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### The State of our Union:

Appraisals of Romantic Relationships

Ву

Stephen Allan Michael Gallant

Bachelor of Arts (Honours), University of Prince Edward Island, 2001

### **THESIS**

Submitted to the Department of Psychology in partial fulfillment of the requirements for Master of Arts, Psychology

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Wilfrid Laurier University

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#### Abstract

How do romantic partners determine if they are happy in their current relationship? What standards do they use when appraising their romantic relationship? The present thesis examines people's preferences among various comparison standards (social comparisons, temporal past comparisons, temporal future comparisons and previous relationship comparisons) for relationship appraisal, the direction in which people prefer to make various relationship comparisons and the reported and actual impact of these comparison standards on relationship appraisals. The present research also examines the hypothesis that certain relationship beliefs and characteristics (controllability and satisfaction) affect how one interprets these comparison standards. In study 1, 140 undergraduate university students involved in dating relationships reported a preference for temporal comparisons to their relationship's past or future. Also, participants reported a preference for comparisons, which enhanced their current relationship and suggested optimism for the future. Finally, people reported that comparisons to previous romantic relationships resulted in the most positive relationship appraisals. Many of these findings were more pervasive across privileged than public relationship traits. In study 2, 128 undergraduate university students involved in dating relationships felt most positively about the love in their current relationship when asked to make comparisons to inferior and equal relationships among one's peers, superior and equal points in one's relationship's past and future and previous relationship comparisons of all directions. In addition, participants reported a preference for relationship-enhancing comparisons. Finally,

one's perceived control over love and relationship satisfaction influenced participants' interpretations of relationship comparisons. However, these moderating effects were not found for all comparison types and were not always in the predicted direction.

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How do dating couples determine if they are happy in their current relationships? What standards do they use when appraising their current relationships? This thesis will discuss various types of such comparisons, focusing on two in particular, temporal comparisons (comparing one's current relationship in the present to various points in time) and social comparisons (comparing one's current relationship to the romantic relationships of one's peers). First, this thesis reviews literature concerning various comparison types. Next, Study1 examines people's self- reports of their preferences for various comparison types and directions, and people's beliefs about the effects that these comparison types have on their relationship appraisals. Study 2 expands on Study 1 by examining not only people's beliefs in regards to their preferences for various comparisons and how these comparisons affect their relationship appraisals, but the actual impact those comparisons of various types and directions have on current relationship appraisals. Study 2 also examines perceived control over love as well as relationship satisfaction as potential factors that moderate the way that participants interpret comparisons of various types and directions.

### Social Comparison

Festinger (1954) introduced social comparison theory by suggesting that people have an innate desire to measure and evaluate themselves. To satisfy this desire for evaluation, Festinger believed that people first look to objective standards, and if none are available, they then compare themselves directly to other people with whom they possess similarities.

Research by Wood (1989) demonstrated that the way in which people use social comparisons depends on the goal they possess at that time. Three major self-appraisal goals are evaluation, enhancement and improvement. When someone possesses an evaluation goal, they are interested in seeking an accurate assessment of themselves, their relationships or their abilities. Social comparisons may be particularly important for evaluative purposes, particularly when the comparison target is seen as close or similar to the self (Major, Testa & Bylsma, 1991; Tesser & Campbell, 1983). Typically, people with evaluative goals are most likely to make comparisons with others who they feel are equal or better than them on the target trait. Researchers generally regard upward social comparisons (to a superior other) as threatening to people's egos (Wilson & Ross, 2001). However, people still often choose to compare themselves with superior others. This is because upward social comparisons provide people with valuable information about themselves (Collins, 1996). Conversely, a person with an enhancement goal has a desire to obtain a positive view of themselves, their relationships or their abilities. People with enhancement goals are more likely to make downward comparisons (with people who are inferior to them), which allows them to feel superior in contrast. Wills (1981) proposed that this is particularly the case when one finds oneself under some sort of threat. Finally, people with improvement goals, like those with evaluative goals, may seek comparisons with superior others. This allows them to identify weaknesses and model the superior other in order to improve. However, improvement and evaluative goals differ, in that people with improvement goals see the superior standing on the trait as attainable and focus on the comparison target's implications for their future selves, whereas those with evaluation goals focus on the comparison's implications for current standing.

