



# The manageability of empathic (in)accuracy during couples' conflict: Relationship-protection or self-protection?

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Published online: 31 March 2018

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## Abstract

The current study sought to expand upon research on motivated empathic (in)accuracy by testing assumptions underlying the empathic accuracy model, namely if a perceiver's level of empathic accuracy is variable and might be associated with different outcomes depending the situation. More specifically, the model assumes that (a) the perception of threat in the thoughts/feelings of an interaction partner can result in a lower level of empathic accuracy, and (b) empathic accuracy can both improve and harm situational well-being on the personal and relationship level. These assumptions were tested in a laboratory-based study in which couples participated in a conflict interaction task and reported on their thought processes during a video-review task. All participants also completed a similar standard-stimulus task. A shift in participants' motivation to be accurate to a motivation to be inaccurate in response to perceived threat could not be detected. Men's higher levels of empathic accuracy for non-threatening feelings of their female partner were predictive of an increased feeling of closeness in men. Women's higher levels of empathic accuracy for non-threatening feelings of the male partner were predictive for a better mood in women. A harmful effect of empathic accuracy for threatening thoughts/feelings on situational well-being was not found.

**Keywords** Empathic accuracy · Understanding · Couple conflict · Motivation · Perceived threat

## Introduction

A dominant prescriptive narrative concerning communication strategies in intimate relationships emerged in the early 1980s, emphasizing the importance of self-disclosure to reduce the number of misconceptions and thus, to facilitate mutual understanding between partners (Birchler 1979). To date, the assumption that understanding—both actual understanding (Sened et al. 2017) and perceived understanding (Pollmann and Finkenauer 2009)—is crucial in intimate relationships has largely been empirically supported, and interventions fostering mutual understanding between partners are frequently used within couple therapy. However, not all researchers and practitioners agree on this assumption as studies have also found associations between understanding and raised levels of conflict (Sillars 1985) on the one hand, and lower levels of autonomy, privacy (Gilbert 1976; Olson

et al. 1979), and relationship satisfaction (Sillars et al. 1983; Sillars and Scott 1983; Simpson et al. 1995) on the other hand. In summary, systematic research integrating these contrasting findings on multiple aspects of understanding is not available, which impedes us from taking a clear position in this debate.

The aim of the present study was therefore to clarify the conflicting assumptions concerning understanding by investigating empathic accuracy (i.e., an objective measure of understanding) during conflict interactions in the context of intimate relationships. Empathic accuracy is defined as the extent to which individuals can accurately infer another person's unspoken thoughts and feelings as they spontaneously occur during the course of natural interactions (Ickes 1993, p. 588). Stemming from the contradicting assumptions concerning understanding introduced above, Ickes and Simpson (1997) designed a theoretical framework regarding empathic accuracy with the central aim of answering three principal questions: (1) Is the level of empathic accuracy manageable (e.g., dialing it up or down)?; (2) If so, which factors will influence an individual's level of empathic accuracy?; and (3) What is the effect of an individual's level of empathic

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accuracy on his/her situational well-being? Although these questions are intuitively interesting, very little systematic research has been conducted, and certainly not within the context of intimate relationships. In the paragraphs that follow, we will attempt to answer these principal questions based on the limited research that has been conducted to date. Afterwards, the research questions of the current study will be introduced.

### Empathic accuracy is manageable

Whether or not an individual's level of empathic accuracy is manageable seems to have been probed by research aimed at identifying characteristics of "good" versus "bad" perceivers (where the *perceiver* is a person who infers a *target's* thoughts/feelings). This appeared to be extremely difficult as no personality or other stable individual variables have been discovered that were able to predict which perceivers would achieve high versus low levels of empathic accuracy (Ickes et al. 2000). Yet, some relationship and target variables have been found to be more promising in indicating when perceivers were *motivated* to be empathically (in)accurate and this has been found to be positively associated with their accuracy level (see Hodges et al. 2015 for an overview). These findings have led to the model's first general assumption that empathic accuracy is manageable (and thus not a fixed ability) depending on proximal and distal factors.

Indeed, several studies have actually provided evidence for some of these factors operating as 'motives' that foster an enhancement of perceivers' levels of empathic accuracy. For instance, monetary incentives have been found to be situational motives for empathic accuracy for verbal cues (Klein and Hodges 2001). Also, when both men and women were encouraged to be accurate—because they believe this is an aspect of a socially desirable gender role—their empathic accuracy has been found to increase (Thomas and Maio 2008). Likewise, characteristics inherent to the perceiver that are triggered during interactions with others have been found to stimulate empathic accuracy, for example a perceiver's need to belong (Pickett et al. 2004) or their tendency to be securely attached to others in contrast to an avoidant attachment tendency (Simpson et al. 2011).

These findings have led to the conclusion that empathic accuracy can be defined as a *situation-dependent phenomenon*<sup>1</sup> rather than a fixed ability. However, this does not

<sup>1</sup> This term has been used instead of *motivation-based* empathic accuracy as some caution is recommended when using the term *motivation*. Although, the factors described in the model that affect the level of accuracy are defined as 'motives' (Ickes 2011), the assumptions stemming from the model are predominantly intuitive (because to date there has been little empirical verification of the full model) and the designated underlying motives only allow for implicit measurement. Furthermore, motivation is not merely a quantitative construct as some authors have stated that the quality or type of motiva-

imply that motivated perceivers will show perfect empathic accuracy because each individual differs in their ability to perceive and to interpret (non) verbal signals conveyed by a target. Furthermore, each target also differs in how clearly (s)he emits these signals, or in other words, how expressive (s)he is. These restrictions are what Ickes has defined as "individual-level distal factors [...] that set the range—the upper and the lower boundaries—of empathic accuracy in a given interaction" (Ickes and Simpson 1997, p. 235). These individual factors determine the levels between which empathic accuracy can vary, and thus, when situational factors will play a more prominent role in stimulating or downgrading empathic accuracy.

### Partners' levels of empathic accuracy

In addition to the assumption that empathic accuracy is manageable, the model of empathic accuracy focuses on the question of which factors stimulate a perceiver's level of empathic accuracy (i.e., dial it up) and which factors downgrade the level of empathic accuracy (i.e., dial it down).

In line with the accepted belief that higher levels of empathic accuracy are beneficial for intimate relationships, the general assumption of the empathic accuracy model states that intimate partners should be guided by an *accuracy motive* (i.e., a motive to reach accurate inferences; Kunda 1990) in everyday, routine interactions as this generally results in enhanced relationship stability and closeness. Indirect evidence for this assumption can be derived from research documenting that partners who are dating or partners in new relationships show increased levels of empathic accuracy (Thomas and Fletcher 2003; Thomas et al. 1997), thereby suggesting that partners within these kind of relationships are motivated by getting to know each other, and the process of estimation of the target partner's commitment to the relationship and beliefs about the future of the relationship. It should be noted, however, that besides the studies cited above, no other research directly testing this assumption has been conducted.

