

# Perceiving regulation from intimate partners: Reflected appraisal and self-regulation processes in close relationships

NICKOLA C. OVERALL<sup>a</sup> AND GARTH J. O. FLETCHER<sup>b</sup>

<sup>a</sup>University of Auckland, New Zealand and <sup>b</sup>University of Canterbury, New Zealand

## Abstract

Cross-sectional ( $N = 202$ ) and longitudinal analyses over a 6-month period ( $N = 155$ ) assessed the consequences of perceiving regulation attempts from romantic partners. Greater perceived regulation from the partner was associated with more negative inferences regarding how closely individuals matched their partner's ideal standards in the targeted domain (inferred ideal consistency). Lower inferred ideal consistency, in turn, was associated with poorer relationship evaluations and predicted more negative perceptions of targeted self-attributes. Individuals also directly responded to their partner's regulation efforts with attempts to change targeted features. Finally, perceiving more negative regulation strategies produced lower inferred ideal consistency, relationship evaluations, and self-regulation efforts, whereas perceiving more positive strategies predicted greater inferred ideal consistency across time. The operation of reflected appraisal and self-regulation processes within romantic relationships is discussed.

How people believe they are evaluated by their partners (often called *reflected appraisals*) plays a pivotal role in the functioning of intimate relationships (Murray, Holmes, & Collins, 2006; Reis, Clark, & Holmes, 2004). Individuals who think they live up to their partner's ideals, for example, report high relationship satisfaction (Campbell, Simpson, Kashy, & Fletcher, 2001), trust in their partner's continued regard, and constructively cope with relationship difficulties by trying to restore closeness (Murray, Bellavia, Rose, & Griffin, 2003). In contrast, individuals who possess negative perceptions of their partner's regard not only experience poor

relationship quality but also protect themselves from expected rejection by devaluing and withdrawing from their partner (Murray et al., 2003).

Reflected appraisals seem to be determined, in part, by the beliefs and expectations people bring with them into relationships. Individuals with low self-esteem, for example, are generally pessimistic about the likelihood that others will accept and value the self (Leary & Baumeister, 2000) and underestimate the positive regard of their romantic partners (Murray, Holmes, Griffin, Bellavia, & Rose, 2001). However, reflected appraisals are also a function of the partner's behaviors. If partners are perceived to respond in an accommodative and forgiving fashion to poor behavior, this tends to build trust and investment (Wieselquist, Rusbult, Foster, & Agnew, 1999), and if partners are perceived to disclose more in a positive fashion during daily interactions, this increases perceived regard and acceptance (Laurenceau, Feldman Barrett, & Pietromonaco, 1998).

Unfortunately, partners also engage in behavior that communicates dissatisfaction and low regard. For example, Overall, Fletcher,

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Nickola C. Overall, Department of Psychology, University of Auckland, New Zealand; Garth J. O. Fletcher, Department of Psychology, University of Canterbury, New Zealand.

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Correspondence should be addressed to Nickola Overall, Department of Psychology, University of Auckland, Private Bag 92019, Auckland, New Zealand, e-mail: n.overall@auckland.ac.nz.

and Simpson (2006) discovered that intimates often attempt to change aspects of their partner that do not match their own ideal standards—a process they called *partner regulation*. Ironically, however, results of Overall and colleagues suggested that partner regulation tends to backfire; the harder people try to change their partners, the unhappier they and their partners become with their relationship. The authors' explanation was that partner regulation—especially of central traits such as sensitivity or attractiveness—communicates lack of acceptance and negative regard to the targeted partner. This study builds on these preliminary findings by investigating in more detail the reflected appraisal processes involved and the different consequences that perceiving regulation from the partner has for self-evaluations and behavior.

*Ideal standards, partner regulation, and reflected appraisals*

In this study we assessed three categories of judgments that are central to evaluations of the self and the partner in long-term intimate relationship contexts: warmth and trustworthiness, attractiveness and vitality, and status and resources. From an evolutionary perspective, these characteristics are related to two main mating criteria that enhance reproductive fitness in humans—mate investment (warmth and status) and good genes (attractiveness; Gangestad & Simpson, 2000; Simpson, Fletcher, & Campbell, 2001). Indeed, there is considerable evidence that, across many cultures, both men and women focus on these particular categories of traits when looking for long-term mates (Buss, 1999; Fletcher, 2002), and factor analytic studies reveal that most partner-evaluation items fall into these three categories (Fletcher, Simpson, Thomas, & Giles, 1999).

We measured reflected appraisals by assessing the extent to which individuals believe that they live up to their partner's standards along these three dimensions. This decision was based on a key proposition drawn from independence theory (Kelley & Thibaut, 1978), Self-discrepancy theory (Higgins, 1987), and the ideal standards model

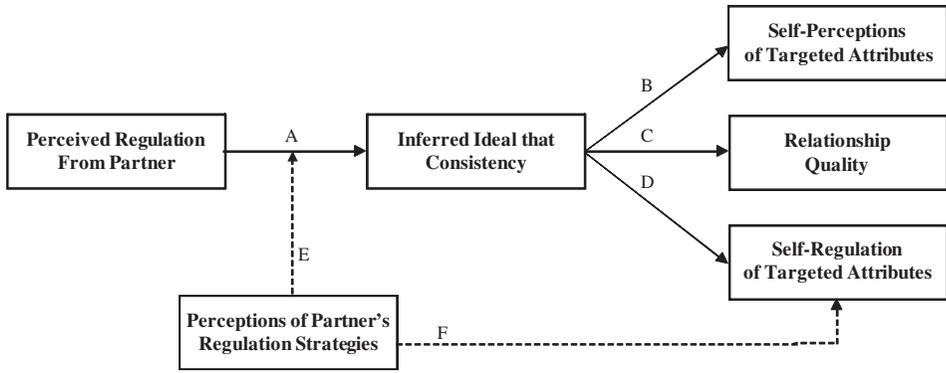
(Fletcher et al., 1999); that is, evaluations within relationship contexts are driven by comparisons between perceptions and expectations or standards (see Simpson et al., 2001, for a review). Research evidence supports this claim. Lower consistency between perceptions of the partner and ideal standards is associated with more negative partner and relationship evaluations and also motivates greater attempts to change (i.e., regulate) the partner on specific dimensions (Campbell et al., 2001; Fletcher et al., 1999; Fletcher, Simpson, & Thomas, 2000a). In addition, Overall and colleagues (2006) found that intimates who believed they were more frequently the target of their partner's regulation inferred they did not live up to their partners' standards and also evaluated their relationships more negatively. Thus, if Mary tries to enhance John's ability to communicate more sensitively, such efforts are likely to be noticed by John and it will dawn on him that he does not conform very closely to Mary's expectations.

*The consequences of perceiving regulation attempts from the partner*

Building on the preliminary cross-sectional findings of Overall and colleagues (2006), this research was designed to (a) replicate and assess longitudinally the links between perceiving regulation attempts from the partner and the degree to which targeted intimates believe they match their partner's ideal standards (a specific class of reflected appraisals we term *inferred ideal consistency*), (b) model and test how feeling less regarded by the partner along important relationship-relevant dimensions leads to three distinct outcomes for the targeted self, and (c) examine the extent to which positive versus negative styles of regulation perceived from the partner moderate the negative impact of partner regulation. Our main aims and predictions are outlined in Figure 1.

*Path A: Perceived regulation from partner and inferred ideal consistency*

Path A (see Figure 1) postulates that one central outcome of perceiving regulation from the



**Figure 1.** Outcomes associated with perceiving regulation attempts from the partner.

partner will be a reduction in inferred ideal consistency (i.e., the degree to which the individual perceives that he or she meets one’s partner’s ideal standards). We tested whether (a) Path A occurs over and above individuals’ global self-esteem and self-evaluations of specific qualities that may bias perceptions of partner’s regard and behavior (Murray et al., 2001; Murray et al., 2006) and (b) whether regulation from the partner lowers inferred ideal consistency across time.

*Path B: Perceived regulation from partner, inferred ideal consistency, and self-perceptions*

Although the primary focus of prior research has been on the role of self-perceptions determining perceived regard, the way individuals infer they are evaluated by their partners should also feed back into their own self-evaluations. Path B depicts the standard reflected appraisal process proposed by symbolic interaction theory (Cooley, 1902; Mead, 1934). First, how the self responded during social interactions should reflect how others appraise the self (Path A). Second, these reflected appraisals should shape the self-concept as individuals incorporate their evaluation of others’ appraisals into their own self-perceptions (Path B). This process should be particularly powerful in long-term central relationships, such as romantic relationships.

Previous research testing the reflected appraisal process has compared the individual’s reflected appraisals with the actual judgments

of others. This body of work suggests that (a) self-perceptions are strongly associated with judgments of reflected appraisals and (b) people reveal minimal accuracy when discerning how specific others evaluate the self, although accuracy might increase with relational intimacy (Cook & Douglas, 1998; Kenny & DePaulo, 1993; Levesque, 1997). Nevertheless, this research has not examined how others’ regard is reflected or communicated to the self (Path A) or how reflected appraisals (accurate or otherwise) are incorporated into self-evaluations; to do so requires an examination of how reflected appraisals influence self-perceptions over time (Felson, 1989). For example, Murray, Holmes, and Griffin (2000) found that, above and beyond partner’s actual regard, inferring that the partner held more negative views of the self reduced individual’s overall sense of self-worth over the following year. However, Murray and colleagues did not examine how the partner’s behavior contributes to the generation of reflected appraisals.