There is a large literature on social comparison and self-evaluation (e.g. Wills, 1981; Wood, 1989), but considerably less for social comparison in a relationship context. Research that has been conducted to investigate social comparisons in a relationship context has produced contradictory results. A number of researchers have found that when assessing one's current romantic relationship, one tends to see one's relationship as better than the relationships of one's peers (Buunk & Van Yperen, 1991; Van Lange, Rusbult, Semin-Goossens, Goerts, & Stalpers, 1999). For instance, research has shown that people tend to believe that their own relationship is more equitable than the relationships of most others of their own sex (Buunk & Van Yperen, 1991). Other research has shown that the perception of superiority is more pronounced, the happier one is in one's current relationship (Buunk & van der Eijnden, 1997). People tend to experience more relationship satisfaction after making downward comparisons to the relationships of their peers, than after simply listing the positive traits of their relationship without comparison to other relationships (Buunk, Oldersma, & de Dreu, 2000).

However, romantic partners also report that social comparisons are not very important for evaluating their relationship (Wayment & Campbell, 2000). Participants were asked to estimate how often they use ten types of information (objective information, feedback from others, personal standards, feared future relationships, future ideals, positive and negative past relationship information, upward, lateral and downward social comparison) in relation to various motives (e.g., enhancement, improvement). Generally, personal standards, objective information, and future ideals were reported more often than any other types of information. Social comparison information was reported to be the least frequently used comparison information. Thus, although social

comparisons appeared to have an important impact on relationship evaluations (e.g., Buunk et al., 2000), people reported that they are relatively unimportant for these evaluations. Perhaps this discrepancy can be accounted for by the fact that Wayment and Campbell gave participants many types of information to choose from, whereas other researchers have focused only on social comparison. Alternatively, the conflicting findings may be a result of different methodologies- unlike many other studies, Wayment and Campbell obtained self-reports from participants. These reports may reflect self-presentational concerns, lack of accessibility of various information types, and people's theories about self-evaluation (e.g. Wood & Wilson, 2003). However, more research needs to be done on social comparisons within a relationship context before one can interpret their role.

## Temporal Comparison

Two decades after Festinger's (1954) seminal work on social comparison, Albert (1977) proposed a theory of temporal comparison, which suggests that people can also obtain information about themselves, not only by comparing to other people, but by comparing their present self to their past self or selves. Albert gave precedence to social comparisons, suggesting that people would only use temporal comparisons in the absence of social comparisons and objective information. More recently, however, researchers have suggested that temporal comparisons may be more useful than social comparisons for various reasons. First, temporal-past information is more readily available for use than is social comparison information: Many times, a given environment may make it difficult for people to find similar others with whom to compare, whereas a past self may almost always be available. Also, comparisons to past selves may be particularly

preferred by younger adults, who tend to see themselves improving over time more than do older adults. Therefore, downward comparisons to what they believe to be inferior past selves can be particularly enhancing and beneficial to them (Wilson & Ross, 2000; Wilson & Ross, 2001).

Ross' (1989) implicit theory model of memory construction is a good starting point to discuss the malleability of people's past identities and how they can affect their present identities and vice versa. Ross suggests that before one can assess one's past standing in regards to a particular attribute, one must first assess one's present standing on that trait. Then, an implicit theory of how the attribute may have changed or remained constant over time is used to assess one's past standing. If one has a theory of stability, one will recall one's standing in the past as similar to one's present standing on the attribute. Conversely, if a theory of change is activated, one will recall one's past standing as being different from one's present standing on the attribute.