However, other studies have revealed that certain factors operate as 'motives' for partners to downgrade the level of empathic accuracy (i.e., move towards empathic *inaccuracy*). More specifically, there are situations in which an *esteem-regulatory motive* (i.e., a motive to make desirable/esteem-enhancing inferences) can occur instead of an accuracy motive, and consequently, someone can shift from one motivational mindset to another, according to their needs

Footnote 1 (continued)

tion is also important when drawing conclusions about the influence of motivation (Ryan and Deci 2000; Vansteenkiste et al. 2006), but these aspects of motivation are not included in the present study.

and concerns given the current situation. More specifically, every couple has certain areas or topics of conflict (i.e., “danger zones”) that should not be approached or discussed for the sake of the relationship. Nevertheless, a partner may introduce such a topic, and initiate a potentially *threatening*<sup>2</sup> interaction. In such a situation, Ickes and Simpson (1997) assume that the non-initiator has two options, either the topic may be rejected and the non-initiator may try to escape from the situation, or, when escaping is impossible or inappropriate, this partner may try to minimize potential harm by avoiding or ignoring the threatening discussion. The empathic (in)accuracy model proposes that someone may engage in cognitive avoidance or empathic *inaccuracy*, when their partner’s or their own thoughts/feelings are perceived as likely to cause distress because this defense strategy may be efficient in preserving a low level of personal and relational distress in the short-term (Ickes and Simpson 1997).

Evidence for this assumption comes from a study by Simpson et al. (1995) that showed an association between high levels of perceived threat and lower levels of empathic accuracy. More specifically, partners who were dating who were confronted with attractive opposite-sex alternatives perceived these as threats to their relatively new relationships and consequently showed lower levels of empathic accuracy. This finding suggests that the participants felt the need to protect their relationship from accurate inference of their partner’s thoughts about the attractive alternatives. Again, however, it should be noted that research directly targeting this assumption is scarce.

### Empathic accuracy and partners’ situational well-being

The main key in unraveling the discussion about whether empathic accuracy has a positive or negative role to play in intimate relationships can be found in the final assumption of the EA-model. Both empirical and clinical observations indicate that empathic accuracy has the potential to either harmonize or harm intimate relationships. However, combining the results of these observations overlooks the important distinction between the effect of empathic accuracy on long-term outcomes versus short-term outcomes, whilst also denying the existence of *benevolent* misunderstandings.

### Long-term versus short-term outcomes

Previous work on social support (Verhofstadt et al. 2008, 2016) has found that empathic accuracy is predictive of better support provision as individuals who are more able to recognize their partner’s needs can provide more welcome support to their partner in distress. Empathic accuracy can also prevent interactions from escalating into threatening conflicts by stimulating accommodative behavior (Kilpatrick et al. 2002) or by reminding someone that their partner is devoted (Gordon and Chen 2015)—as reflected by an accurate understanding of the target’s feelings and perspectives—during disagreements. Taken together, empathic accuracy can be considered to be beneficial to relationships.

However, some nuance is necessary, as an important study (Simpson et al. 2003) based on the assumptions underlying the empathic accuracy model has convincingly demonstrated that the effect of empathic accuracy on short-term outcomes can differ depending on the situation. The findings indicated that when the perceiving partner reached higher levels of empathic accuracy with regard to the target partner’s thoughts/feelings and these were rated as relationship-threatening, then his or her post-interaction feelings of closeness diminished in comparison to perceivers who ‘dialed down’ their accuracy, therefore not experiencing such a decrease. These findings demonstrate that the short-term consequences of empathic accuracy depend on a perceiver’s subjective experiences of threat (i.e., *perceived threat*) given the situation. When taking a closer look at the association between perceived threat and the consequences of partners’ levels of empathic accuracy, it is noticeable that these consequences are already inherent to the definition of perceived threat. More specifically, a situation can only be perceived as threatening when the consequences resulting from accurately inferring the partner’s thoughts/feelings are assessed as negative. The former suggests that a context cannot be characterized as threatening ‘as such’ but depends on the perceptions and assessment of the perceiving partner.

### Benevolent misunderstandings

A study by Sillars (1985) suggested three cases in which the consequences of empathic accuracy might be assessed as negative, namely by revealing (1) *irreconcilable differences* (differences or disagreements that cannot be resolved), (2) *benevolent misconceptions* (assumptions about the partner or relationship that are not based on reality but have the intention of improving or maintaining relationship satisfaction and stability), and (3) *unpleasant truths* (distressing interpretations or assumptions held or formed by the target about the perceiving partner’s behavior or character). Disclosing this kind of information might have an impact on either the *relationship*, by increasing conflict or relationship insecurity,

<sup>2</sup> “Non-threatening” versus “threatening” interactions are defined by “the degree to which the perceiver feels [not threatened versus] highly threatened by the consequences that would likely result from accurately inferring the partner’s thoughts/feelings” (Ickes and Simpson 1997, p. 235).

on the *perceiver's self*, by undermining a consistent self-view or belief, or on both. How partners cope with these disclosures will differ from individual to individual, however, these disclosures generally have a short-term destabilizing effect, reflected in a post-interaction drop in relationship well-being or/and personal well-being. So, it should be noted that greater understanding can also increase distress and frustration within the relationship.

### Relationship versus self-protection

These findings lead us to the hypothesis that it might not just be relationship-protection, as specified by the model, that can be a motive to be empathically *inaccurate* during potentially threatening situations, but that there is also a role for *self-protection* serving as a similar motive. Implicit evidence for self-threat as an underlying motive for empathic inaccuracy has been found in research investigating the content of partners' thoughts (Authors' citation; Sillars et al. 2000). These studies suggest that an individual's thoughts during conflict often concern their partner's behavior or personality, and can be labeled as 'personal appraisals' (i.e., thoughts including "personal evaluations and perceived characteristics of the partner, or the self"; Sillars et al. 2000, p. 487). This implies that although a thought can be perceived as possessing no potential threat to a relationship, the same thought can be perceived as very threatening to the perceiver's self-esteem or self-image. The latter may trigger inaccuracy as a way of preserving an individual's dignity and pride, regardless of how they are perceived by their partner (i.e., self-verification theory; Swann 1983; the relationship dissolution model; Fine and Harvey 2013).

### The present study

The main focus of this study was to examine the assumptions held by the empathic accuracy model. Taken together, if these assumptions are correct, then (a) a partner's level of empathic accuracy is manageable within the boundaries of his or her ability, (b) a partner's level of empathic accuracy should be negatively associated with perceived relationship-threat, and (c) the association between empathic accuracy and short-term (relationship/personal) well-being should be moderated by perceived (relationship/self) threat.

### Manageability

To test the first assumption, partners' *baseline levels of empathic accuracy* will be determined as this sets the lower boundary of their empathic accuracy ability. Therefore, the level of empathic accuracy when confronted with an unknown target was measured in addition to the participant's level of empathic accuracy for the own partner. This baseline

accuracy was measured by means of the *standard stimulus paradigm* in which each partner observes an interacting stimulus couple (SS-paradigm; Kagan 1977). A feature of the SS-paradigm necessary to determine a reliable baseline score is that every individual infers the same target "stranger" which (1) ensures that there is no shared history or relationship between the target and the perceiver, and (2) allows us to compare the accuracy scores of the different perceivers. The absence of a shared history between the perceiver and target is necessary to make sure that each perceiver's inferences are entirely based on his or her ability to detect and interpret their target's situational cues (whilst the obviousness of the target's cues, i.e., readability, is controlled and invariable; Marangoni et al. 1995). Furthermore this interaction should be perceived as non-threatening because the perceiver is not personally involved in the interaction.

