. This apology satisfied Jen and they continued their study date.

> *Research has demonstrated that while apologies are common in romantic relationship, many times people do not realize the extent to which their partners offer insincere apologies to avoid conflict or to alleviate feelings of guilt. Dating partners often report no true remorse when they apologize for small offences. Even though their partners usually forget about these small incidents, insincere apologies appear to be a short-term solution that may be indicative of larger issues.*

On Tuesday, Michael and Jen talked on the phone briefly in the evening and made plans to get together tomorrow night to see a movie. Michael met Jen at her house on Wednesday and they went to the theatre together. When they arrived, they were having difficulty deciding which movie to see. Michael wanted to see a recently released drama that he had read about in a magazine, whereas Jen felt more in the mood for a lighter romantic comedy. After some discussion, Michael agreed to see Jen's choice and offered to see his movie another time.

> *Our research shows that although couples often view small concessions such as these as part of romantic life, people underestimate the ability of even trivial compromises to build resentment toward their romantic partner. Compromise is necessary in every relationship, but it is usually one partner who gets his or her way more often, sometimes without either partner realizing it.*

On Thursday afternoon, Jen sent Michael an e-mail while she was in between classes and Michael quickly wrote a flattering reply, telling Jen that he really enjoyed her company and was really happy with their relationship. He said that he had never met anyone like her and that he had been thinking about her all morning.

> *Small exchanges like these are fairly characteristic of satisfied romantic couples. However, many partners also report making these exchanges because they feel obligated to. Sometimes people tell their partner not what they are truly feeling, but what they think the person wants to hear. People usually try to be honest, but even in good dating relationships people sometimes have "secret" complaints about their partners that their partners are oblivious to.*

On Friday, Michael and Jen tried to make plans for the weekend. Jen was thinking of going home that night, but Michael was trying to convince her to stay and do something with him Saturday night. During their conversation, Jen was becoming frustrated because Michael repeatedly interrupted her.

> *We have found that many people correctly perceive interruptions as a negative aspect of communication. When romantic partners interrupt each other, it may be to disrupt their partners' concentration or to divert their attention from a line of thought. Interruptions may also occur because one partner is not listening to what the other has to say. Although quite common, interrupting is a strong sign of unhealthy communication.*

Ultimately, Jen decided to stay for the weekend and they decided that the following night, they would make dinner together and then go out to a bar with some of Jen's friends. Both of them were very busy on Saturday afternoon, but Michael made time to get the groceries before Jen came over. They cooked a nice meal together and since Jen did most of the cooking, Michael offered to do the dishes. They went out to a local pub and had a great time with their friends.

> *Many romantic couples regularly cooperate and share responsibilities. One surprising fact that we have discovered is that this cooperation is frequently motivated by self-interest. Many people report offering to do things for their partner because they doubt their abilities or do not trust them with a given task.*

As well, people occasionally share responsibilities with their partner because they anticipate that not doing so will lead to conflict.

On Sunday, Michael spent most of the day studying for a biology test while Jen spent the afternoon and evening working on a paper for her politics class. Because they both were busy, they did not see each other again until the middle of the following week.

While couples in dating relationships often go without seeing each other for varying lengths of time, this in itself can have negative effects on romantic relationships. Most people report a desire to maintain some independence while in a romantic partnership, but this independence often comes at the cost of intimacy. It seems that the phrase "out of sight, out of mind" is highly applicable to even the best dating partners.

Written Passage No Threat Control Manipulation (Studies 1-3; Cavallo et al., 2009; 2012)

The following excerpt is a short passage written by researchers at the University of Waterloo for an introductory psychology textbook on Close Relationships to be published in 2018. Your task is to read the following passage and try to remember the information as best you can. You will be asked to recall details from this passage at the end of the study. Read it carefully once or twice, and when you are ready to proceed, please [inform the experimenter (Study 1); click ">>" (Studies 2-3)].

Relationship Research in the Wood Lab

Bias and Underestimation

Social psychologists at the University of Waterloo have been studying romantic relationships for many years. Throughout that time, they have discovered that although every relationship is unique, the way people think about their relationships and the ways that people in relationships behave is mostly the same from person to person. But because these similarities are not always easy to see, people think their relationships are more different from others' relationships than they really are. Our research has shown that people often lack knowledge about what is characteristic of most romantic couples and do not realize how both they and their partners change their behaviour when the become part of a couple. The biggest consequence of this lack of knowledge is that people largely *underestimate* the quality of their romantic relationship and how positively their partner perceives them. Most people's evaluations of their partner and their relationship are much *lower* than research tells us they should be.