Wilson and Ross (2001) furthered the notion of a malleable self by proposing a theory of temporal self-appraisal, which suggests that people choose to maintain positive self-regard by viewing their very recent past selves positively, while regarding their distant past selves negatively. Research on temporal self-appraisal theory has revealed that university students and middle-aged adults tended to criticize their distant past selves, particularly across attributes that were believed to be important, in order to enhance their present self.

These findings can be applied to not only the self, but to dating relationships as well. What little research there is on temporal comparisons in a relationship context has suggested that people reconstruct their memories of their relationship's history (e.g.,

McFarland & Ross, 1987; Miell, 1987). Often, like social comparisons, people tend to make downward comparisons to their relationship's past, meaning they choose to perceive their relationship's past as being inferior to their relationship in the present (Cameron, Ross & Holmes, 2000). According to longitudinal research, there tends to be a significant discrepancy between what actually happened in one's relationship's past and what one recalls happening in one's relationship's past. People tended to remember improvement in their relationship over time, even though concurrent relationship satisfaction ratings showed no such improvement (Karney & Coombs, 2000; Karney & Frye, 2002). This has been found to be the case in assessments of one's relationship's recent past more than in assessments of one's distant relationship past (Karney & Frye, 2002). Frye and Karney suggested that people may revise their memories over time. As a time period moves into the distant past, one's motivation to remember that remote time period in a self-enhancing manner may diminish.

In addition to comparing oneself to the way one was in the past, one can also compare oneself in the present to how one expects to be in the future. Temporal-future comparisons are usually not made as frequently as temporal past comparisons, perhaps because of the hypothetical nature of the future (Wilson & Ross, 2000). When temporal future comparisons are made, they tend to be upward, meaning people more often compare to points in their relationship's future that they think will be superior to their present (Wilson & Ross, 2001). It has been suggested that this is the case due to people's (particularly younger adults') beliefs that they will continue to improve on a given skill or trait over time (Ross, 1989; Wilson & Ross, 2000; Wilson & Ross, 2001). Similar findings for temporal-future comparisons are found in a relationship context. Whereas

people tend to prefer to criticize their relationship's past in order to enhance the way they feel about the relationship in the present, they tend to prefer to compare to points in their relationship's future that they feel will be superior to their relationship in the present (Cameron, Ross & Holmes, 2002; Karney & Frye, 2002; MacDonald & Ross, 1999). It appears that people tend to feel optimistic about the strength of their romantic relationships, which leads them to believe that their relationship will only continue to improve over time.

## Social Comparison vs. Temporal Comparison

While a great deal of research has focused on people's use of social comparisons (e.g., Buunk, Oldersma & de Dreu, 2000; Festinger, 1954; Wood, 1989), and a smaller body of research has focused on people's use of temporal comparisons (Albert, 1977; Cameron, Ross & Holmes, 2002; Wilson & Ross, 2001), only a very small body of research has focused on people's use of social comparisons versus their use of temporal comparisons (e.g. Rickabaugh & Tomlinson-Keasey, 1997; Robinson-Whelen & Kiecolt-Glaser, 1997; Wilson & Ross, 2000). The little research that has been conducted on these choices has provided contradictory findings. Some research indicates a preference for social comparison- for example, older adults prefer to make downward comparisons to their elderly peers, which may be more gratifying than temporal comparisons on attributes that may have declined with age (Rickabaugh & Tomlinson-Keasey, 1997; Robinson-Whelen & Kiecolt-Glaser, 1997). Younger adults also appear to sometimes prefer social comparisons, at least in competitive contexts (e.g. Hertzmann & Festinger, 1940; Miller, 1977 as cited in Suls & Mullen, 1982).

In contrast, other research has shown that people (particularly younger people) tend to make temporal comparisons more frequently than social comparisons when assessing themselves on various traits such as academic standing, social life (Wayment & Campbell, 1995) and ability to cope with medical problems (Affleck & Tennen, 1991). These findings may reflect younger adults' beliefs that they are improving consistently in a number of traits, thus rendering temporal comparisons particularly enhancing.