Thus, this study goes beyond prior research in several important ways. First, we tested a mediational model mapping the reflected appraisal process: Greater regulation perceived from the partner is associated with reduced inferred ideal consistency (Path A), which, in turn, produces more negative self-perceptions of targeted qualities (Path B). Second, we examined these effects across three central relationship-relevant attributes—warmth/trustworthiness, attractiveness/vitality, and status/resources. Third, we tested these

effects across time by assessing all variables across a 6-month period. Examining these processes longitudinally is crucial to determine whether perceptions of partner's regard are incorporated into self-evaluations. Consistent with prior research, we expected that self-perceptions would influence levels of inferred ideal consistency. However, we also predicted that inferences regarding how individuals matched their partner's ideal standards would alter self-perceptions over time. And we expected that this effect would hold up when controlling for global self and relationship evaluations.

*Path C: Perceived regulation from partner, inferred ideal consistency, and relationship quality*

The major outcome in prior research tied to perceptions of the partner's regard has been relationship satisfaction. More negative inferences regarding how the partner evaluates interpersonal self-attributes is associated with poorer relationship satisfaction concurrently and longitudinally (Murray et al., 2000; Murray et al., 2001; Murray et al., 2006), and lower inferred ideal consistency across all three ideal dimensions is also linked with more negative relationship evaluations (Campbell et al., 2001; Overall et al., 2006). Thus, independent of the impact of inferred ideal consistency on self-perceptions, we predicted that perceiving regulation from the partner would reduce inferred ideal consistency (Path A), which, in turn, would lower relationship satisfaction across time (Path C). As before, we tested these paths both concurrently and longitudinally and controlled for a variety of potential artifacts, including global self-esteem and self-evaluations of specific qualities.

*Path D: Perceived regulation from partner, inferred ideal consistency, and self-regulation*

The final outcome we examined consisted of the self-regulation of targeted attributes (see Path D, Figure 1). Overall and colleagues (2006) found that experiencing more regulation from the partner was concurrently

associated with greater attempts to change self-attributes within the targeted domain. However, Overall and colleagues did not explore the links between self-regulation and inferred ideal consistency or test these associations across time. Prior self-regulation theory and associated research suggest that self-regulation is motivated by perceived discrepancies between self-perceptions and the goals, wishes, and standards of significant others (Higgins, 1987; Moretti & Higgins, 1999). Experimental studies have also provided good evidence that individuals are implicitly motivated to achieve the goals of close others, such as parents and close friends (Shah, 2003). Romantic partners are likely to have powerful self-regulatory significance but related hypotheses have not been previously investigated. We predicted that individuals who more strongly inferred that they failed to meet the expectations held by their partner (as revealed by their partner's regulation attempts; Path A) would be more motivated to improve discrepancy-related attributes to boost their partner's regard (Path D). Moreover, these effects should occur above and beyond individuals' self-regulation attempts arising from their own judgments of where they stand on each dimension and, thus, should be evident when controlling for self-perceptions of the targeted domain.

*Paths E and F: The moderating role of partner's regulation strategies*

Finally, we explored whether the kind of regulation strategies partners were perceived to use moderated the extent to which regulation from the partner reduced inferred ideal consistency and relationship quality (see Path E, Figure 1) and motivated self-regulation efforts (see Path F, Figure 1). A vast body of research investigating communication within problem-solving interactions has shown that engaging in hostile, critical, or demanding behavior leads to lower relationship satisfaction over time (see Karney & Bradbury, 1995, for a meta-analytic review). These destructive effects might primarily arise because of the impact negative communication strategies have on the targeted partner. For example, negative strategies, such as guilt

induction, pressures for change, and coercive derogation, have been linked with greater hostility, defensiveness, and resistance by the targeted partner (Lewis & Rook, 1999; Orina, Wood, & Simpson, 2002; Overall, Fletcher, Simpson, & Sibley, 2009). Accordingly, perceiving negative regulation strategies from the partner may produce more pronounced reductions in inferred ideal consistency and, in turn, lower relationship evaluations (Path E). Negative strategies may also be less successful at promoting self-regulation attempts by creating behavioral resistance; thus, we hypothesized that perceptions of partner's regulation strategies might directly influence levels of self-regulation (Path F). In contrast, more positive regulation strategies, such as reasoning and expressing love and affection, should communicate concern and respect, and, as a result, induce favorable relationship evaluations (Path E). Perceiving positive regulation strategies from the partner might also encourage targeted partners to be more open and willing to change targeted attributes (Path F).

### *Current study*

This study investigated the consequences that perceiving regulation from the partner has for target's self and relationship evaluations by testing the model shown in Figure 1. To recap, we predicted that perceiving higher levels of regulation from the partner would lower the degree to which individuals felt they matched their partner's ideal standards (inferred ideal consistency; Path A). Such reductions in perceived regard should (a) reduce the extent to which individuals believe they possess targeted qualities (self-perceptions; Path B), (b) produce more negative evaluations of relationship quality (Path C), and (c) increase the efforts individuals apply to improving targeted self-attributes (self-regulation; Path D).

We tested these hypotheses by gathering reports of regulation from the partner along important relationship-relevant dimensions and assessing inferred ideal consistency, self-perceptions, and self-regulation attempts within the targeted domains as well as global evaluations of relationship quality.

We also measured the regulation strategies individuals perceived their partner generally employ and examined if negative regulation strategies magnify the harmful impact of partner's regulation attempts (see Path E) and influence whether individuals respond with self-regulation efforts (see Path F). Importantly, we assessed all variables across a 6-month period to test the paths shown in Figure 1 both cross-sectionally and longitudinally. The longitudinal element provides a crucial test of whether perceived regulation produces changes in evaluations and behavior. We also tested these paths controlling for self-esteem, which biases perceptions of partner's regard and behavior (Murray et al., 2000; Murray et al., 2001; Murray et al., 2006).

## **Method**

### *Participants*

Participants were 113 women and 89 men enrolled at the University of Auckland and involved in romantic relationships of at least 6 months duration ( $M = 2$  years,  $SD = 1.9$  years). Participants were a mean age of 21.90 ( $SD = 5.30$ ), and 74% were married ( $n = 13$ ), living with their partner ( $n = 59$ ), or rated their relationship as serious ( $n = 77$ ). Of the remaining, 46 reported their relationship as steady and 7 as casual.

### *Materials*

The primary measures were constructed from the short forms of the Partner Ideal Scales originally developed by Fletcher and colleagues (1999). These scales have good reliability and validity, and comprise three distinct factors (Campbell et al., 2001; Fletcher et al., 1999; Fletcher et al., 2000a): warmth/trustworthiness (understanding, supportive, kind, good listener, sensitive, and considerate), attractiveness/vitality (sexy, nice body, attractive appearance, good lover, outgoing, and adventurous), and status/resources (successful, nice house, financially secure, dresses well, and good job). Using scales developed and validated by Overall and colleagues (2006), these 17 characteristics were used to create the following four separate measures.

### *Self-perceptions*

Participants rated each characteristic according to the extent to which each attribute accurately described themselves (1 = *not at all like myself*, 7 = *very much like myself*).

### *Inferred ideal consistency*

To assess inferences regarding how closely the self matched the partner's ideal standards, participants rated the extent to which they believed each attribute matched their *partner's* ideal (1 = *I do not match my partner's ideal at all*, 7 = *I completely match my partner's ideal*).

### *Self-regulation of self-attributes*

Participants also rated each attribute according to how much they had tried to change that aspect of themselves during the past 6 months (1 = *not tried at all to change*, 7 = *tried hard to change*).

### *Perceived regulation from the partner*

To assess the partner's regulation, participants were asked to "rate the extent to which your partner has actually tried in some way to change (or attempted to get you to change) this aspect of you over the last 6 months" (1 = *not tried at all to change*, 7 = *tried hard to change*).

Consistent with Overall and colleagues (2006), for each measure, confirmatory factor analyses confirmed the three-factor structure representing the three ideal dimensions. Items were averaged to produce single indexes for each dimension and all scales demonstrated good internal consistency and reliability across time (Table 1). Higher scores reflect more positive self-perceptions, more positive inferences that the self matches the partner's ideal standards, greater efforts to change self-attributes, and higher levels of perceived regulation from the partner.

### *Perceptions of partner's regulation strategies*

To assess the strategies that partners generally used when attempting to change self-attributes

or behavior, participants were instructed to "think about aspects of yourself that your partner has wanted to change and/or times when features of yourself irritated or upset your partner, or caused problems or conflict in your relationship." Participants then rated the extent to which their partner engaged in a variety of behaviors when these situations arose in the past 6 months (1 = *did not do this at all*, 7 = *did this very frequently*). The specific items were developed from a review of existing influence and conflict tactic taxonomies (Overall et al., 2009). Eleven items tapped negative regulation strategies (e.g., "My partner criticized the aspects of me he/she wanted changed") and 10 items assessed positive regulation strategies (e.g., "My partner expressed love and affection while discussing what he/she wanted changed so that I still knew he/she loved me"). Factor analysis established the items formed two orthogonal factors representing positive and negative strategies accounting for 47.54% (Time 1) and 50.26% (Time 2) of the variance. Items were averaged to provide separate indexes of partner's negative and positive regulation strategies. Both scales demonstrated good internal reliability and consistency across time (see Table 1), and perceptions of partner's positive and negative regulation strategies were not significantly correlated at Time 1 or Time 2 (Table 2).