Taken together, the first part of our assumption predicted that empathic accuracy is manageable and thus partners' accuracy scores should fluctuate across the seven points of measurement during the interaction (*H1*). Furthermore, following the reasoning of the empathic accuracy model, our second hypothesis predicted that a perceiving partner's level of empathic accuracy for their own target partner's non-threatening thoughts/feelings should be higher than the perceiver's level of empathic accuracy for the unknown target's thoughts/feelings (*H2a*), due to an underlying *accuracy motive* which will be present when inferring detail from one's own partner but not when inferring from an unknown partner (in addition to the shared knowledge on which partners can rely when making inferences).

### Perceived threat

In contrast to this accuracy motive for predicting moderate to high levels of empathic accuracy for non-threatening thoughts/feelings, is the assumption of an *esteem-regulatory motive* to predict low levels of empathic accuracy (i.e., inaccuracy) for threatening thoughts/feelings. This esteem-regulatory motive is considered as a defensive mechanism that protects short-term well-being. Thus, the second part of the first hypothesis predicted that the perceiving partner's level of empathic accuracy for the target partner's threatening thoughts/feelings would be lower than the perceiving partner's level of empathic accuracy for the target partner's non-threatening thoughts/feelings, and may even drop below their baseline level of empathic accuracy (i.e., the lower boundary of empathic ability measured in the SS-paradigm; *H2b*).

Additionally, previous research has found indications that accuracy for thoughts/feelings can be distinguished at an empirical and conceptual level (e.g., Barone et al. 2005; Ickes and Cheng 2011), therefore, empathic accuracy was split into empathic accuracy for thoughts and empathic

accuracy for feelings. However, no specific predictions on the differential impact of perceived threat on accuracy for thoughts versus feelings can be derived from the existing empathic accuracy literature.

### Situational well-being

Finally, we offer predictions about the association between empathic accuracy for thoughts/feelings and short-term well-being as moderated by perceived threat. As our previous hypothesis predicted a drop in empathic accuracy when threat is perceived, the subsequent hypothesis tested whether the assumption of an underlying protection mechanism is a valid one by taking the consequences of empathic (in)accuracy into account. Therefore, we compared the association between a perceiving partner's level of empathic accuracy for the target partner's *non-threatening* thoughts and feelings and short-term well-being (i.e., post-interaction measures of well-being) with the association between a perceiving partner's level of empathic accuracy for the target partner's *threatening* thoughts and feelings and short-term well-being. As already introduced above, the empathic accuracy model assumes that an underlying protection mechanism is activated to protect relationship well-being in the short term, however, the current study assumed that this mechanism is also activated to protect the perceiver's personal well-being. More specifically, the second hypothesis predicted a positive association between empathic accuracy for thoughts/feelings rated as not threatening to the relationship and the perceiving partner's level of relationship closeness (i.e., a situational measure of relationship well-being; *H3a*) and a positive association between empathic accuracy for thoughts/feelings rated as not threatening to the perceiving partner's self and his/her mood (i.e., a situational measure of personal well-being; *H3b*). Furthermore, our third hypothesis predicted a negative association between empathic accuracy for thoughts/feelings rated as threatening to the relationship and the perceiving partner's reported level of relationship closeness (*H4a*) and a negative association between empathic accuracy for thoughts/feelings rated as threatening to the perceiving partner's self and his/her mood (*H4b*).

### Expansion of the initial model

Although Ickes and Simpson (1997) remarked that the relationship-protection motive might only be clearly evident for perceivers who are highly committed to their relationship, this moderating variable was not included in the final model. However, we assumed that the predicted negative association between empathic accuracy for relationship-threatening thoughts/feelings on relationship closeness would be moderated by a perceiver's level of commitment (*H5a*). Similarly, as the current study also focused on perceived self-threat,

we assume that the value that each partner reported placing on the goal of holding a consistent view of them self (i.e., their strength of self) would moderate the predicted negative association between empathic accuracy for thoughts/feelings rated as threatening to the perceiver's self and the perceiver's mood (*H5b*). Finally, we took into account that women might respond more to perceived threat to their relationship as reflected in their empathic accuracy levels and reported well-being because women are described to be more relationship-oriented in their thinking about relationships and in their self-presentations than men (e.g., Cross and Madson 1997), whereas men might react more to perceived threat to themselves (e.g., Vanhee et al. 2016). Therefore, potential gender differences were explored.

### Method

The present data were collected within a broader observational study on conflict in couples; some results of this study—unrelated to the present research questions—already have been published (Hinneken et al. 2016a, b).

### Participants

The sample consisted of the 310 members of 155 cohabiting/married heterosexual couples recruited in the context of a large observational study called the “[First author's institution] Couple Study”. The recruitment strategy enlisted couples to volunteer for the study through a general call (via posters and social media), and through the contacts of a group of 16 Master's level clinical psychology students who recruited couples in their networks including family, friends, and neighbors. Participation was limited to Dutch-speaking couples who had been together in a heterosexual relationship for at least 1 year and married or cohabiting for at least 6 months. The data of three couples that were included in the original sample were later excluded from the analyses due to missing questionnaire responses or questionnaire responses that revealed failure to meet the inclusion criteria. With 150 individuals and given an Intra Class Correlation of 0.5 for both empathic accuracy and threat the study has about 90% power to detect a 0.10 correlation between those variables at the 0.05 significance level.

The couples had been together at the time of the study for an average of 12.15 years ( $SD = 11.76$ ; range = 1–47 years). The men averaged 36.29 years of age ( $SD = 14.05$ ) and the women averaged 34.21 years ( $SD = 13.60$ ) (age range = 19–76 years). The sample represented several levels of education: the highest level of education was primary education for 6 individuals (1.9%), lower secondary school for 29 individuals (9.4%), higher secondary school for 101 individuals (32.6%), short courses of higher education for

96 people (31.0%), and long courses of higher education for 75 individuals (24.2%), while 1 individual had completed a PhD program (0.3%), and 2 individuals had an unknown level of education due to missing data.

## Procedure

Couples who expressed interest in taking part were visited at home, where they were provided with information about the study and evaluated to determine if they met the inclusion criteria. The partners received instructions to independently complete online questionnaires that measured relationship satisfaction and other variables not relevant to the current report. After both partners had completed the questionnaires, they were contacted by telephone to schedule an appointment for the observational part of the study, which could take place either at the university or at the couple's home. The observational part of the study consisted of a conflict interaction and a post-interaction video-review task. Each couple received monetary compensation of €20 for completing the questionnaire session and an additional €20 for completing the observational session. Participants were informed that they could withdraw from the investigation at any time; however, all couples completed both phases of the research. The study was approved by the ethical committee of the University of Ghent.