Wilson and Ross (2000) investigated the frequencies of both temporal and social comparisons in people's self-appraisals. They found that participants compared as much or more with their past selves than with others. Also temporal comparisons were more often downward than any other direction, whereas social comparisons occurred with roughly equal prevalence across the three directions. Also, the type of comparison used was dependent on the traits being discussed. Specifically, participants tended to use temporal past comparisons when assessing their level of self-confidence, and social comparisons when assessing their level of intelligence. A possible reason for this could be that a person's self-confidence is fairly privileged information, or information that is not easily observed in others. Hence, people might have easier access to their own selfconfidence over time than to privileged information about other people's confidence levels. Conversely, intelligence is an example of a trait that can be considered relatively public information, or information that is easily observed in others through such measures as test performance, reading ability, verbal skills, grades, etc. Hence, social comparison information may be more readily available for these public attributes.

In addition to attribute type (public/privileged), Wilson and Ross (2000) point to other factors that might influence comparison prevalence. In another study, they

examined celebrity interviews in popular magazines and found that the people being interviewed were much more likely to make comparisons with their past selves than with others. They suggested that this tendency might be especially pronounced in public settings when self-presentational concerns would be salient. Society tends to look more favourably upon people who are able to criticize themselves (even former selves) than people who choose to criticize others. Finally, they suggested that self-appraisal goals might moderate comparison preference. Because temporal comparisons were, for young adults, more often downward and gratifying, people may prefer temporal comparisons to fulfill enhancement goals and perhaps rely more on social comparisons to satisfy accurate self-evaluation goals. In two studies where self-appraisal motives were experimentally manipulated, this predicted pattern was found.

In summary, it appears that one's preference for social or temporal comparisons is dependent on the dimensions one is making comparisons on, one's social context, and one's self-appraisal goals at the time of the assessment.

## Previous Relationship Comparisons

Another interesting, yet under-researched, comparison type is comparison to one's previous romantic relationships. What makes this comparison type particularly interesting is that it involves aspects of both social and temporal comparisons. The social comparison element comes from the comparisons one makes between one's current romantic partner and one's previous romantic partner(s), while the temporal comparison element comes from the comparisons one makes between one's self as relationship partner in the present to one's self as a partner in the past.

We were unable to find research investigating the specific comparisons people make to their previous romantic comparisons, yet there is an interesting body of research on people's memories of their previous relationships. Weber, Harvey and Stanley (1987) discuss the accounts people make for failed past relationships. Weber et al. proposed that people reconstruct their past relationship accounts over time for their own personal benefit. Therefore, what one believes occurred in a relationship and what actually occurred need not be the same. It is suggested that such re-constructing of accounts is done for various reasons, such as to protect one's self-esteem, to facilitate the grieving process or to provide one with a perception of control over the events that led to the dissolution of the relationship and closure.

Andersen and Berk (1998) suggest that relationships with significant individuals from one's past may have a profound impact on one's current relationship. They propose a socio-cognitive model of transference in everyday interactions, in which mental representations of past significant others are stored in memory, and are later re-activated and applied to new significant others in the present, particularly when the new significant other resembles the past significant other in some way. Research by Anderson and her colleagues has supported this theory, as they have found that people showed more positive facial expressions towards, were more motivated to approach, and expected better treatment from new individuals who resemble positive past significant others as compared to new people who resemble a negative past significant other (Andersen, Reznik & Manzella, 1996). It is therefore plausible to suggest that when one compares a current relationship partner to a previous relationship partner one has had, the extent to

which one compliments or criticizes one's new partner may partly depend on the extent to which the new partner resembles one's former partner.