### *Relationship quality*

The short Perceived Relationship Quality Components (PRQC) Inventory (Fletcher, Simpson, & Thomas, 2000b) assesses relationship quality with seven items tapping levels of satisfaction, commitment, intimacy, trust, passion, love, and romance in the relationship (e.g., "How satisfied are you with your relationship?" 1 = *not at all*, 7 = *extremely*). Averaging the items provided an overall index of relationship quality, and this measure had good internal and test-retest reliability (see Table 1).

### *Self-esteem*

Participants also completed the Rosenberg (1965) Self-Esteem Scale, which includes



**Table 2.** Cross-sectional associations across all measures at Time 1 and Time 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<b>Inferred ideal consistency</b>																
1. Warmth/trustworthiness	—	.29 <sup>†</sup>	.34 <sup>†</sup>	.65 <sup>†</sup>	.08 <sup>†</sup>	.17 <sup>†</sup>	-.10	-.01	-.12	-.48 <sup>†</sup>	-.07	-.19 <sup>†</sup>	.18 <sup>†</sup>	-.38 <sup>†</sup>	.52 <sup>†</sup>	.05
2. Attractiveness/vitality	.42 <sup>†</sup>	—	.50 <sup>†</sup>	.20 <sup>†</sup>	.65 <sup>†</sup>	.45 <sup>†</sup>	-.13	-.15	.06	-.12	-.35 <sup>†</sup>	-.06	.13	-.24 <sup>†</sup>	.30 <sup>†</sup>	.39 <sup>†</sup>
3. Status/resources	.35 <sup>†</sup>	.57 <sup>†</sup>	—	.22 <sup>†</sup>	.40 <sup>†</sup>	.75 <sup>†</sup>	-.19 <sup>†</sup>	-.07	.01	-.19 <sup>†</sup>	-.20 <sup>†</sup>	-.26 <sup>†</sup>	.02	-.27 <sup>†</sup>	.36 <sup>†</sup>	.49 <sup>†</sup>
<b>Self-perceptions</b>																
4. Warmth/trustworthiness	.69 <sup>†</sup>	.21 <sup>†</sup>	.26 <sup>†</sup>	—	.17 <sup>†</sup>	.27 <sup>†</sup>	-.07	-.03	-.01	-.27 <sup>†</sup>	.01	-.04	.04	-.12	.30 <sup>†</sup>	.08
5. Attractiveness/vitality	.16 <sup>†</sup>	.59 <sup>†</sup>	.41 <sup>†</sup>	.16 <sup>†</sup>	—	.53 <sup>†</sup>	-.18 <sup>†</sup>	-.13	.03	.03	-.21 <sup>†</sup>	.09	.02	-.01	.16	.49 <sup>†</sup>
6. Status/resources	.22 <sup>†</sup>	.37 <sup>†</sup>	.72 <sup>†</sup>	.26 <sup>†</sup>	.46 <sup>†</sup>	—	-.11	-.02	.11	-.04	-.11	-.07	-.06	-.05	.21 <sup>†</sup>	.51 <sup>†</sup>
<b>Self-regulation</b>																
7. Warmth/trustworthiness	-.25 <sup>†</sup>	-.15 <sup>†</sup>	-.12	-.20 <sup>†</sup>	-.09	-.15 <sup>†</sup>	—	.57 <sup>†</sup>	.44 <sup>†</sup>	.52 <sup>†</sup>	.42 <sup>†</sup>	.34 <sup>†</sup>	.22 <sup>†</sup>	-.09	.05	-.20 <sup>†</sup>
8. Attractiveness/vitality	.04	-.10	-.02	.04	-.09	-.07	.50 <sup>†</sup>	—	.56 <sup>†</sup>	.32 <sup>†</sup>	.53 <sup>†</sup>	.32 <sup>†</sup>	.16 <sup>†</sup>	-.03	-.04	-.12
9. Status/resources	-.01	.01	.05	.02	-.02	-.01	.47 <sup>†</sup>	.60 <sup>†</sup>	—	.28 <sup>†</sup>	.30 <sup>†</sup>	.44 <sup>†</sup>	.07	.01	.03	-.01
<b>Perceived regulation from partner</b>																
10. Warmth/trustworthiness	-.48 <sup>†</sup>	-.22 <sup>†</sup>	-.22 <sup>†</sup>	-.38 <sup>†</sup>	-.05	-.15 <sup>†</sup>	.59 <sup>†</sup>	.33 <sup>†</sup>	.31 <sup>†</sup>	—	.49 <sup>†</sup>	.52 <sup>†</sup>	.05	.39 <sup>†</sup>	-.23 <sup>†</sup>	.04
11. Attractiveness/vitality	-.14 <sup>*</sup>	-.36 <sup>†</sup>	-.19 <sup>†</sup>	-.07	-.19 <sup>*</sup>	-.10	.23 <sup>†</sup>	.16 <sup>†</sup>	.12	.52 <sup>†</sup>	—	.53 <sup>†</sup>	.13	.27 <sup>†</sup>	-.04	-.19 <sup>†</sup>
12. Status/resources	-.15 <sup>†</sup>	-.13	-.17 <sup>†</sup>	-.01	-.04	-.14 <sup>*</sup>	.21 <sup>†</sup>	.09	.23 <sup>†</sup>	.41 <sup>†</sup>	.55 <sup>†</sup>	—	.13	.26 <sup>†</sup>	-.03	-.01
<b>Perceptions of partner's regulation strategies</b>																
13. Positive strategies	.01	-.03	.01	-.01	-.09	-.07	.28 <sup>†</sup>	.14 <sup>*</sup>	.12	.19 <sup>†</sup>	.17 <sup>†</sup>	.21 <sup>†</sup>	—	-.11	.23 <sup>†</sup>	-.04
14. Negative strategies	-.37 <sup>†</sup>	-.19 <sup>†</sup>	-.09	-.21 <sup>†</sup>	.03	-.01	.04	.11	.04	.33 <sup>†</sup>	.23 <sup>†</sup>	.18 <sup>†</sup>	-.03	—	-.37 <sup>†</sup>	-.05
15. Relationship quality	.37 <sup>†</sup>	.24 <sup>†</sup>	.27 <sup>†</sup>	.22 <sup>†</sup>	.17 <sup>†</sup>	.20 <sup>†</sup>	.11	.10	.17 <sup>†</sup>	-.11	.02	-.05	.23 <sup>†</sup>	-.32 <sup>†</sup>	—	.20 <sup>†</sup>
16. Self-esteem	.21 <sup>†</sup>	.39 <sup>†</sup>	.40 <sup>†</sup>	.20 <sup>†</sup>	.46 <sup>†</sup>	.39 <sup>†</sup>	.02	.06	.09	-.07	-.25 <sup>†</sup>	-.08	-.08	-.14 <sup>†</sup>	.23 <sup>†</sup>	—

Note. Correlations below the diagonal are correlations across Time 1 measures (N = 202). Correlations above the diagonal are correlations across Time 2 measures (N = 155).  
<sup>†</sup> p < .06. \* p = .05.

10 statements assessing global feelings of self-worth (e.g., "On the whole, I am satisfied with myself"; 1 = *strongly disagree*, 7 = *strongly agree*). We keyed items so that higher scores represented higher self-esteem, and averaged across the 10 items to compute an overall self-esteem score. The scale had good internal and test–retest reliability (see Table 1).

### Procedure

Participants completed the questionnaires individually or in same-gender groups of 2–6 people. After providing demographic information, participants completed the PRQC Inventory and Self-Esteem Scale, followed by the scales measuring self-perceptions and inferred ideal consistency, self-regulation, perceptions of partner's regulation attempts, and partner's regulation strategies.<sup>1</sup> The order in which these scales were presented was counterbalanced so that approximately half of the sample (a) answered the scales assessing self-perceptions and inferred ideal consistency before the scales assessing regulation, (b) reported on their own self-regulation attempts before reporting on their partner's regulation attempts, and (c) rated perceptions of their partner's regulation before reporting on their partner's regulation strategies.<sup>2</sup> Participants were reimbursed NZ\$20 for their time and effort.

After 6 months, participants were contacted and invited to participate in a follow-up session. The measures and procedure for the second session were identical to that described above, providing a full cross-lagged design.

## Results

The results are reported in two sections. First, we tested the paths in Figure 1 by

examining the associations between perceived regulation from the partner, inferred ideal consistency, self-perceptions, relationship quality, and self-regulation all collected at Time 1. We then examined the cross-lagged associations between these variables across Time 1 and Time 2.

### Cross-sectional analyses

Descriptive statistics for all scales at Time 1 are shown in the first column of Table 1. Participants overall reported quite positive self and relationship evaluations, relatively low levels of regulation from the partner, and perceived that their partner engaged in more positive than negative regulation strategies,  $t(201) = 10.64, p < .01$ .

As described in Figure 1, we predicted that the primary outcome of perceiving regulation attempts would be more negative inferences regarding how closely individuals matched their partner's ideal standards. Reduced inferred ideal consistency should, in turn, produce three outcomes: more negative self-perceptions (Path B), lower perceived relationship quality (Path C), and greater attempts to change targeted attributes (Path D). The cross-sectional associations shown in Table 2 support these predictions. For all three dimensions, perceptions of partner's regulation were associated with lower inferred ideal consistency within the targeted domain (Path A). Inferred ideal consistency was also negatively associated with self-perceptions (Path B) and relationship quality (Path C). Greater regulation from the partner was associated with greater self-regulation of targeted attributes, but (unexpectedly) inferred ideal consistency was not consistently associated with self-regulation attempts (Path D).