In our lab, we have tried to study only those behaviours that couples engage in all the time. The following is a description of a week in the life of a typical romantic couple, Michael and Jen, who began a romantic relationship several months ago after meeting through a mutual friend. Their behaviours are highly typical of romantic relationships and exactly the type that we have studied in our extensive research. As you can see by our comments below (in italics), the conclusions that we have found are not always what one would expect.

On Monday, Michael and Jen made plans to study after school. They agreed to meet at the library after dinner, but Michael was a half hour late. As well, he forgot to bring Jen's textbook that he had borrowed the week before. Jen was agitated, but Michael apologized profusely and promised to bring the book to her tomorrow. This apology satisfied Jen and they continued their study date.

> *Many times, people do not realize the extent to which offering and accepting apologies to and from romantic partners for small wrongdoings is a key component of healthy romantic relationships. Dating partners often report feeling true remorse, even when they apologize for small offences. In fact, offering apologies appears to be a short-term solution that often has long-term benefits to the relationship.*

On Tuesday, Michael and Jen talked on the phone briefly in the evening and made plans to get together tomorrow night to see a movie. Michael met Jen at her house on Wednesday and they went to the theatre together. When they arrived, they were having difficulty deciding which movie to see. Michael wanted to see a recently released drama that he had read about in a magazine, whereas Jen felt more in the mood for a lighter romantic comedy. After some discussion, Michael agreed to see Jen's choice and offered to see his movie another time.

> *Our research shows that small concessions such as this one are highly characteristic of romantic life and the ability to make even seemingly trivial compromises is often integral to the success of a romantic relationship. Compromise is necessary in every relationship, and it is often the case that both partners make equal numbers of sacrifices over the course of a relationship, although sometimes neither partner realizes it.*

On Thursday afternoon, Jen sent Michael an e-mail while she was in between classes and Michael quickly wrote a flattering reply, telling Jen that he really enjoyed her company and was really happy with their relationship. He said that he had never met anyone like her and that he had been thinking about her all morning.

> *Small exchanges such as this one are common among romantic couples and even brief electronic communications between romantic partners can be a sign of true affection. People are remarkably honest with their romantic partners and do not simply tell them what they think the person wants to hear. People rarely have "secret" compliments or complaints about their partners that their partners are oblivious to.*

On Friday, Michael and Jen tried to make plans for the weekend. Jen was thinking of going home that night, but Michael was trying to convince her to stay and do something with him Saturday night. During their conversation, Jen was becoming frustrated because Michael repeatedly interrupted her.

> *We have found that many people incorrectly perceive interruptions as a negative aspect of communication. In reality, couples often interrupt each other because they can anticipate what the person is going to say or because they have a special understanding with their partner about a given topic. Maybe surprisingly, interruptions can actually be a sign of healthy communication.*

Ultimately, Jen decided to stay for the weekend and they decided that the following night, they would make dinner together and then go out to a bar with some of Jen's friends. Both of them were very busy on Saturday afternoon, but Michael made time to get the groceries before Jen came over. They cooked a nice meal together and since Jen did most of the cooking, Michael offered to do the dishes. They went out to a local pub and had a great time with their friends.

> *Many romantic couples regularly cooperate and share responsibilities. Predictably, this skill has been proven to be quite important to romantic relationships. Even minor cooperative efforts such as this one can have lasting effects on people's satisfaction with their relationship.*

On Sunday, Michael spent most of the day studying for a biology test while Jen spent the afternoon and evening working on a paper for her politics class. Because they both were busy, they did not see each other again until the middle of the following week.

> *While couples in dating relationships often go without seeing each other for varying lengths of time, this in itself has little negative effect on romantic relationships. Most people report a desire to maintain some independence while in a romantic partnership and this independence usually benefits the relationship and facilitates intimacy. It seems the phrase "absence makes the heart grow fonder" is highly applicable to a large majority of dating partners.*

Relationship and Partner Appraisals Composite (Studies 1-4; Berscheid et al., 1989; Cavallo et al., 2009; 2012; MacDonald & Ross, 1999; Murray et al., 1996; 1998; 2002; Rusbult et al., 1998)

Subjective Closeness Inventory items

1	2	3	4	5	6	7
not at all close			neutral			extremely close

1. Relative to all **your other relationships** (both same and other sex), how would you characterize your relationship with your partner?

2. Relative to what you know about **other people's close relationships**, how would you characterize your relationship with your partner?