## Commitment

Partners' level of commitment to the relationship was assessed with a subscale of the Investment Model Scale (IMS; Rusbult et al. 1998; Dutch translation of; Van Lange et al. 1997). The questionnaire consists of four subscales (*satisfaction*, *alternatives*, *commitment* and *investment*), but for the purpose of the current study, we only used the commitment scale to gauge how engaged a partner was in the relationship and how dependent they were willing to be. The items were scored on a nine point-Likert scale ranging from 1 = *totally disagree* to 9 = *totally agree*, and were summed to make a total score. This scale has been found to be the strongest predictor of longevity in a relationship beyond the other subscales (e.g., Drigotas and Rusbult 1992; Rusbult et al. 1986). The internal consistency of the scale was acceptable (Cronbach's  $\alpha_{\text{men}} = 0.75$ , and  $\alpha_{\text{women}} = 0.68$ ).

## Strength of identity

The Sense of Self Scale (SOS; Flury and Ickes 2007) was developed to measure the strength of an individual's identity. The questionnaire consists of 12 items that measure four aspects of identity: (1) difficulty in keeping one's own identity separate from that of others, (2) a lack of knowledge about one's own interests, opinions, and personality,

(3) sudden shifts in feelings, values, and preferences, and (4) the feeling of a tenuous existence. The items are scored on a 4 point-Likert scale (ranging from 1 = *not at all typical for me* to 4 = *very typical for me*). Individuals who have a weak sense of self will have a high total score indicating that they feel unsure about who they are, what they think or what their own opinions are. Individuals who have a strong sense of self can be described as being certain about who they are, having firm personal preferences, and having a clearly defined personality. The internal consistency of the scale was good (Cronbach's  $\alpha_{\text{men}} = 0.83$ , and  $\alpha_{\text{women}} = 0.83$ ).

## Conflict interaction task

In the observational part of the study, the couples were asked to participate in a conflict discussion task that was similar to those used in previous studies on marital conflict (e.g., Fletcher and Thomas 2000; Simpson et al. 2003). Couples who chose to come to the university were escorted to a laboratory that was furnished to resemble a living room but equipped to allow video-recording of the conflict discussion ( $n = 114$ ). In cases in which the interaction task was conducted at the couples' home, the partners were seated in a quiet room where we installed a small portable camera ( $n = 41$ ). In both settings, the recording took place with the couple's knowledge and written consent.

Prior to the conflict discussion, the partners were separately asked to select a problem or issue from a list of common topics of conflict in intimate relationships of which the source was either their partner or the relationship and which caused relationship distress or recurring disagreement. The issues (e.g., trust, intimacy, finances) were derived from previous work on sources of conflict within intimate relationships (Kurdek 1994). One of the conflict issues selected by the partners was then randomly chosen as the topic for the subsequent discussion. The partner who selected the issue introduced it to the other partner and the couple were asked to discuss it together for 11 min. Both partners were instructed to try to act as they would do when discussing a similar problem with each other at home.

## Relationship closeness

During the course of the observational session, partners' self-reported level of relationship closeness was assessed twice (once before and once after the conflict interaction task) using the Inclusion of the Other in the Self Scale (IOS; Aron et al. 1992). This scale consists of a single pictorial item in the form of Venn diagrams of which partners have to select the diagram that accurately represents their impression of relationship closeness at that moment in time.

## Mood

Similar to the IOS, partners' levels of personal well-being were also rated twice using the Self-Assessment Manikin (SAM; Bradley and Lang 1994). This pictorial three-item questionnaire measures three different components of a person's affective or emotional reaction (pleasure or mood, arousal, and dominance), yet, for the purpose of the current study, only the first item was used. Participants rated their mood on a nine-point Likert scale ranging from an unhappy, sad figure to a happy, smiling figure.

## Video-review task

**Dyadic interaction paradigm** Immediately after the post-interaction task both partners individually completed a video-review task similar to that used in other studies (e.g., Ickes et al. 1990; Verhofstadt et al. 2016). The partners were separated and asked to re-experience and re-live their interaction while they viewed a video of it on a laptop. The video presentation was controlled by an interactive software package (First author's citation) developed to facilitate the video-review task. Every 90 s, the video paused and the same set of instructions appeared on the screen. First, each partner was asked to (a) type the specific thoughts/feelings that he or she had at that point in the interaction into a blank box in an online questionnaire, (b) rate how obviously (i.e., how transparently) they believed their expression of these thoughts/feelings was in their behavior at the time, and (3) rate how threatening they perceived the content of their thoughts/feelings to be to *themselves*, *their partner*, and *their relationship*. Next, each member of the couple was asked to (a) infer the specific content of each of their partner's thoughts/feelings, and to type each inference into a blank box, (b) rate how obviously they believed their partner expressed each thought or feeling in his or her behavior at the time, and (3) rate how threatening each of their partner's inferred thoughts/feelings were to *themselves*, *their partner*, and *their relationship*. The ratings of transparency were recorded on a Likert scale that ranged from 0=*not at all obvious* to 4=*totally obvious*, and the ratings of perceived threat were recorded on a Likert scale that ranged from 0=*not threatening* to 7=*very threatening*. The instructions emphasized that the reported thoughts/feelings should be based on the 10-s segment of interaction that immediately preceded the pause in the video. The software gave participants the option to re-observe the 10-s of interaction that occurred before each pause.

**Standard stimulus task** Similar to the dyadic interaction paradigm, participants were asked to observe a video of an unknown couple engaging in a conflict-interaction (in which the stimulus couple had agreed to display their vide-

otaped conflict interaction). After confirming that they did not know or recognize the stimulus couple, each participant was asked to imagine experiencing the couple's interaction themselves, and to observe the partner of the opposite gender. Similar to the review task of the dyadic interaction paradigm, the video was paused at regular intervals and analogously, the participants were asked (a) to make inferences about the thoughts/feelings of the partner of the opposite gender, and (b) to score how obviously this partner had expressed these thoughts/feelings during the interaction on a five-point Likert scale.

## Empathic accuracy

Four independent judges rated the degree of similarity between the actual thought or feeling that each (stimulus/own) partner recorded and the content of the corresponding inferred thoughts or feelings that the other (stimulus/own) partner recorded. Following the recommendations of Ickes et al. (1990), the degree of similarity was rated in each case using a 3-point scale on which 0 = *different content from the actual thought or feeling*; 1 = *similar but not the same content as the actual thought or feeling*, and 2 = *essentially the same content as the actual thought or feeling*. Overall empathic accuracy scores were then computed as a simple percentage measure of the number of "accuracy points" earned divided by the total number of "accuracy points" available and multiplied by one hundred.<sup>3</sup> Generally, the empathic accuracy coding had acceptable reliability. For the dyadic interaction paradigm, ICC scores of  $EA_{\text{feelings}}$  were 0.70, and 0.74, and  $EA_{\text{thoughts}}$  were 0.67, and 0.67, both for men and women, respectively. In the standard stimulus task, ICC scores of  $EA_{\text{feelings}}$  were 0.83 and 0.75, and  $EA_{\text{thoughts}}$  were 0.67, and women 0.67, both for men and women respectively.

## Results

### Descriptive statistics

The sample-based means, standard deviations, ranges and paired sample *t* tests for all study variables are presented in Table 1. According to the paired sample *t* tests, men and women generally scored very similarly on the study variables. A few significant gender differences emerged. Partners seemed to differ in their empathic accuracy score for the standard stimulus task, as men seemed to reach higher levels of empathic

<sup>3</sup> The theoretical range of this percentage-correct accuracy measure was 0 (none of the possible accuracy points was earned) to 100 (all of the possible accuracy points were earned).