Frazier and Cook (1993) investigated the correlates of retrospective and current levels of distress among individuals who had experienced the break up of a previous relationship. Factors related to high relationship commitment (relationship satisfaction, closeness, and fewer perceived alternative partners) were positively correlated with higher levels of initial distress following the dissolution of one's previous relationship (retrospective ratings of distress). In contrast, coping-related variables (perceptions of control over the breakup, social support and self-esteem), were more strongly and positively correlated to reports of current recovery. These findings suggest that when one is asked to compare to one's current relationship and one's previous relationship, the extent to which one possesses the above mentioned commitment-related and coping-related variables should predict the extent to which one feels distressed or recovered in regards to one's previous relationship, which in turn may play a role in one interpreting one's previous relationship as superior or inferior to one's current relationship.

#### Study 1

The present research expands on the limited exploration of people's preferences for temporal and social comparisons when assessing romantic relationships. The present study was an exploratory study conducted to determine which types of comparisons people reported making when assessing their romantic relationships across various attributes, the directions of these comparisons (upward, downward, or same level) and to examine which comparison type led to the most positive reported relationship appraisals. Also, we expected, based on the findings of Wilson and Ross (2000), that the types of

attributes on which people were evaluating their relationship would play a role in determining which type of comparison information they were most likely to use. In this study, participants were asked to assess their relationship across traits that were likely to be considered privileged information, meaning information that is known basically between both partners only (e.g., satisfaction) and not easily assessed in others. Also, participants were asked to assess their relationship across traits that were more likely to be considered public information, meaning information that is known between both partners but can also be observed in peers' relationships (e.g., physical attractiveness of their relationship partner). We predicted that people would be more likely to choose to compare their current relationship presently to how it was in the past, or how they expect it to be in the future when assessing traits that can be considered privileged information. Conversely, we predicted that people would be relatively more likely to choose to compare their current relationship to the relationships of their peers when assessing traits that can be considered to be public information.

In regards to comparison direction, we predicted that, regardless of the type of attribute, participants' temporal comparisons would tend to be downward more often than lateral or upward. We anticipated that participants would most likely wish to believe that their relationship had improved and developed over time, thereby increasing the prevalence with which they reported comparing to inferior memories of their relationship's past.

We also predicted that participants' social comparisons would tend to be downward more than upward or same-level. Even though research on social comparison directions for self-assessment has shown greater variability in social comparison

directions as it relates to individuals, research on social comparison directions for romantic relationships has shown that people tend to prefer to enhance their current relationship, while derogating the relationships of their peers by comparing to what they feel are inferior other relationships more often than superior or equal relationships (e.g. Buunk & van der Eijnden, 1997; Buunk & Van Yperen, 1991; Van Lange, Rusbult, Semin-Goosens, Goerts & Stalpers, 1999).

In addition, we predicted that participants' temporal future comparisons would tend to be upward more than downward or same-level. We anticipated that participants would likely wish to believe that their relationship would continue to improve over time, thereby increasing the prevalence with which they reported comparing to superior points in their relationship's future.

Finally, because of a lack of past research, we had no clear prediction for previous relationship comparisons, but given that past research has shown that people revise their memories downward for both self-assessments (e.g. Wilson & Ross, 2000; Wilson & Ross, 2001) and relationship assessments (e.g. Cameron, Ross & Holmes, 2000; Karney & Coombs, 2000; Karney & Frye, 2002; McFarland and Ross, 1987), it seemed reasonable to predict that many previous relationship comparisons would be downward rather than upward or same-level.

## Study 1: Method

## Participants

Participants in this study were 140 undergraduate psychology students at Wilfrid Laurier University, who participated for course credit and who were currently involved in romantic dating relationships and had been involved in the same relationship for a

minimum of three months. Participants were recruited through Wilfrid Laurier University's online participant pool.

#### Materials

The primary material used in this study was a 3-part questionnaire used to measure the types of comparison information (social vs. temporal past vs. temporal future vs. previous relationship) that participants report using when they assess their current romantic relationships. Part A of the questionnaire was divided into two parts. The first part of the questionnaire assessed the prevalence (how many/ how often) of various forms of comparison information (Appendix A). Participants were asked to indicate how likely they were to use various sources of information to describe their current relationship on the following attributes: relationship satisfaction, love within the relationship, relationship passion, relationship closeness, relationship conflict, commitment, common interests and physical attractiveness of the participant's relationship partner. These eight attributes were selected as a result of a review of the literature as well as through discussion with colleagues.