We used the EQS structural equation modeling (SEM) program (Bentler, 1995) to test all paths shown in Figure 1 simultaneously for each ideal dimension using the observed means. This analytic approach allowed us to examine the associations between inferred ideal consistency and self-perceptions, relationship quality, and self-regulation while controlling for perceived regulation from

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1. Participants also completed a series of additional questionnaires that are not germane to the current study.
  2. Participants who received the scales regarding their partner's regulation before rating their own self-regulation efforts reported higher levels of self-regulation across domains ( $\beta$ s =  $-.21$  to  $-.44, p$ s <  $.05$ ). Nevertheless, controlling for order across analyses did not change any of the reported effects.

the partner, as well as calculate indirect effects testing whether inferred ideal consistency mediates the links between perceived regulation and self-perceptions, relationship quality and self-regulation.

Consistent with the lack of association between inferred ideal consistency and self-regulation described above, initial analyses indicated that the model in Figure 1 was a relatively poor fit,  $\chi^2_s(10, 202) = 7.14$  to  $79.78$ ,  $ps = .31$  to  $.00$ , CFIs =  $.75$  to  $.99$ , RMSEAs =  $.25$  to  $.03$ , because the path running from inferred ideal consistency to self-regulation (Path D, Figure 1) was generally not significant ( $\beta_s = -.25$  to  $.05$ ; also see Table 2). Instead, the model that best fit the data for all three ideal dimensions included a direct path between perceived regulation from the partner and self-regulation of targeted attributes. The results of this revised model for each dimension are shown in Figure 2. All three models demonstrated excellent fit,  $\chi^2_s(10, 202) = 4.16$  to  $6.77$ ,  $ps > .33$ , CFIs =  $1.00$ , RMSEAs =  $.00$  to  $.03$ , and none of the unmodeled paths were significant ( $\beta_s = -.06$  to  $.13$ ). We discuss each path in the following sections.

#### *Path A: Inferred ideal consistency*

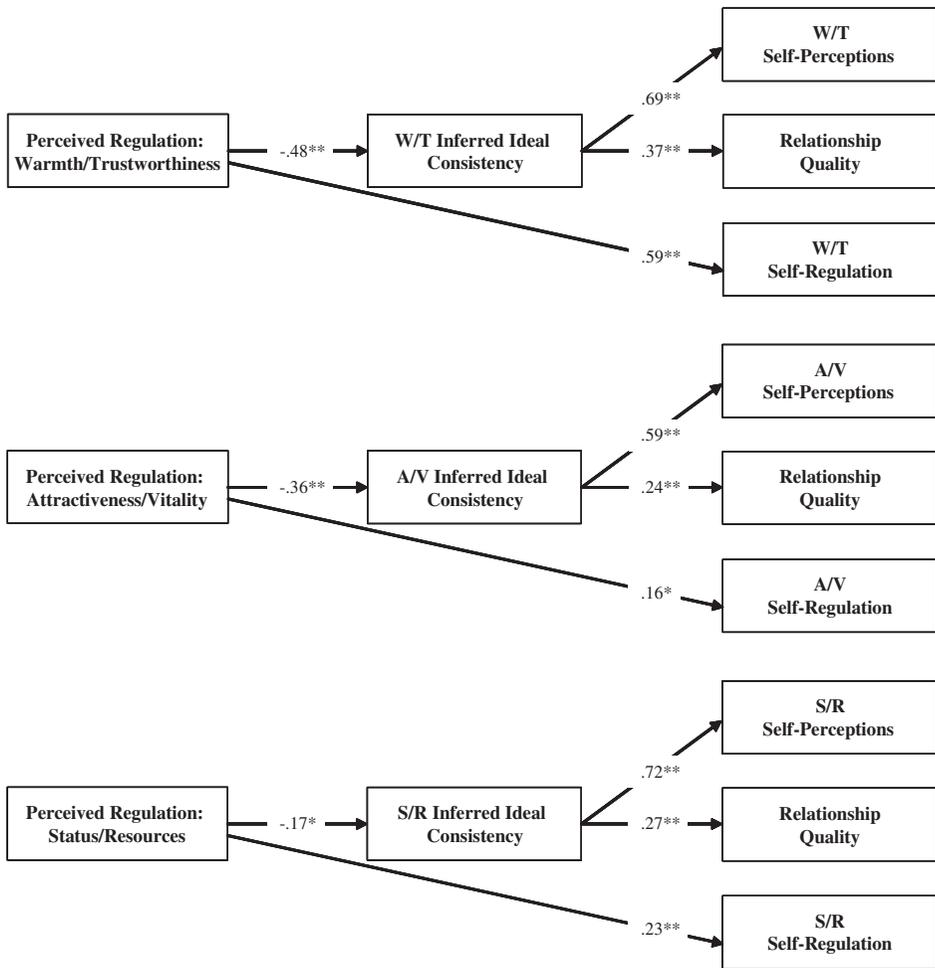
As predicted, individuals who reported greater regulation attempts from their partner in the past 6 months inferred they matched their partner's ideal standards to a lesser extent. We also tested Path A while controlling for the links between perceived regulation, inferred ideal consistency, and the other three outcome variables (i.e., adding self-perceptions, relationship quality, and self-regulation as additional predictors instead of dependent variables). Path A remained significant ( $\beta_s = -.24$  to  $-.26$ ,  $ps < .05$ ), although only marginally for status/resources ( $\beta = -.09$ ,  $p = .07$ ). These results indicate that perceiving regulation attempts from the partner is associated with inferences that the individual is not meeting the partner's expectations, regardless of how positively individuals evaluate themselves or their relationship or their own self-regulatory efforts to change targeted attributes.

#### *Path B: Self-perceptions*

Inferences of lower ideal consistency, in turn, were strongly associated with more negative self-perceptions. Reduction of the direct links between perceived regulation and self-regulation (see Table 2) to non-significance ( $\beta_s = -.06$  to  $.02$ ), and significant indirect effects of perceived regulation on self-perceptions across all three ideal dimensions ( $-.13$  to  $-.32$ ,  $z_s = -2.46$  to  $-6.46$ ,  $ps < .05$ ) supported the hypothesis that the associations between perceived regulation and self-perceptions would be mediated by inferred ideal consistency. Thus, as expected, perceiving regulation attempts from the partner is linked with poorer self-evaluations on the targeted domain because of more negative inferences regarding how closely the self matches the partner's ideals. However, in the models shown in Figure 2, the final paths (and associated dependent variables) do not control for one another. To test whether the paths from inferred ideal consistency to self-perceptions held when controlling for the remaining two dependent variables, we calculated the same model but only included self-perceptions as the final dependent variable while simultaneously adding relationship quality and self-regulation as additional predictors. Path B ( $\beta_s = .58$  to  $.72$ ,  $ps < .01$ ) and the mediation results ( $-.13$  to  $-.30$ ,  $ps < .05$ ) were unchanged.

#### *Path C: Relationship quality*

Similar results emerged for relationship quality. Higher inferred ideal consistency was associated with greater perceived relationship quality across ideal dimensions. Again, significant indirect effects ( $-.05$  to  $-.20$ ,  $z_s = -2.12$  to  $-4.48$ ,  $ps < .05$ ) indicated that receiving regulation attempts was associated with lower relationship quality by reducing inferred ideal consistency. Moreover, when recalculating Path C while simultaneously controlling for self-perceptions and self-regulation (as described above), the paths between inferred ideal consistency and relationship quality ( $\beta_s = .22$  to  $.44$ ,  $ps < .05$ ) remained strong and significant.



**Figure 2.** Path models testing the outcomes associated with perceiving regulation attempts from the partner.

*Note.* Values are standardized path coefficients. W/T = warmth/trustworthiness; A/V = attractiveness/vitality; S/R = status/resources.

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

*Path D: Self-regulation*

As noted above, perceptions of partner’s regulation was directly associated with increased efforts to change targeted self-attributes (see Figure 2), but inferred ideal consistency was not associated with self-regulation attempts when the links between perceived regulation and inferred ideal consistency were accounted for ( $\beta$ s =  $-.05$  to  $.09$ ). Consistently, the indirect effects testing whether inferred ideal consistency mediated the links between perceived regulation and self-regulation efforts were not significant across dimensions ( $-.02$

to  $.02$ ,  $z$ s =  $-1.18$  to  $.68$ ,  $p$ s  $> .05$ ). These unpredicted results suggest that perceiving regulation attempts from the partner directly motivates self-regulatory efforts independent of inferred ideal consistency, and these associations were not altered when controlling for relationship quality and self-perceptions ( $\beta$ s =  $.15$  to  $.61$ ,  $p$ s  $< .05$ ).