**Table 1** Descriptive statistics for the study variables

Variable	Males			Females			Difference		Paired sample <i>t</i> test
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	
Empathic accuracy DP for									
Feelings	21.29%	12.15	0.00–68.00	21.56%	12.23	0.00–52.00	–0.30	15.16	<i>t</i> (154)= –0.22, <i>p</i> = .83
Thoughts	20.33%	11.70	0.00–55.00	19.27%	11.66	0.00–48.00	1.06	13.85	<i>t</i> (154)= 0.95, <i>p</i> = .34
Empathic accuracy SS for									
Feelings	19.19%	11.54	2.00–50.00	15.70%	10.29	2.00–59.00	3.49	14.46	<i>t</i> (153)= 3.00, <i>p</i> < .05
Thoughts	17.12%	10.49	0.00–50.00	14.94%	7.87	0.00–41.00	2.18	11.70	<i>t</i> (153)= 2.31, <i>p</i> < .05
Perceived threat of feelings									
To the relationship	1.88	1.17	1.00–6.29	1.67	0.89	1.00–5.14	0.21	1.13	<i>t</i> (154)= 2.26, <i>p</i> < .05
To one’s self	2.01	1.11	1.00–5.43	1.96	1.04	1.00–5.43	0.05	1.26	<i>t</i> (154)= 0.51, <i>p</i> = .62
Perceived threat of thoughts									
To the relationship	1.91	1.14	1.00–5.57	1.67	0.90	1.00–4.57	0.24	1.16	<i>t</i> (154)= 2.53, <i>p</i> < .05
To one’s self	1.97	1.04	1.00–5.57	1.90	1.06	1.00–5.14	0.07	1.25	<i>t</i> (154)= 0.66, <i>p</i> = .51
Pre-discussion closeness	5.67	1.11	2.00–7.00	5.79	1.26	1.00–7.00	–0.11	1.21	<i>t</i> (153)= –1.07, <i>p</i> = .29
Post-discussion closeness	5.79	1.10	2.00–7.00	5.75	1.20	1.00–7.00	0.03	1.12	<i>t</i> (151)= 0.36, <i>p</i> = .72
Pre-discussion mood	7.20	1.14	1.00–9.00	7.03	1.22	3.00–9.00	0.18	1.74	<i>t</i> (153)= 1.25, <i>p</i> = .21
Post-discussion mood	6.99	1.37	1.00–9.00	7.01	1.51	1.00–9.00	–0.01	2.11	<i>t</i> (148)= –0.80, <i>p</i> = .94
Commitment	51.82	6.04	24.00–56.00	52.53	5.06	24.00–56.00	–0.71	7.15	<i>t</i> (152)= –1.22, <i>p</i> = .22
Sense of self	23.68	6.08	12.00–40.00	25.48	6.27	14.00–44.00	–1.81	8.19	<i>t</i> (150)= –2.71, <i>p</i> < .05

Perceived threat of thoughts/feelings as rated by the target (= men’s score is threat rated by the female partner and vice versa)

**Table 2** Results of the multilevel model analyzing variability on the within-person and between-couple level

	Empathic accuracy		Threat			
	Feelings	Thoughts	Relationship		Self	
			Feelings	Thoughts	Feelings	Thoughts
$\sigma^2_M$	0.32	0.2	0.91	0.95	1.32	1.23
$\sigma^2_V$	0.32	0.27	0.87	0.96	1.25	1.13
$\rho\sigma_M\sigma_V$	0.07	0.08	–0.31	–0.33	–0.30	–0.31
$\tau_M$	0.01	0.02	0.79	0.82	0.74	0.76
$\tau_V$	0.01	0.02	0.79	0.70	0.80	0.74
$\rho\tau_M\tau_V$	0.90	0.74	0.96	0.97	0.97	0.95

$\sigma$  denotes variability due to within-person repeated measures;  $\tau$  denotes variability due to between-couple variability

accuracy both for thoughts/feelings. Furthermore, partners differed on the measures of perceived threat for the relationship, both in response to the partner’s feelings and thoughts, with men seeming to experience more potential threat from the thoughts/feelings of his female partner, reflected in higher mean scores. Additionally, men and women also seemed to differ in their scores on the sense of self scale as women scored slightly higher, indicating a weaker sense of self.

**Test of the research hypotheses**

**Manageability**

We analyzed the data using a Multilevel model for dyadic data with repeated measures (i.e., data collected at seven time points during video-review) that treats the three levels of distinguishable dyadic data (time points nested within



**Table 3** Results of the comparison between the expected levels of empathic accuracy during the dyadic interaction paradigm and the observed levels of empathic accuracy during the standard stimulus paradigm

	Men			Women		
	$M_{DP}$	$M_{SS}$ [95% CI]	$t$	$M_{DP}$	$M_{SS}$ [95% CI]	$t$
EA for feelings						
Min. threat	22.67	19.19 [17.35–21.03]	– 3.74*	32.25	15.70 [14.06–17.34]	– 19.96*
Max. threat	24.58		– 5.79*	25.20		– 11.82*
EA for thoughts						
Min. threat	25.18	17.11 [15.44–18.79]	– 9.54*	23.05	14.94 [13.68–16.19]	– 12.81*
Max. threat	28.92		– 13.96*	22.58		– 12.06*

\* $p < .05$ ; Min. threat = thoughts/feelings rated as least threatening on both scales; Max. threat = thoughts/feelings rated as most threatening on both scales

persons nested within couples) as two levels of random variation. The lower level represents variability due to within-person repeated measures for male and female partners separately, and the upper level represents between-person variability across male and female partners.

Table 2 shows that there is hardly any between-person variability in empathic accuracy for thoughts and feelings. But, there is a high degree of within-person variability for empathic accuracy suggesting that partners’ level of empathic accuracy is not fixed, but indeed manageable (*HI*). However, these variability scores do not inform us about what accounts for this variability in partners’ empathic accuracy scores. Furthermore, it is noticeable that partners seem to have very similar overall levels of empathic accuracy, but their within-moment correlation is rather small.

**Perceived threat**

When taking a closer look to the variability of the hypothesized predictor of perceived threat, Table 2 shows that the between-person variability is a bit smaller than the within-person variability for threat. Remarkable is that partners’ within-moment correlation is negative for threat, indicating that within a couple, partners’ level of threat—as experienced at the same moment during the interaction—is negatively correlated. Regarding our second hypothesis, our model did not find a significant association between empathic accuracy and threat. This null-finding suggests that the variability in a partner’s empathic accuracy score for thoughts/feelings is not due to any form of perceived threat.