## Dependent Variables

Perceived prevalence. Participants were asked to report how likely they are to use the following four types of comparison information when assessing their current relationships on the previously mentioned attributes:1) how their current relationship compares now to what it was like in the past (temporal past comparison), 2) how their current relationship compares now to what they expect it to be like in the future (temporal future comparison), 3) how their current relationship compares now to other romantic

relationships among other university students in their year (social comparison), and 4) how their current relationship compares now to other relationships that they have had in the past (previous relationship comparison). Each type of comparison information was rated on an 11-point scale (0= extremely unlikely, 10= extremely likely) to determine how likely the participants were to use each type of comparison information when assessing their relationship on each of the eight previously mentioned attributes. We were primarily interested in examining participants' preferences between social and temporal past comparisons. Therefore, the order in which participants were presented with social comparison and temporal past comparison-related questions and suggestions was counterbalanced throughout all sections of the questionnaire in order to avoid possible primacy effects due to one comparison type being consistently presented to participants first. Because temporal future and previous relationship comparisons were of secondary interest, questions for these comparison types were always presented after the social and temporal past questions.

Prevalence of comparison directions (open-ended narratives). The second part of this first section asked participants to expand on the previously-mentioned closed-ended measures by writing short narratives to further assess their current relationship for each of the eight attributes (Appendix B). Participants were instructed to use whatever information that they thought would help them to generate these descriptions, such as how their current relationship compares presently to what it was like in the past (temporal past comparison) or how they expect it to be in the future (temporal future comparison), how their current relationship compares presently to other relationships among their university peers (social comparison), how their current relationship compares presently to

other relationships they had been involved in previously (previous relationship comparison). These narratives were later coded for frequencies of each direction of each comparison type. The coding scheme for these narratives can be found in the appendices section (Appendix G).

Relationship appraisals. Part B of the questionnaire assessed the perceived effects of the various forms of comparison information under investigation on participants' relationship appraisals (Appendix C). Participants were asked to give their own personal overall rating of their current relationship for each of the eight relationship attributes on an 11-point scale (0= not at all, 10= extremely). Next, participants were asked to think about their current relationship using each of the previously mentioned comparison information types (Appendix D). Specifically, participants were asked how they would rate their current relationship across each of the eight attributes if they were to only use each of the four comparison types. For example, "If you compared your current relationship now only to what it was like in the past (to the point in your relationship's past you most often compare), how satisfied would you feel with your relationship?" This told us whether, overall, participants felt better about their relationships when considering one type of information over another.

Comparison direction prevalence (closed-ended measure). Part C of the questionnaire assessed the prevalence with which participants reported using different directions of each of the four comparison types when assessing their current relationship (Appendix E). There were three possible comparison directions: 1) upward, or comparisons made to superior comparison types, 2) downward, or comparisons made to inferior comparison types, and 3) same-level, or comparisons made to equal comparison

standards. Participants were asked to rate how often they used each of the three comparison directions when they compared their current relationship in the present to a point in their current relationship's past (temporal past comparison), to a point in their current relationship's future (temporal future comparison), to the relationships of other university students in their year (social comparison), to a previous relationship they have been involved in (combination of both social and temporal comparison) across each of the eight relationship attributes. The prevalence of each direction for each type of comparison was measured on an 11-point scale (0= never, 10= very often).

Public/privileged information. At the end of the questionnaire was a final scale (Appendix F). This scale asked participants to note whether or not they felt each of the eight relationship attributes being rated (satisfaction, love, commitment/fidelity, physical attractiveness, passion, closeness, common interests, conflict) was an example of either public information or privileged information on an 11-point scale, with higher numbers indicating a higher level of privileged information.