*Self-esteem and other potential artifacts*

We next controlled for a variety of potential artifacts. First, as expected, individuals who reported higher self-esteem possessed

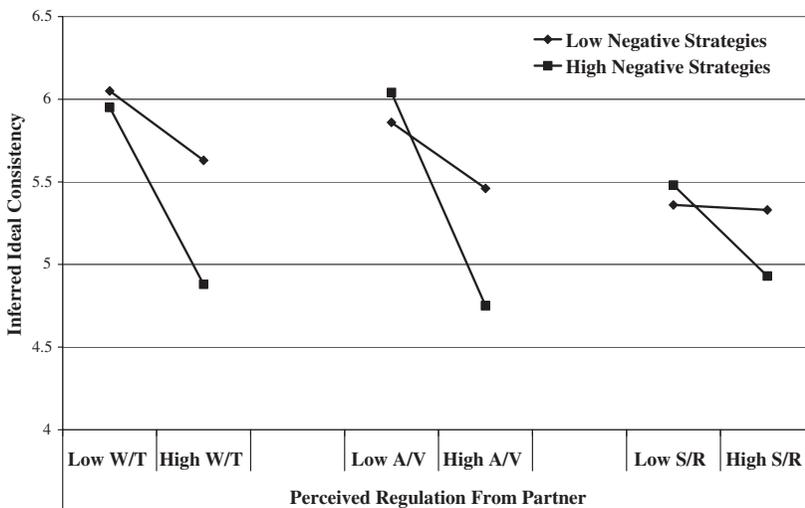
more positive self-perceptions, inferred ideal consistency, and relationship quality ( $r_s = .19$  to  $.46$ ,  $p_s < .05$ , see Table 2). To rule out the possibility that the associations in Figure 2 were produced by global self-evaluations, we recalculated all models controlling for self-esteem. None of the direct or indirect effects changed in their significance levels, with one exception: The direct path between received regulation and self-regulation of attractiveness/vitality attributes was reduced ( $\beta = .12$ ,  $p = .10$ ). Second, compared to men, women reported more negative evaluations of their attractiveness/vitality and perceived their partners to engage in greater warmth/trustworthiness regulation. Older participants and those in more serious relationships also perceived their partners to regulate status/resources attributes more and, thus, reported greater self-regulation of these qualities. Nevertheless, controlling for gender, age, or relationship status did not change the size or the significance of the paths in Figure 2.

*Paths E and F: Perceptions of partner's regulation strategies*

Finally, we tested whether the types of regulation strategies participants perceived

their partner had employed influenced the outcomes of perceived regulation by entering negative or positive regulation strategies, and the interaction term between perceived regulation and negative or positive strategies, as additional predictors of inferred ideal consistency (Path E) and self-regulation (Path F). We also ran additional analyses to test possible interactions between perceptions of partner's positive and negative strategies.

First, examining inferred ideal consistency (Path E), participants who perceived their partner to engage in more negative regulation strategies reported lower inferred ideal consistency of warmth/trustworthiness attributes ( $\beta = -.22$ ,  $p < .05$ ). Furthermore, as predicted, the interaction between the amount of regulation perceived from the partner and the degree to which partners were perceived to engage negative regulation strategies was significant across ideal dimensions (although only marginally for status/resources;  $\beta_s = -.12$  to  $-.17$ ,  $p_s < .09$ ). Figure 3 illustrates these interactions. Although greater regulation perceived from the partner was associated with lower inferred ideal consistency, this trend was more pronounced for individuals who perceived their partners as using more negative regulation



**Figure 3.** Interaction of perceived regulation from the partner and perceptions of partner's negative regulation strategies on inferred ideal consistency.  
*Note.* Low scores are 1 SD below the mean; high scores are 1 SD above the mean. W/T = warmth/trustworthiness; A/V = attractiveness/vitality; S/R = status/resources.

strategies. In contrast, perceptions of partner's positive strategies did not yield main or interactive effects when predicting inferred ideal consistency.

Analyses predicting relationship quality revealed that, regardless of the gross amount of regulation, perceiving the partner as using more negative regulation strategies was associated with lower relationship quality ( $\beta$ s =  $-.31$  to  $-.34$ ,  $ps < .05$ ), whereas perceiving more positive strategies was associated with greater relationship quality ( $\beta$ s =  $.23$  to  $.26$ ,  $ps < .05$ ). These associations held when controlling for inferred ideal consistency ( $\beta$ s =  $-.23$  to  $-.30$  and  $.22$  to  $.23$ ,  $ps < .05$ ), however, suggesting that type of regulation is directly associated with relationship evaluations and not mediated by lower inferred ideal consistency.

Second, analyses predicting self-regulation (Path F) revealed that more positive regulation strategies perceived from the partner were associated with greater self-regulation efforts to change warmth/trustworthiness ( $\beta = .18$ ,  $p < .05$ ) and attractiveness/vitality ( $\beta = .12$ ,  $p < .08$ ) attributes. These findings suggest that targets are more willing to change targeted features when they perceive their partner approaches change attempts in a more positive manner. Furthermore, significant three-way interactions on the warmth/trustworthiness and status/resources dimensions ( $\beta$ s =  $.12$  and  $.15$ ,  $ps < .05$ ) suggested that participants attempted less change in response to higher levels of regulation from the partner when the partner was perceived to engage high levels of negative strategies combined with low levels of positive strategies.

Finally, all main and interaction effects of regulation strategies were unchanged when controlling for self-esteem, gender, age, or relationship status, and controlling for type of regulation strategies did not change the paths shown in Figure 2.

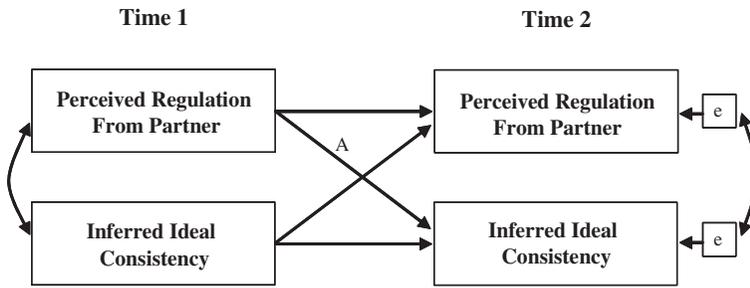
#### *Summary of cross-sectional analyses*

In general, the cross-sectional analyses supported our predictions. Higher levels of perceived regulation from the partner were

associated with more negative inferences regarding how closely individuals matched their partner's ideals. Lower inferred ideal consistency was, in turn, associated with more negative self-evaluations of targeted qualities and lower judgments of relationship quality. In contrast, perceived regulation from the partner was directly associated with self-regulation of targeted attributes rather than being mediated by ideal consistency. Finally, perceiving greater use of negative regulation strategies by the partner magnified the harmful impact of perceived regulation on inferred ideal consistency and was directly associated with more negative relationship evaluations. In contrast, perceiving more positive strategies engaged by the partner was connected with higher relationship quality and more responsive self-regulation efforts. Individuals also reported lower self-regulation when high levels of negative strategies by the partner were accompanied by low levels of positive strategies. These associations were generally evident across all three ideal dimensions and were unaltered when partialing out self-esteem and other potential artifacts, such as gender, age, and relationship status. Nevertheless, the cross-sectional nature of these analyses limits the causal claims we can make. Thus, we next tested these associations across time.

#### *Cross-lagged analyses*

Thirty-two participants had ended their relationship during the 6-month follow-up period, and 15 participants either chose not to participate or could not be contacted, leaving 155 participants. Participants whose relationship dissolved reported lower relationship quality ( $M = 5.32$ ) and perceived greater negative strategies from their partner ( $M = 3.29$ ) compared to those whose relationships remained intact ( $M = 5.99$  and  $2.64$ ),  $t(185) = -4.45$ , and  $2.69$ ,  $ps < .01$ . The within-subject longitudinal correlations revealed good consistency for each scale across time (see Table 1,  $r$ s across Time 1 and Time 2). However, mean levels of relationship quality and perceptions of partner's positive regulation strategies reduced over time, as did



**Figure 4.** Model testing the associations between perceived regulation from the partner and inferred ideal consistency across time.

inferred ideal consistency and self-perceptions (see Table 1, *ts* across Time 1 and Time 2).

Maintaining an SEM approach, we tested the across-time associations by sequentially examining the paths in Figure 1.

#### *Path A: Inferred ideal consistency*

We first examined the longitudinal links between perceiving regulation attempts from the partner and inferred ideal consistency. Our analytic strategy is illustrated in Figure 4. Path A in Figure 4 tests our prediction that greater regulation attempts from the partner would produce more negative evaluations regarding how closely individuals matched their partner's ideals, while controlling for (a) the association between perceived regulation and inferred ideal consistency at Time 1 (the double-headed arrow at the left-hand side of Figure 4) and (b) the within-measure longitudinal associations (e.g., path from Time 1 to Time 2 inferred ideal consistency). Importantly, we set the longitudinal within-measure path for inferred ideal consistency as equal to the equivalent path for perceived regulation to ensure that any differences in the cross-lagged paths were not a function of differential reliabilities across measures.<sup>3</sup>

The resulting standardized path coefficients are shown in the top row of Table 3. Across ideal dimensions, greater perceived regulation from the partner predicted significant reductions in inferred ideal consistency over the 6-month period, but not vice versa. These results indicate that perceiving greater levels of regulation from the partner reduces the extent to which individuals perceive they match their partner's ideals over time.