The same conclusion could be drawn from the analyses regarding the comparison between empathic accuracy during the DI-paradigm (for the participant’s own partner) and the SS-paradigm (for the unknown target). Our hypotheses were tested by the means of one-sample *t* tests that allowed us to control for the readability of the targets. For each individual, four scores of empathic accuracy were taken into account. The empathic accuracy score(s) for thoughts/feelings on the time point(s) rated by the target as least threatening during the interaction (i.e., those that involved empathic accuracy

for not-threatening thoughts/feelings) and the empathic accuracy score(s) on the most threatening time point(s) during the interaction (i.e., those that involved empathic accuracy for threatening thoughts/feelings) were selected for the analyses. Prior to each *t*-test, a simple linear regression was fit to the data with each participant’s level of empathic accuracy at the least/most threatening time point as the dependent variable, and their partner’s readability as the independent variable. Next, the estimated regression coefficients ( $b_0$  and  $b_1$ ) were used to predict the estimated mean ( $M_{pred}$ ) and compute a value of the independent variable when their partner’s readability score would be equal to that of the stimulus partner, that is,  $M_{pred} = b_0 + b_1[\text{readability target SS}]$ . We then compared, using a one-sample *t*-test, whether the sample mean of partners’ levels of empathic accuracy during the SS-paradigm significantly differed from the estimated mean ( $M_{pred}$ ). Table 2 shows the results of the *t*-tests comparing each perceiver’s expected mean level of empathic accuracy in the DI-paradigm when the readability of their own partner was equal to the readability of the stimulus partner and the same perceiver’s level of empathic accuracy in the SS-paradigm. These comparisons were conducted twice, once for each perceiver’s level of empathic accuracy for their own/the unknown partner’s non-threatening thoughts/feelings and once for the perceiver’s level of empathic accuracy for their own/the unknown partner’s most threatening thoughts/feelings.

As predicted, perceivers’ expected mean levels of empathic accuracy for their own partner’s non-threatening thoughts/feelings was higher than those for the unknown partner’s non-threatening thoughts/feelings (*H2a*; see Table 3). The second part of the hypothesis predicted that perceivers’ levels of empathic accuracy for the partner’s threatening thoughts/feelings would be lower than the perceivers’ levels of empathic accuracy for the partner’s non-threatening thoughts/feelings. Paired *t*-tests indeed found our hypothesis to be disconfirmed (*H3b*) as no significant differences were found either between women’s empathic accuracy for their male partner’s non-threatening thoughts versus threatening thoughts,  $t(154) = 0.88, p = .38$ , or for

**Table 4** Results of the structural equations predicting changes in perceived closeness and changes in mood from empathic accuracy for feelings and thoughts at different levels of perceived relationship- or personal threat

	$\Delta$ Closeness				$\Delta$ Mood				
	Men		Women		Men		Women		
	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	
EA for feelings...									
Min. relationship-threat	0.35*	0.17	0.20	0.25	-0.13	0.33	0.79*	0.34	
Max. relationship-threat	0.01	0.15	0.24	0.23	-0.27	0.27	-0.05	0.32	
Min. self-threat	0.28	0.17	-0.03	0.23	-0.10	0.32	1.00*	0.32	
Max. self-threat	-0.40*	0.14	-0.08	0.19	-0.23	0.26	-0.10	0.27	
EA for thoughts...									
Min. relationship-threat	0.00	0.16	-0.13	0.28	-0.32	0.31	-0.16	0.40	
Max. relationship-threat	-0.23	0.13	0.08	0.23	-0.15	0.25	-0.08	0.33	
Min. self-threat	0.04	0.19	-0.32	0.23	-0.03	0.37	-0.19	0.33	
Max. self-threat	-0.19	0.12	0.06	0.20	-0.27	0.24	0.02	0.29	

\* $p < .05$ ;  $N = 155$ ; Min. relationship-threat = thoughts/feelings rated as least threatening for the relationship; Max. relationship-threat = thoughts/feelings rated as most threatening for the relationship; Min. self-threat = thoughts/feelings rated as least threatening for the perceiver's self; Max. self-threat = thoughts/feelings rated as least threatening for the perceiver's self

empathic accuracy for their male partner's non-threatening feelings versus threatening feelings,  $t(154) = 1.15$ ,  $p = .25$ , were found. Similarly, no significant differences were found between men's empathic accuracy for their female partner's non-threatening thoughts versus threatening thoughts,  $t(154) = -1.16$ ,  $p = .25$ , or for empathic accuracy for their female partner's non-threatening feelings versus threatening feelings,  $t(153) = 0.72$ ,  $p = .47$ . Perceivers' levels of empathic accuracy for their own partner always remained higher than their baseline level of empathic accuracy (i.e., empathic accuracy for the unknown target), both for non-threatening and threatening thoughts/feelings.

### Empathic accuracy and situational well-being

Despite the non-significant association between empathic accuracy and perceived threat, the latter could still moderate the association between accuracy and situational well-being. However, multi-level modeling could not be used to test these hypotheses as we only measured pre- to post-interaction differences of situational well-being instead of repeated measurements at each time point during the interaction. Therefore, the effects of empathic accuracy on the outcome variables were tested for the least threatening thoughts/feelings and for the most threatening thoughts/feelings. This strategy enabled us to test our hypotheses twice, once in the complete sample of the current data-set and once in a subsample. The latter made it possible to test the robustness of our findings as the subsample excluded couples where the partners reported no variation in their perceived threat ratings. The rationale for the latter subset analysis is the maximization of the use of the variance of the perceived threat ratings, which is important given that this variation

was often limited. To assess the effect of empathic accuracy on short-term well-being, path analysis models in the Structural Equation Modeling (SEM) framework, using the package lavaan in R, were fitted for men and women simultaneously thereby allowing for correlations in the outcomes between partners to be detected. This allowed us to explore whether empathic accuracy at low or high levels of threat, calculated as explained above, was associated with well-being in men and women.

Table 4<sup>4</sup> reports results concerning the second and third hypothesis. The first part of the third hypothesis (*H3a*) was partially confirmed for men, as a positive effect on their level of relationship closeness was found for empathic accuracy for the feelings they detected in their female partners rated as not threatening to their relationship. This effect was also significant for the subsample of participants selected from our dataset, demonstrating the robustness of this effect,  $\beta = 0.55$ ,  $p < .05$ ,  $n = 77$ . However, this was not found for empathic accuracy for non-threatening thoughts. The second part of the hypothesis (*H3b*) was partially confirmed for women, as a positive effect on their self-reported mood was found for empathic accuracy for feelings that they had detected in their male partners and rated as not threatening. The robustness of this effect was demonstrated, as this association was also significant in the sample subset,  $\beta = 0.96$ ,  $p < .01$ ,  $n = 98$ . As with the men, this effect was not found for empathic accuracy for non-threatening thoughts. Although not predicted, another interesting finding emerged, as for women the results indicated

<sup>4</sup> All models fitted well (all CFI > 0.95, all RMSEA < 0.05 and all SRMR < 0.08), as well as the moderation models presented in the following section.

a positive effect of empathic accuracy for feelings detected in their male partners and rated as not threatening to their relationships on their self-reported mood.

Regarding the fourth hypothesis, no significant findings confirming our hypotheses were found, i.e., there was no further detectable negative impact of empathic accuracy for thoughts/feelings rated as relationship- or self-threatening on closeness or mood (*H4a&b*). Again, an effect that was not predicted was found for men, in that men's empathic accuracy for feelings that they detected in their female partners and rated as being threatening to themselves was negatively associated with their self-reported levels of relationship closeness.