#### Procedure

The experimental session began by having participants meet in groups of five to 20 people. Participants were then instructed that the present research was being done to investigate the ways in which university students assess their current dating relationships, that all of the information they provided would be anonymous and that they had the option of removing themselves from the experimental session at any time they no longer felt comfortable participating. Informed consent was then obtained from each participant and the actual experimental procedure began.

Participants were then presented with the previously described questionnaire and were asked to complete it. Finally, participants were fully debriefed about the purpose of the experiment.

### Study 1: Results and Discussion

A reliability analysis of all eight traits under investigation was conducted for all of the three principal sections of Study1 (prevalence, relationship appraisals, and direction) and all comparison types under investigation. As Table 1 indicates, all alpha levels, with the exception of the alpha level for the effects of temporal past comparison and previous relationship comparison on relationship appraisals, demonstrated that all eight traits generally provided a global relationship assessment.

Table 1

Alpha levels for Comparison Prevalence, Relationship Appraisals and Direction

		Comparison Ty	pes	
	Social	Temp Past	Temp Future Prev	Relationship
Prevalence	.87	.70	.84	.92
	(n= 121)	(n = 129)	(n = 110)	(n = 100)
Appraisals	.78	.51	.84	.49
	(n = 127)	(n = 127)	(n = 125)	(n = 115)
Directions				
Upward	.91	.86	88	.95
	(n = 105)	(n = 102)	(n = 98)	(n = 88)
Downward	.90	.86	.92	.94
	(n = 113)	(n = 102)	(n = 95)	(n = 98)
Same-Level	.92	.88	.93	.96
	(n = 100)	(n = 98)	(n = 91)	(n = 78)

### Perceived Prevalence

The perceived prevalence ratings were aggregated across all eight traits for each of the four comparison types. A repeated measures ANOVA with comparison type (social vs. temporal past vs. temporal future vs. previous relationship) as the repeated variable yielded a significant effect for comparison type, F(3, 381) = 37.47, p < .0001. As Table 2 indicates, both temporal past and temporal future comparisons were reported to be more frequent than social comparisons and previous relationship comparisons, ts > 1000

6.67,  $p < .0001^1$ . The finding that temporal comparisons were reported more frequently than social comparisons contradicts the theories of Festinger (1954) and Albert (1977). However, these findings are consistent with Wilson and Ross' (2000, 2001) speculation that temporal comparisons are more self-relevant and readily accessible to people than are social comparisons. In addition, social desirability may play a role. Wilson and Ross have suggested that comparing to oneself, or in this case, to one's relationship over time, may be more socially acceptable than comparing oneself to others.

Overall Mean Prevalence Scores by Comparison Type

	Comparison Type						
and the state of t	Social	Temporal Past	Temporal Future	Previous Relationship			
	5.26a	6.67 <sub>b</sub>	6.68 <sub>b</sub>	5.08 <sub>a</sub>			
	(2.12)	(1.53)	(1.78)	(2.68)			

Note. Different subscripts within the row indicate significant differences between means. Standard deviations are in parentheses.

## Relationship Appraisals

Table 2

Participants reported how they would evaluate each of the eight relationship attributes if they focused only on one comparison type at a time. Relationship appraisal ratings were averaged across the eight relationship traits for each comparison type. To examine which of the four comparison types under investigation lead to the most positive

 $<sup>^1</sup>$  In order to investigate possible order effects, a subsequent 4 (Comparison Type: social vs. temporal past vs. temporal future vs. previous relationship) x 2 (Comparison Order: social comparison first vs. temporal past comparison first) mixed ANOVA was conducted on the prevalence data. A significant 2-way interaction was found, F(3, 366) = 6.66, p < .0001, indicating that temporal past and temporal future comparisons were reported more frequently than social and previous relationship comparisons, especially