#### *Path B: Self-perceptions*

We next tested the impact of perceived regulation attempts and inferred ideal consistency on self-perceptions. To do this, we added Time 1 and Time 2 self-perceptions into the baseline model testing the associations between inferred ideal consistency and perceived regulation described above (see Figure 4). By using this analytic approach we achieved two aims. First, we could determine whether the links between perceived regulation and inferred ideal consistency remained significant while controlling for self-perceptions, which they did ( $\beta_s = -.13$  to  $-.16$ ,  $ps < .05$ ). Second, we could test whether inferred ideal consistency produced changes in self-perceptions over time. These path coefficients are shown in the second row of Table 3. Attractiveness/vitality and status/resources self-perceptions predicted longitudinal change in

3. The constraints of the within-longitudinal paths were not significant across analyses modeling variables for the warmth/trustworthiness and status/resources dimensions. However, the within-longitudinal paths assessing the across-time reliability of attractiveness/vitality perceived regulation and self-regulation were significantly lower than the across-time reliabilities of attractiveness/vitality inferred ideal consistency and self-perceptions, LM  $\chi^2$ s(2, 155) = 8.29 to 21.24,  $ps < .05$  (see *r* across Time 1 and Time 2 in Table 1).

Because the lower reliability of these paths might produce significant cross-lagged effects simply because there is more variance in perceived regulation and self-regulation at Time 2 left to explain, we continued to constrain these paths to be equal to the other within-longitudinal paths in each model.

**Table 3.** Standardized path coefficients from cross-lagged analyses testing the associations between received regulation attempts, inferred ideal consistency, and self-perceptions, relationship quality, and self-regulation across time (controlling for self-esteem)

	Inferred ideal consistency as predictor variable	Inferred ideal consistency as dependent variable	Received regulation as predictor variable	Received regulation as dependent variable
<b>Inferred ideal consistency</b>				
Warmth/trustworthiness	—	—	-.17* (-.17*)	-.07 (-.08)
Attractiveness/vitality	—	—	-.17* (-.14*)	-.05 (-.08)
Status/resources	—	—	-.20* (-.18*)	.06 (-.02)
<b>Self-perceptions</b>				
Warmth/trustworthiness	.13* (0.11 <sup>†</sup> )	.06 (0.04)	.01 (0.04)	.04 (0.05)
Attractiveness/vitality	.18* (0.17*)	.22* (0.14*)	-.09 (-.07)	.07 (0.05)
Status/resources	.30* (0.20*)	.36* (0.29*)	-.05 (-.03)	-.18 <sup>†</sup> (-.14)
<b>Relationship quality</b>				
Warmth/trustworthiness	.18* (0.17*)	.04 (0.05)	-.07 (-.08)	.07 (0.05)
Attractiveness/vitality	.05 (0.03)	.19* (0.14*)	.00 (-.01)	.03 (-.00)
Status/resources	.06 (0.07)	.11 <sup>†</sup> (0.07)	-.03 (-.02)	.02 (0.01)
<b>Self-regulation</b>				
Warmth/trustworthiness	.10 (0.13)	.15 <sup>†</sup> (0.16*)	.26* (0.22*)	.24* (0.17*)
Attractiveness/vitality	.03 (-.01)	-.08 (-.06)	.32* (0.35*)	.31* (0.33*)
Status/resources	.15* (0.13 <sup>†</sup> )	.01 (0.01)	.19* (0.17*)	.17* (0.18*)

Note. The cross-lagged associations with inferred ideal consistency and received regulation were calculated simultaneously. Coefficients in parentheses are from models including self-esteem as an additional predictor (Time 1) and dependent (Time 2) variable.

<sup>†</sup>  $p < .10$ . \*  $p < .05$ .

inferred ideal consistency, suggesting that inferences regarding how closely individuals meet their partner's ideal standards are influenced by their own evaluations of corresponding self-attributes. Nevertheless, controlling for this effect, across all three dimensions lower inferred ideal consistency at Time 1 predicted significant reductions in how positively individuals perceived themselves within the corresponding domain 6 months later. These cross-lagged effects provide strong evidence that individuals' perceptions of how they are evaluated by their partners influence how they view themselves over time.

#### Path C: Relationship quality

We tested the impact of perceived regulation and inferred ideal consistency on evaluations of relationship quality using the same approach. The path coefficients when Time 1 and Time 2 measures of relationship quality

were added into the model in Figure 4 are shown in the third row of Table 3. As predicted, lower warmth/trustworthiness inferred ideal consistency was associated with reductions in relationship quality across time. Unexpectedly, however, relationship quality predicted change in attractiveness/vitality inferred ideal consistency. Nevertheless, controlling for relationship quality across time did not reduce the longitudinal effect of perceived regulation on inferred ideal consistency for any of the ideal dimensions ( $\beta$ s =  $-.17$  to  $-.19$ ,  $ps < .05$ ).

#### Path D: Self-regulation

Following the same analytic procedures we tested the longitudinal links between perceived regulation from the partner, inferred ideal consistency, and self-regulation. Consistent with the cross-sectional analyses, inferred ideal consistency did not (generally) predict

self-regulation over time (see bottom row of Table 3). Instead, across dimensions, greater regulation attempts perceived from the partner predicted increased self-regulation across the 6-month period. More self-regulation also predicted increases in received regulation attempts, indicating that perceptions of the partner's regulation attempts are influenced by individuals' own efforts to change self-attributes. Nevertheless, controlling for this effect, the significant cross-lagged paths running from perceived regulation to self-regulation indicate that being the target of partner's regulation attempts directly promotes self-regulatory efforts to improve targeted attributes. Furthermore, controlling for the longitudinal links between perceived regulation and self-regulation attempts did not reduce the longitudinal effects of perceived regulation from the partner on inferred ideal consistency ( $\beta_s = -.19$  to  $-.32$ ,  $ps < .05$ ).

#### *Summary of cross-lagged analyses*

The longitudinal analyses provide strong support for the proposed model. We summarize the results of the predicted cross-lagged effects in Figure 5. First, perceiving greater regulation from the partner predicted reductions in the extent to which individuals inferred they matched their partner's ideal standards across time. Second, lower inferred ideal consistency predicted more negative self-perceptions within the targeted domain 6 months later. Third, lower inferred ideal consistency of warmth/trustworthiness attributes was associated with reductions in relationship quality over time. Fourth, more regulation perceived from the partner motivated greater self-regulatory behavior, indicating that individuals responded to their partner's requests for change.

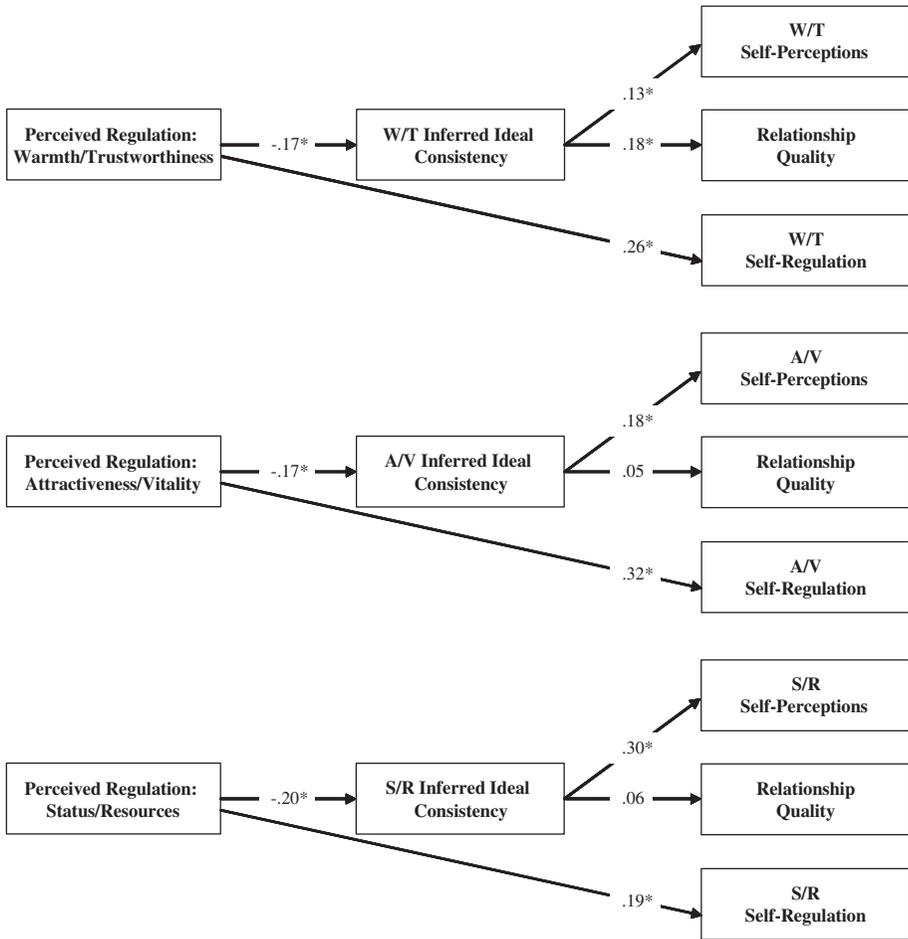
#### *Self-esteem*

We recalculated all of the cross-lagged models adding self-esteem as an additional predictor (Time 1) and dependent (Time 2) variable. Lower self-esteem predicted negative longitudinal changes in warmth/trustworthiness ( $\beta = -.10$ ,  $p = .08$ ) and status/resources ( $\beta = -.17$ ,  $p < .01$ ) inferred ideal consistency.