### Moderating variables

To test our final hypothesis, the analyses concerning hypotheses 3 and 4 were conducted again, but now either including the perceiver's level of commitment or the perceiver's sense of self as moderator.

**Commitment** The first set of analyses included the perceiver's level of empathic accuracy for the least threatening thoughts/feelings and for the most threatening thoughts/feelings, the perceiver's level of commitment, and their interaction term as the independent variables, and their relationship closeness or mood as the dependent variable. No significant results emerged from this set of analyses, suggesting that the level of commitment is not a moderator of the association between empathic accuracy and perceived threat on changes in relationship closeness or mood (*H5a*).

**Sense of self** The second set of analyses was similar, but now included the perceiver's self-reported sense of self score. Two models that were previously not significant, now reached significance due to the significant two-way interactions once sense of self was included as a moderator (*H5b*). A first significant finding indicated a positive effect of men's empathic accuracy for women's feelings, rated as not threatening for the self, on relationship closeness that is moderated by men's self-reported sense of self score, with the positive effect being smaller for men with a weaker sense of self,  $\beta = -0.06$ ,  $p < .05$ . A second significant finding indicated a negative effect of men's empathic accuracy for women's feelings, rated as threatening for the self, on men's mood that is moderated by men's self-reported sense of self score, with the negative effect being, surprisingly, smaller for men with a weaker sense of self,  $\beta = 0.12$ ,  $p < .01$ .

## Discussion

The general aim of the current study was to examine the three principal questions concerning empathic accuracy in intimate relationships that form the basis for the core assumptions of the empathic accuracy model developed by Ickes and Simpson (1997). Although previous empathic accuracy research has offered some indications directly or indirectly supporting these assumptions, no published research has explicitly tested them. Because the model provides an important theoretical framework to gain further insight into the complex field of actual understanding, empirical research is essential to verify the model and to deduce valuable advice for clinical practice. The current study investigated each assumption separately, first of all by comparing perceivers' levels of empathic accuracy for their own partners and an unknown partner for different levels of threat, and testing the manageability of accuracy based on the assumption of underlying accuracy versus esteem-regulatory motives. Secondly, the impact of both relationship-threat and self-threat on the associations between empathic accuracy and short-term relationship and personal well-being were tested by means of an advanced statistical analysis strategy and finally, the potential moderation effects of commitment and sense of self were investigated.

In the sections that follow, the results and their implications for the empathic accuracy model are discussed, and some future directions are suggested, taking into account the limitations of the current study.

### Manageability and perceived threat

As a first step, the assumption concerning the manageability of empathic accuracy was examined. We reasoned that if this assumption is a valid one, then a partner's level of empathic accuracy would vary within the boundaries of his or her ability. The second step investigated the assumption that a shift from an accuracy motive to an esteem-regulatory motive might be triggered by perceived threat and that this shift accounts for the variation in each individual's accuracy level. Here, we reasoned that if this assumption is valid, then partner's level of empathic accuracy should be negatively associated with their self-reported levels of perceived threat to both their relationship and themselves. The first hypothesis was confirmed as the variability scores indeed suggested that a partner's empathic accuracy scores fluctuated during the interaction.

The first part of the second hypothesis derived from these assumptions was confirmed, as perceivers showed higher levels of empathic accuracy for their partner's

non-threatening thoughts/feelings in comparison to their empathic accuracy for the thoughts/feelings of an unknown target. This could be due to the effect of the accuracy-motive, which stimulates empathic accuracy as a means of reaching accurate inferences of the partner's thoughts/feelings. However, the assumption that underlying motives, more specifically perceived threat, is able to stimulate (dial up) or downgrade (dial down) the level of empathic accuracy was not confirmed as there was no significant association between both variables. Additionally, each perceiver's level of empathic accuracy for non-threatening thoughts/feelings was compared with their level of accuracy for threatening thoughts/feelings. And as expected, the prediction that the latter should be lower than the former, was not confirmed. Women's levels of empathic accuracy showed a tendency in the predicted direction, but surprisingly, men's levels of accuracy indicated a tendency in the opposite direction, as their empathic accuracy levels for their female partner's threatening thoughts/feelings were higher than for not threatening thoughts/feelings. It should be noted, however, that none of the observed increases or decreases in the empathic accuracy level reached statistical significance.

Furthermore, the results showed that the perceiver's level of empathic accuracy for their own partner was higher than their level of empathic accuracy for the unknown target regardless of the level of threat. These results suggest that familiarity with the partner is a stronger predictor of accuracy than the potential impact of threat. Nonetheless, an important consideration regarding these findings is that the level of threat remained rather low in the interactions involved in this study; consequently, the underlying esteem-regulatory motive might not have been fully triggered.

### Empathic accuracy and situational well-being

In the third step, we investigated the role of perceived threat as a moderator of the association between empathic accuracy and partners' situational well-being. Here, we reasoned that the presence or absence of higher levels of perceived threat in a participant's partner's thoughts/feelings would determine whether empathic accuracy is desirable or beneficial for short-term relationship well-being (e.g., the relationship is perceived as stable, closeness increases) or if empathic accuracy might be harmful for short-term relationship well-being (e.g., as relationship distress and instability increases, closeness decreases). The second hypothesis tested the assumption that empathic accuracy for thoughts/feeling rated as not threatening to the relationship on the one hand, or not threatening to the perceiver's self on the other, would lead to an increase in relationship closeness or improved mood, respectively. Partial evidence was found for this hypothesis as higher levels of men's empathic accuracy for their female

partner's feelings rated as not threatening to the relationship were associated with an increase in the men's perceived relationship closeness. In the same vein, higher levels of women's empathic accuracy for their male partner's feelings rated as not threatening to themselves were associated with an improvement in their self-reported mood. Another finding that we had not predicted also confirmed the same logic, in that higher levels of women's empathic accuracy for feelings detected in their male partners that were not relationship-threatening were associated with an improvement in the women's self-reported mood.

In conclusion, the results seem to indicate that, in the context of conflict interactions, higher levels of empathic accuracy for non-threatening feelings—either for the relationship or the self—are associated with a higher level of perceived closeness for men and an improvement in women's mood.

In contrast with the results concerning the association between empathic accuracy in non-threatening situations and short-term well-being, the results did not confirm our hypothesis predicting a harmful effect of empathic accuracy for threatening thoughts/feelings on relationship well-being. Furthermore, in a result that we had not predicted, men who were more empathically accurate for feelings of their female partners that threatened themselves reported a decline in their perceived relationship closeness. These findings are only partially consistent with the results from a previous study (Simpson et al. 2003) that indicated that higher levels empathic accuracy for relationship-threatening thoughts/feelings rated by both partners and trained observers were associated with a decline in perceivers' feelings of relationship closeness.

The consideration mentioned above also applies to the current results, as the level of self-reported threat remained rather low in the conflict interactions observed in this study. The absolute level of threat might have been rather moderate, and even though the thoughts/feelings were labeled as the 'most' threatening ones compared to the other thoughts/feelings during that interaction, empathic accuracy might not have been perceived as being harmful for the situational well-being of the interacting partners who participated.