1	2	3	4	5	6	7
strongly disagree	disagree	somewhat disagree	neither agree nor disagree	somewhat agree	agree	strongly agree

Unconditional Regard items *(not included in Studies 2 and 4)*

1. My partner loves and accepts me unconditionally

2. My partner regards me as very important in their life.

3. I am confident my partner will always want to look beyond my faults and see the best in me. *(Only included in Study 3)*

Optimism items

1. In the future, my partner will forgive me if I disappoint them.

2. In the future, my partner will consider ending our relationship.

3. In the future, my partner will compliment or praise some aspect of my personality.

Perceptions of the Partner items

1. My romantic partner is kind and affectionate

2. My romantic partner is critical and judgmental

3. My romantic partner is understanding

4. My romantic partner is thoughtless

Rusbult's Investment Model Scale – Satisfaction Subscale items

1. My relationship makes me very happy

2. My relationship is much better than others' relationships

3. My relationship does a good job of fulfilling my needs for intimacy, companionship, etc.

Rusbult's Investment Model Scale – Commitment Subscale items

1. I am committed to maintaining my relationship with my partner

2. I would not feel very upset if our relationship were to end in the near future

3. It is likely that I will date someone other than my partner within the next year

Relationship Length Optimism items

1. My partner and I will be together in 6 months.

2. My partner and I will be together in 2 years.

3. My partner and I will be together in 5 years.

Secret Selves (Weaker Threat) Manipulation (Study 2; Murray et al., 2002)

People sometimes have sides to themselves that they would rather their partner not see. In this next part of the study, we are interested in the way you think about yourself and your relationship, and **the sides of yourself that you might try to keep from your partner**. Please take a few minutes now to **complete ANY THREE of the following sentences**.

Note: Because this survey is being conducted online through SONA, the responses you provide, though confidential, are not truly anonymous. Please keep this in mind when deciding what you choose to tell us about yourself or your life experiences.

1. In terms of my **personal habits or behaviours**, I try to keep my partner from seeing

   _____
   _____

2. In terms of my **personal preferences or opinions**, I try to keep my partner from seeing

   _____
   _____

3. In terms of my **personality characteristics**, I try to keep my partner from seeing

   _____
   _____

4. In terms of my **private thoughts**, I try to keep my partner from seeing

   _____
   _____

5. In terms of my **past**, I try to keep my partner from seeing

   _____
   _____

Shown to participants on the next page:

Thank you for taking the time to complete those sentences.

We are particularly interested in people's "secret selves," because our research has shown that partners eventually discover each other's negative, hidden sides, and conflicts often develop as a result.

Adapted Trust Scale (Study 2; Reis & Carmichael, 2006)

Thinking of your current romantic partner, rate your agreement with the following statements using the scale provided.

1	2	3	4	5	6	7	8	9
not true at all		somewhat true		moderately true		very true		completely true

My partner….

1. Is an excellent judge of my character.

2. "Gets the facts right" about me.

3. Esteems me, shortcomings and all.

4. Values my abilities and opinions.

5. Really listens to me.

6. Is responsive to my needs.

Appendix H

Unconditional Regard Scale (Studies 2 and 4; Murray et al., 2002)

Please respond to the following statements using the scale provided.

1	2	3	4	5	6	7
not at all true			moderately true			completely true

1. My partner loves and accepts me unconditionally

2. My partner gets irritated or impatient with some of my personal qualities

3. I am confident my partner will always want to look beyond my faults and see the best in me

4. My partner believes I have many good qualities.

5. My partner regards me as very important in their life.

6. My partner values and admires my personal qualities and abilities.

7. Though times may change and the future is uncertain, I know my partner will always be ready and willing to offer me strength and support.

8. My partner is never concerned that unpredictable conflicts and serious tensions may damage our relationship because they know we can weather any storm.

9. Whenever we have to make an important decision in a situation we have never encountered before, I know my partner will be concerned about my welfare.

Appendix I

Relationship Security (Studies 2 and 3; Murray et al., 2005)

Think about each statement that follows and rate the degree to which you agree or disagree with it on the following 1-7 scale.

1	2	3	4	5	6	7
strongly disagree	disagree	somewhat disagree	neither agree nor disagree	somewhat agree	agree	strongly agree

1. My partner is very tolerant and accepting of my faults.

2. I am confident my partner will always want to stay in our relationship.

3. My partner feels extremely attached to me.

Appendix J

Felt Uncertainty (Study 2; McGregor et al., 2001)

Think about each statement that follows and rate the degree to which you agree or disagree with it on the following 1-7 scale.

1	2	3	4	5	6	7
strongly disagree	disagree	somewhat disagree	neither agree nor disagree	somewhat agree	agree	strongly agree

Right now, I feel…

1. Uneasy

2. Bothered

3. Uncomfortable

4. Calm

5. Anxious

6. Uncertain

Appendix K

Accommodation (Study 3; Rusbult et al., 1991)

Please read each of the following statements concerning the manner in which you respond to problems in your relationship. Use the following scale to record a response for each item.