Nevertheless, controlling for self-esteem did not change the significant longitudinal associations displayed in Figure 5 and Table 3 (coefficients controlling for self-esteem are shown in parentheses). Moreover, lower inferred ideal consistency was associated with reductions in self-esteem across time ( $\beta_s = .13$  to  $.27$ ,  $ps < .05$ ), even when simultaneously predicting self-perceptions within the targeted domain ( $\beta_s = .14$  to  $.36$ ,  $ps < .05$ ). These results provide formidable evidence that (a) perceiving regulation from the partner reduces the degree to which individuals infer they match their partner's expectations, above and beyond the shaping influence of self-esteem, and (b) less positive inferences regarding how closely individuals match their partner's ideals reduces both self-perceptions of targeted attributes as well as global evaluations of self-worth. As before, controlling for other potential artifacts, such as gender, age, and relationship status, also did not alter the longitudinal effects shown in Table 3 and Figure 5.

#### *Paths E and F: Perceptions of partner's regulation strategies*

Finally, we tested the extent to which perceptions of the valence of partner's regulation strategies influenced the longitudinal paths summarized in Figure 5. Following the strategy described above, we first added perceptions of partner's negative or positive strategies measured at Time 1 and Time 2 into the baseline model shown in Figure 4 and interaction terms between perceived regulation and regulation strategies. First, controlling for amount of regulation received, perceiving higher use of positive regulation strategies at Time 1 predicted positive changes in warmth/trustworthiness ( $\beta = .15$ ,  $p < .05$ ) and attractiveness/vitality ( $\beta = .10$ ,  $p = .08$ ) inferred ideal consistency, and these main effects did not depend on level of perceived regulation (Path E). These results indicate that partner's positive regulation behavior communicates positive regard despite the fact that partners are attempting to produce change. In contrast, perceiving greater negative strategies did not significantly predict inferred ideal



**Figure 5.** Predicted cross-lagged associations over a 6-month period.

*Note.* Values are standardized path coefficients from cross-lagged analyses presented in Table 3. W/T = warmth/trustworthiness; A/V = attractiveness/vitality; S/R = status/resources. \*  $p < .05$ .

consistency over time ( $\beta$ s =  $-.11$  to  $.03$ ,  $ps > .05$ ). However, greater perceived regulation of attractiveness/vitality and status/resources attributes at Time 1 was associated with increases in perceived negative strategies by the partner 6 months later ( $\beta$ s =  $.17$  and  $.16$ ,  $ps < .05$ , respectively), suggesting that the more change partners attempt to produce, the more likely they will employ negative strategies (Rule, Bisanz, & Kohn, 1985).

Examining the impact of perceived regulation strategies on self-regulation (Path F), negative regulation strategies predicted reduced self-regulation efforts to change attractiveness/vitality ( $\beta = -.17$ ,  $p < .05$ ) and status/

resources ( $\beta = -.13$ ,  $p = .06$ ) self-attributes over time (controlling for amount of regulation from partner). These results suggest that the receipt of negative regulation strategies will be met with greater resistance to change targeted attributes. Perceiving positive strategies, in contrast, was not significantly associated with self-regulation over time ( $\beta$ s =  $-.02$  to  $-.09$ ,  $ps > .05$ ). No other main or interaction effects of perceived regulation strategies were significant and controlling for valence of regulation strategies did not reduce any of the longitudinal links shown in Table 3 and Figure 5.

## Discussion

This study indicates that perceiving regulation from the partner has important consequences for self-evaluations and behavior. Greater levels of perceived regulation from the partner were related to more negative inferences regarding how closely individuals believed they matched their partner's standards. Furthermore, consistent with prior research and theory highlighting the importance of perceived regard (Murray et al., 2006; Reis et al., 2004), reductions in inferred ideal consistency arising from greater perceived regulation from the partner had important and detrimental flow-on effects for the self and the relationship, including more negative self-perceptions and evaluations of relationship quality. These findings are discussed in more detail below.

### *Path A: Received regulation and inferred ideal consistency*

Extending the cross-sectional links reported by Overall and colleagues (2006), and providing a critical test of whether partner's regulation behavior provides diagnostic communication concerning how the self is regarded, greater perceived regulation predicted significant reductions in inferred ideal consistency over time for all three ideal dimensions.

### *Path B: Self-perceptions*

Higher levels of perceived regulation from the partner were also associated with more negative self-perceptions, but this effect was mediated by inferred ideal consistency. Moreover, more negative inferences concerning how the self was evaluated by the partner were associated with more negative self-perceptions of the targeted characteristics assessed 6 months later. Consistent with prior work, individuals' self-perceptions also produced longitudinal changes in the extent to which individuals inferred they matched their partner's attractiveness/vitality and status/resources ideals. Nevertheless, our overall longitudinal results were at variance with a major critique of the reflected appraisals hypothesis, which suggests that reflected appraisals are primarily a

function of the individual's self-perceptions (Kenny & DePaulo, 1993). Although this might be true in contexts that involve the judgments of strangers and nonsignificant others, in intimate relationship contexts the self is likely to be more attuned to behaviors that signal how the partner regards the self despite also being shaped by intimates own self-evaluations (Murray et al., 2000).

Within close relationships, personal well-being and desired outcomes depend on the actions and continued investment of the partner (Kelley & Thibaut, 1978). Thus, people should be strongly motivated to pay attention to information diagnostic of their partner's evaluations (such as regulatory behavior) because of the crucial outcomes associated with these judgments (e.g., acceptance and belonging vs. rejection and dissatisfaction). Moreover, this argument particularly applies to characteristics such as warmth/trustworthiness, attractiveness/vitality, and status/resources, which comprise the pivotal dimensions used to evaluate new or existing romantic partners (Buss, 1999; Fletcher et al., 1999) and the mate value of the self (Fletcher & Overall, 2007).

Although our analysis concentrated on specific evaluative dimensions, it seems likely that reflected appraisals will also feed into more global perceptions of how the partner evaluates the self and, in turn, general feelings of self-worth. Indeed, in addition to influencing perceptions of specific qualities, we found that lower inferred ideal consistency across all three ideal dimensions predicted reductions in self-esteem across time. Once again, these findings underscore the vulnerability of the self when faced with negative reflected appraisals.

### *Path C: Relationship quality*

Consistent with prior research (Campbell et al., 2001; Fletcher et al., 1999; Overall et al., 2006), lower inferred ideal consistency was cross-sectionally associated with more negative relationship evaluations across ideal dimensions. However, only lower inferred ideal consistency on the warmth/trustworthiness dimension was linked to reductions in

relationship quality over time. This finding is consistent with Overall and colleagues (2006) who reported that partner regulation of warmth/trustworthiness characteristics had a stronger effect on targeted partner's self and relationship evaluations. Both men and women place a premium on these traits (Fletcher et al., 1999; Fletcher et al., 2000a) and warmth/trustworthiness attributes are routinely expressed and entwined within day-to-day relationship interactions. Thus, people are likely to be particularly sensitive to both the self and partner's possession of warmth/trustworthiness qualities and the degree to which they meet their partner's expectations within this domain.

#### *Path D: Self-regulation*

We found good evidence, both cross-sectionally and longitudinally, that participants directly responded to their partner's regulation attempts by increasing self-regulatory efforts to change targeted characteristics. Contrary to predictions, however, the links between perceiving regulation from the partner and corresponding self-regulation efforts were not mediated by inferred ideal consistency. These results suggest that perceiving regulation attempts has independent cognitive (reduced inferred ideal consistency) and behavioral (self-regulation) effects. Perhaps individuals automatically pursue desired goals of the partner (Aarts, Gollwitzer, & Hassin, 2004) or are consciously motivated by a communal orientation to meet the needs of the partner (Clark & Mills, 1979) without any reference to self-based appraisals.

Thus, regulation attempts in intimate relationships seem to be firmly tied to the interdependent dance of behavior in relationships. Consistent with this notion, our longitudinal results suggest that self-regulation and perceptions of received regulation are locked together in circular causal paths. This is perhaps not surprising given that people may often attempt to enlist the support of the partner to achieve personal goals or suggest working together to achieve joint aims (going on a diet or attending a relationship-communication class together). Alternately,

perhaps the target's self-regulation reinforces the partner's perceived efficacy in producing change, thus encouraging the partner to step up their relatively successful regulation attempts (Bandura, 1992).

Regardless of such speculative explanations, there could be a silver lining to these processes. If targeted intimates try to change themselves in ways their partner desires without inferring their partner possesses negative evaluations, this might avoid the slide into negative self-perceptions and disappointment. If initial self-regulation attempts are not successful in ameliorating the partner's dissatisfaction, however, the partner's regulation efforts and consequent impact on the self might be pushed into overdrive, particularly if intimates feel change is unachievable.<sup>4</sup> Future research should examine whether the success of self-regulation efforts feeds back into evaluations of the targeted attributes or modifies the processes depicted in Figure 1.

#### *Paths E and F: Perceptions of partner's regulation strategies*

Finally, this study suggests that the way partners engage in regulatory efforts communicates important information about how the target is valued (Path E) and determines, in part, how targets react to regulation attempts (Path F). First, cross-sectional analyses revealed that when partners were perceived to engage negative regulation strategies, targets experienced more severe drops in inferred ideal consistency across ideal dimensions. Not surprisingly, perceiving more negative strategies was also associated with less positive evaluations of relationship quality, and vice versa. Furthermore, over time, greater receipt of positive strategies generally forecasted more positive inferences regarding the degree to which the self matched partner's expectations.