The differentiation between empathic accuracy for thoughts/feelings may provide another explanation for our results, as previous research has not included this division. Although the empathic accuracy scores for thoughts/feelings are quite similar, there appeared to be a slight difference in the accuracy scores in favor of feelings. The varying difficulty between inferring thoughts versus feelings could explain why we found an association between perceived threat and empathic accuracy for feelings but not for thoughts. Several reasons supporting this explanation can be noted, namely (1) the *number* of thoughts is endless whereas the *number* of feelings is limited, (2) the flow of thoughts is also *continuously changing*, whereas feelings might reflect

a more generalized emotional state and might even represent a general feeling of relationship (dis)satisfaction (i.e., sentiment override theory; Verhofstadt et al. 2005; Weiss 1980), (3) thoughts are mainly inferred from *verbal cues*—which might be totally unrelated to the target’s thoughts—whereas feelings can be inferred from a lot of *non-verbal cues* (e.g., facial expression, intonation, body language), (4) thoughts are characterized by a *greater linguistic complexity* (e.g., a broader range of words, more functional words and verbs, more discrepancy and tentative words; Ickes and Cheng 2011) than feelings, (5) inferring the *valence* of thoughts is ambiguous and sometimes artificial, as thoughts are frequently rated as neutral, whereas inferring the valence of feelings is more straight-forward, and (6) empathic accuracy for feelings *benefits from training* in contrast to empathic accuracy for thoughts (Barone et al. 2005).

In summary, the impact of accurately inferring a partner’s feelings might be more obvious as feelings are limited, less complex and more straight-forward in their threat-potential whereas the impact of accurately inferring thoughts—which are more complex, ambiguous and often neutral—might be harder to detect on a short-term basis. Hence, a different underlying association between perceived threat and empathic accuracy for feelings on the one hand, and empathic accuracy for thoughts on the other might have been disclosed.

### Moderating variables

Another possibility for why we did not find an association between empathic accuracy for thoughts and perceived threat could be found in the fact that perceivers’ levels of commitment and strength of self were not included in the analyses. The negative association between empathic accuracy for relationship-threatening thoughts and relationship closeness for perceivers highly committed to their relationship might be masked by data from perceivers who did not experience a decline in relationship closeness because they are less committed to their relationship. These less committed perceivers might not experience such a decline as their initial level of closeness might have been lower compared to the initial level of closeness rated by highly committed perceivers—additional analyses did confirm this explanation as lower commitment was indeed associated with lower initial ratings of closeness—and therefore the post-interaction closeness ratings of low commitment perceivers could not drop any further (i.e., there was a floor effect). Alternatively, as these perceivers seem to not be so committed, relationship-threat might not significantly impact upon their relationship closeness, as they simply care less about their relationship. However, these possible explanations seem unlikely, as no significant results were found and our

hypotheses including commitment as a potential moderator could not be confirmed.

The same line of reasoning also applies for a perceiver’s sense of self as this may moderate the association between empathic accuracy for self-threatening thoughts and personal well-being. Again, the negative association between empathic accuracy for self-threatening thoughts on the mood of perceivers with a weak sense of self might be hidden by data from perceivers with a strong sense of self who did not experience a drop in their mood. Perceivers with a strong sense of identity might not experience accurately inferring self-threatening thoughts as destabilizing to their personal well-being. Conversely, perceivers with a weaker sense of self might experience feelings of insecurity after accurately inferring self-threatening content from their partner’s thoughts. Although we did not offer predictions on the direction of the moderations, the results were surprising with regard to male perceiver’s strength of identity on well-being, as they showed an opposite pattern than that has been previously reasoned. The first significant model indicated that the increase of relationship closeness for male perceivers who had accurately inferred their female partner’s non-self-threatening feelings was attenuated for perceivers with a weaker sense of self; the second significant model indicated that the worsening of a male perceiver’s mood after accurately inferring their female partner’s self-threatening feelings was also attenuated for perceivers with a weaker sense of self. These results suggest that our earlier reasoning should be inverted, so that accurately inferring thoughts/feelings that threaten the well-defined view of a perceiver with a strong sense of self might actually be very confusing and consequently destabilize the perceiver’s short-term well-being. A perceiver might interpret this as indicating that their partner is disapproving or even rejecting their identity. This destabilizing effect might not occur for perceivers with a weaker sense of self as they already perceive their identity as inconsistent or uncertain.

However, as these explanations are all very speculative, future research investigating these ambiguous findings should be conducted. This leads us to some final limitations and directions for future research.

### Limitations and strengths

Despite the strengths of our multi-method design and statistical approach some limitations and suggestions for improvement should be noted. First of all, the low scores on the measures of perceived threat showed limited levels of variance that possibly reduced the power to detect predicted effects. The same limitation applies for our measure of commitment. Secondly, our sample consisted of white, middle-class and non-clinical couples who were generally satisfied with their relationships, as is reflected in their moderate to

high levels of commitment. Future research would benefit from using a more heterogeneous sample including couples ranging from distressed to very satisfied about their current relationship. Finally, the assumptions concerning the manageability of empathic accuracy due to underlying ‘motives’ might create the impression that perceivers consciously monitor and regulate their levels of accuracy. However, it is rather unlikely that perceivers are consciously managing this process while considering the potential impact of potential threat. Future research should address this issue by using an experimental design that effectively manipulates the perceiver’s accuracy motive versus their esteem-regulatory motive in order to unravel the influence of underlying motivational mechanisms on the empathic accuracy process and situational outcomes.

## Conclusion

The current findings provide some suggestions to answer the three principal questions of this study. These questions were deduced from the basis for the empathic accuracy model developed by Ickes and Simpsons, and in turn, this model was used as the basis for our hypotheses. First of all, evidence for the manageability of empathic accuracy had been found in previous research, demonstrating some motivational factors underlying empathic accuracy. Partners’ levels of perceived threat during interactions could be considered as the factor that determines the activation of an accuracy-motive (fostering higher levels of empathic accuracy) or an esteem-regulatory motive (discouraging empathic accuracy). In the current study, some evidence was found for the accuracy-motive, as partners showed higher levels of accuracy for their own partner than for an unknown interaction partner. However, no evidence was found for the esteem-regulatory motive as the results did not show a drop in partners’ accuracy levels for threatening thoughts/feelings. As no hard evidence was found for an influencing effect of perceived threat on the level of empathic accuracy, our second question remains unanswered at this stage. Thirdly, we did find some evidence for a role of perceived threat as a moderator between empathic accuracy and situational well-being, as higher levels of empathic accuracy for non-threatening feelings were predictive of a pre-to-post-test increase in perceived closeness for men and improved mood in women. However, no evidence for a harmful effect of empathic accuracy for threatening thoughts/feelings on situational well-being was found. These findings suggest that the role of empathic accuracy is complex during couples’ conflict, and point to the important role of perceived threat, however, future research is needed to further elucidate the precise interplay of this and other possible moderators on

the association between understanding and (post-interaction) well-being.

**Funding** This study was funded by Research Foundation - Flanders, Grant Number: 11Q9516N (first author).

## Compliance with ethical standards

**Conflict of interest** All authors declare that he/she has no conflict of interest.

**Ethical approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed consent** Informed consent (written) was obtained from all individual participants included in the study.

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