1	2	3	4	5	6	7	8	9
very strongly disagree		moderately disagree		neutral		moderately agree		very strongly agree

Next time my partner…

1. Says something really mean, I will threaten to leave him/her.

2. Is rude to me, I will try to resolve the situation and improve conditions.

3. Behaves in an unpleasant manner, I will forgive my partner and forget about it.

4. Does something thoughtless, I will avoid dealing with the situation.

5. Is rude to me, I will feel so angry I will want to walk right out the door.

6. Behaves in an unpleasant manner, I will calmly discuss things with him/her.

7. Does something thoughtless, I will patiently wait for things to improve.

8. Next time my partner says something really mean, I will sulk and not confront the issue.

9. Behaves in an unpleasant manner, I will do something equally unpleasant in return.

10. Does something thoughtless, I will try to patch things up and solve the problem.

11. Says something really mean, I will hang in there and wait for his/her mood to change – these times pass.

12. Is rude to me, I will ignore the whole thing.

13. Does something thoughtless, I will do things to drive my partner away.

14. Behaves in an unpleasant manner, I will spend less time with him/her.

15. Says something really mean, I will talk to my partner about what's going on, trying to work out a solution.

16. Is rude to me, I will give him/her the benefit of the doubt and forget about it.

Appendix L

Conflict Manipulation and Predicted Thoughts and Behaviours in Future Conflict (Study 4)

Major Conflict Condition:

Please identify the **most significant unresolved problem in your relationship**. Think about the last major argument or disagreement you had with your partner about this topic or issue. Remember what you were arguing about and why you were upset with your partner. Remember what you were thinking about and how you felt during the argument.

My partner and I have a **major unresolved conflict** about _____.

Because this issue remains unresolved, it is likely to come up again. Please answer the following questions with that specific problem in mind.

Minor Conflict Condition:

Please identify a **minor unresolved problem in your relationship**. Think about the last minor argument or disagreement you had with your partner about this topic or issue. Remember what you were arguing about and why you were upset with your partner. Remember what you were thinking about and how you felt during the argument.

My partner and I have **a minor unresolved conflict** about _____.

Because this issue remains unresolved, it is likely to come up again. Please answer the following questions with that specific problem in mind.

How upset/distressed are you about this conflict at the moment?

1	2	3	4	5	6	7
not at all upset/ distressed			moderately upset/ distressed			extremely upset/ distressed

How major/severe would you say this conflict is?

1	2	3	4	5	6	7
not at all major/ severe			moderately major/ severe			extremely major/ severe

Predicted thoughts and behaviours in future conflict (randomized in study):

Next time my partner and I have a major/minor conflict about (*problem piped in from above answer*), I will likely:

1	2	3	4	5	6	7
not at all likely			moderately likely			extremely likely

1. Try to make my partner feel guilty about it.

2. Not back down from my point of view.

3. Try to compromise with my partner.

4. Talk over my partner.

5. Try to manipulate my partner.

6. Consider my partner's perspective—really put myself "in their shoes."

7. Withdraw emotionally from my partner.

8. Give my partner the "silent treatment."

9. Use physical aggression to try to convince my partner.

10. Use a verbally aggressive style to try to convince my partner.

11. Criticize my partner.

12. Threaten to leave my partner.

13. Get angry with my partner.

14. Try to remain calm.

15. Listen to my partner's point of view.

16. Adopt a cooperative, accommodating style to try to resolve things.

17. Threaten to withhold something from my partner (e.g., money, sex, affection) if I don't get my way.

18. Worry that my partner won't listen to my point of view.

19. Do my best to negotiate with my partner to reach an outcome that is acceptable to both of us.

20. Keep my emotions under control.

21. End up feeling hurt.

22. Show my partner, non-verbally, that my feelings are hurt.

23. Put my partner's concerns ahead of my own.

24. Do things that make it clear I am upset afterwards (e.g., slam doors, stomp around, sigh loudly).

25. Know that even though we disagree on this issue, my partner has my best interests at heart.

26. Know that even though we disagree on this issue, my partner loves me.

27. Feel rejected by my partner.

28. Be careful not to say anything hurtful.

29. Be direct with my partner about my thoughts and feelings.

30. Be hesitant to truly open up and let my partner know I feel.

31. Be confident that our relationship will weather the conflict.

32. Tell my partner that we'll get through this together

33. Love my partner a bit less afterwards and feel distant.

34. Defer to whatever my partner wants.

35. Need some space from my partner afterwards.

36. Be willing to "lose" the argument, giving in a bit to maintain harmony

37. Try to coerce my partner into letting me win the argument.

38. Express affection to my partner afterwards.

39. Say something to hurt my partner.