These results suggest that the manner in which partners go about their regulation attempts also provides diagnostic information to targets. Receiving negative regulation

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4. We thank an anonymous reviewer for pointing out these intriguing possibilities.

strategies from the partner, such as criticisms, punishment, or threats, clearly convey the partner's contempt and disregard for the feelings and desires of the target, thus exacerbating drops in inferred value and perceived relationship quality. In contrast, positive regulation strategies, such as expressing affection and validation during regulation attempts, should offset the negative effects of regulation behavior to some extent by communicating that the partner cares for and loves the target.

A positive regulatory approach might also result in targets being more open and willing to change (Path F). We found that targets were more receptive and responded with greater effort to change when reporting that their partners engaged in more positive regulation strategies, but were generally more resistant to change when their partners were perceived to use more negative regulation strategies (particularly if negative strategies were seen to be accompanied by low levels of positive strategies). These findings are consistent with a recent study investigating the short-term versus long-term success of communication strategies observed during problem-solving discussions. Overall and colleagues (2009) found that both agents and targets perceived more negative communication strategies as being less successful in producing immediate intentions to change, and targets tended to respond to negative regulation strategies with more hostile and defensive communication. In addition, initial negative responses by the target were associated with relatively slower change over time.

Taken together, these results suggest that using more negative regulation strategies may limit the effectiveness of regulation attempts because critical and blaming strategies communicate low regard and generate target resistance. Positive strategies, on the other hand, signal acceptance and value and motivate self-regulation attempts, as long as the message is not gift-wrapped to the point that it appears as if the communicator does not greatly care either way (Overall et al., 2009).

#### *Strengths, limitations, and caveats*

This study goes beyond prior research in some novel and important ways. First, it tested and

confirmed a model in which perceptions of regulation attempts from the partner shape self-perceptions via changes in an important class of reflected appraisals—*inferences regarding how closely individuals believe they match their partner's ideal standards.* Thus, this research both identifies a central route by which regulation and reflected appraisals modify self-perceptions and provides a noteworthy test of a general theory of self-development. Second, this study mapped longitudinally (for the first time) other important outcomes associated with the development of more negative reflected appraisals, including reduced relationship quality and increased self-regulation efforts. Third, no prior research (to our knowledge) has tested or supported a key postulate of self-regulation theories within the romantic domain, namely, that individuals are motivated to attain the goals and reach the standards of significant others (Higgins, 1987; Moretti & Higgins, 1999). As previously outlined, our results suggest that cognitive and behavioral responses to romantic partner's regulation may operate independently. And, fourth, by showing that positive regulation strategies convey regard and are more effective than negative strategies at motivating successful change over time, this research contributes to the wider body of research and theory concerned with communication in intimate relationships.

One limitation of this study is that it examined individuals rather than romantic couples, meaning that we relied on participants' perceptions of their partner's regulation attempts instead of their partner's own reports of regulatory behavior and ideal consistency. This approach could be considered problematic given the extensive evidence that judgments of the self and the relationship bias perceptions and interpretation of relationship events. Despite these biases, however, individuals also demonstrate reasonable accuracy in judgments of their partner's traits, thoughts, emotions, and behavior (Fletcher & Boyes, 2008). Moreover, examining romantic couples, Overall and colleagues (2006) found that both partner-reported regulation attempts and the targets' perceptions of that regulation behavior evidenced similar cross-sectional

associations with outcomes such as inferred ideal consistency, self-perceptions, and self-regulation.

However, a central axiom of social psychology that perceiver's judgments are filtered through theories, expectations, and so forth, remains fast. For example, in conjunction with the findings described above, Overall and colleagues (2006) demonstrated that perceptions of the partner's regulation behavior played a stronger role than partner reports of the regulation behavior. Indeed, the finding that perceptions of partners' behavior have important effects on relationship judgments beyond those predicted by the behavior reported by the partner is commonplace (Bolger, Zuckerman, & Kessler, 2000; Gable, Reis, & Downey, 2003).

In addition, the current research shows that the impact of relationships on the self is not exerted in a crude or simple fashion through the operation of halo effects or affective overflow. Rather, by tapping into what individuals believed was going on in their relationships, and controlling for self- and relationship-evaluation biases while tracking the impact of perceived regulation over time, our results reveal that perceived regulation from the partner has powerful and robust effects on crucial, specific classes of judgments and behavior. These include how individuals perceive they are valued by their partner, view themselves and their relationship, and the extent to which they try to change themselves in relationship-relevant ways.

Another limitation was that we did not specifically ask participants whether they were attempting to regulate self-attributes in the direction their partner desired. Thus, the links between perceived partner's regulation and increased self-regulation efforts might be due to individuals complying with their partner's desires to change (as we interpret the findings) or by resisting their partner's regulation by trying to change in the opposite direction. We think the latter possibility is unlikely. Instead, resisting partner's regulation is likely to reflect low or absent levels of self-regulation rather than active attempts to change in ways the partner does not desire (e.g., become less warmth and trustworthy).

Well-established interaction patterns illustrate that when intimates demand change of their partner by being autocratic, blaming, and coercive, targeted partners often respond with defensiveness, withdrawal, and reciprocation of hostility (Christensen & Heavey, 1990; Gottman, 1998), refusing to take on board the partner's position. These findings show that reactance is most likely to occur when individuals communicate desired change with critical, coercive strategies. Consistently, we found that targets reported lower attempts to change the self when they perceived their partners to use more negative regulation strategies but reported greater self-regulation when their partners used positive strategies. This pattern suggests that reactance to regulation from the partner produces lower self-regulation rather than greater self-regulation attempts in the opposite direction.

We also assessed general measures of positive and negative regulation strategies instead of asking how partners had attempted to change specific types of attributes. It is possible, for example, that particular types of discrepancies (i.e., less attractive than ideal compared to less financially secure) generate different tactics to produce change. In this vein, Overall and colleagues (2009) found that desired changes in warmth/trustworthiness characteristics posed more serious relationship problems for both agents and targets, and more serious problems were less likely to be dealt with in a positive manner. However, Overall and colleagues did not find that the particular communication strategies adopted were directly related to the type of attribute targeted for change. There were also no systematic differences in the outcomes associated with regulation strategies across ideal dimensions in this study, with the exception that inferred ideal consistency regarding warmth/trustworthiness was most strongly associated with strategy valence. These findings suggest that the way in which regulation is communicated may speak most strongly to a central category of reflected appraisals, namely, how the target is valued as a warm and trustworthy partner.

In addition, we did not distinguish between explicit verbal regulation attempts, such as

criticizing specific behaviors and providing rational reasons for change, versus more implicit nonverbal regulation, such as withdrawing and sulking or subtly rewarding desired behavior by buying presents and doing favors. More explicit, direct requests for change should increase the accuracy of targeted partners' reflected appraisals (Knudson, Sommers, & Golding, 1980), producing more pronounced reductions in inferred ideal consistency, self-perceptions, and relationship quality. On the other hand, because the target is more likely to grasp the nature and seriousness of the problem, frank verbal communication might motivate greater self-regulation attempts. Subtle indirect regulation, in contrast, may result in the targeted partner remaining unaware of the partner's desires for change and, thus, doing little about it (Overall et al., 2009). Understanding the full range and nature of partner regulation behaviors and how these modify reflected appraisal processes is an important direction for further research.

Participants in this research were relatively young and involved in satisfied relationships. Older married couples, who are more heavily invested in their relationships, might be more likely to regulate each other and use more negative strategies because of greater commitment to improving relationship problems (Orina et al., 2002). Alternatively, older intimates in more serious relationships might employ more positive strategies to sustain intimacy and closeness in their relationship. In this study, controlling for age and relationship seriousness (i.e., dating, living together, married) did not change the consequences of perceiving regulation from the partner or resulting reductions in inferred ideal consistency. Regardless of relationship status, however, the consequences of perceived regulation could be magnified when couples are experiencing major relationship difficulties. For example, high levels of regulation may cease to prompt self-regulation efforts if the relationship has become so acrimonious that the partner's desires and evaluations of the self no longer matter.

Finally, as already noted, our results indicate that perceiving the partner wants change

and evaluates the self negatively can diminish individuals' self-worth and relationship quality. Nonetheless, relationship regulation probably has a positive side. First, as already noted, partner regulation can motivate the self-regulation of targeted attributes, which has the potential to improve the relationship. Second, the processes outlined in Figure 1 suggest they meet functional goals, given the need for individuals to be sensitive to partners' waning affection or other problems within the relationship. Thus, these processes may signal when intimates can trust their partner to be responsive to their needs, when they need to take action to circumvent possible rejection, and, perhaps, when the individual should cut and run to secure positive and stable regard elsewhere. Nevertheless, undue sensitivity to rejection may kick these processes into overdrive, so that individuals who are chronically insecure of their partner's regard assign greater meaning to their partner's regulation than is warranted, resulting in unnecessary drops in self- and relationship evaluations (Murray et al., 2006).

### Conclusion

An influential body of research and theory reveals the importance of feeling secure in the love, caring, and regard emanating from the partner, thus setting the conditions for trust and commitment to flourish or be maintained (Murray et al., 2006; Reis et al., 2004). However, relationships are almost never perfect and people often try to improve their relationships by changing their partner in both small and major ways (Overall et al., 2006; Overall et al., 2009). Our results suggest that regulation attempts aimed at improving the relationship often undermine the felt security of the targeted partner. Moreover, negative reflected appraisals tend to have corrosive effects on the way that targeted partners evaluate their own qualities and self-worth, thus highlighting their role in shaping the self.

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