relationship appraisals, a repeated measures ANOVA, with comparison type (social vs. temporal past vs. temporal future vs. previous relationship) as the repeated variable, yielded a significant effect for comparison type, F(3, 381) = 8.51, p < .0001. As Table 3 indicates, comparisons to previous relationships led participants to report significantly more positive relationship appraisals than social and temporal past comparisons, followed finally by temporal future comparisons, which resulted in the least positive reported relationship appraisals, ts > 2.07, ps < .04. It is possible that participants perceived previous relationships as being overwhelmingly inferior to their current relationship (a suggestion which will be further discussed and supported in the section on comparison direction prevalence). This negative generalization of previous relationships could have, in turn, made them particularly more flattering than any other comparison type, which may have led to more positive relationship appraisals. Another possible explanation for why previous relationship comparisons were found to result in more positive relationship appraisals could be that these comparisons have elements of both social and temporal comparisons. Therefore, when one compares one's current relationship to a previous relationship, in particular an inferior previous relationship, one is able to reap the benefits of making downward social as well as downward temporal past comparisons, thus resulting in a more enhanced positive appraisal. One is able to focus on how one's current relationship partner is superior to one's previous partner as well as how one has developed as a relationship partner over time. Conversely, temporal future comparisons, which are generally perceived as being upward (a suggestion which will be further supported in the prevalence of comparison direction section), may result in a less positive current relationship appraisal. Even though temporal future comparisons may highlight a more positive future, they can also cause the present to pale in comparison, resulting in a less positive current relationship appraisal. Also, comparisons to hypothetical future points may result in feelings of uncertainty. As a result, one may be hesitant to feel overly positive about one's current relationship based on such an uncertain comparison. This latter suggestion is purely speculative as we did not measure participants' feelings of certainty towards their various comparison targets.

Overall Mean Relationship Appraisal Scores by Comparison Type

	Comp	parison Type	
Social	Temporal Past	Temporal Future	Previous Relationship
7.76a	7.782	7.56 <sub>0</sub>	8.10 <sub>0</sub>
(1.02)	(1.46)	(1.22)	(1.54)

Note. Different subscripts within a row indicate significant differences between means. Standard deviations are in parentheses.

## Perceived Prevalence of Comparison Directions

All eight traits were averaged for each of the four comparison types, and were analyzed for perceived prevalence of each comparison direction (upward, downward, same-level). A 4 (Comparison Type: social vs. temporal past vs. temporal future vs. previous relationship) x 3 (Comparison Direction: upward vs. downward vs. same-level) repeated measures ANOVA was conducted on the direction data, and yielded a significant comparison type main effect, F(3, 330) = 16.66, p < .0001, indicating that

Table 3

overall, comparisons of all directions were reported more frequently for social comparisons than for temporal past and future comparisons, and finally previous relationship comparisons, ts > 2.66, ps < .009, (Ms (SDs) = 4.75 (2.34), 4.38 (2.26), 4.24(2.36) and 3.74 (2.78) respectively)<sup>2</sup>. Also, a main effect for comparison direction, F(2,(220) = 3.94, p = .02, indicated that participants reported significantly more downward comparisons than upward or same-level comparisons (Ms (SDs) =: 4.52 (2.44), 4.14 (2.46) and 4. 18 (2.42) respectively),  $ts \ge 2.69$ ,  $ps \le .008$ . A significant Comparison Type x Comparison Direction interaction was found, F(6, 660) = 41.30, p < .0001. Repeated measures ANOVAs on each comparison type separately yielded a significant direction effect for social comparisons, F(2, 264) = 16.03, p < .0001, temporal future comparisons, F(2, 266) = 41.66, p < .0001, and previous relationship comparisons, F(2, 266) = 41.66, p < .0001, and previous relationship comparisons, F(2, 266) = 41.66, p < .0001, and previous relationship comparisons, F(2, 266) = 41.66, p < .0001, and previous relationship comparisons, F(2, 266) = 41.66, p < .0001, and previous relationship comparisons, F(2, 266) = 41.66, p < .0001, and p = 41.66, p < .0001, and p = 41.66, p < .0001, and p = 41.66, p < .0001, p = 41.66, p = 41.66, p < .0001, p = 41.66, p < .0001, p = 41.66, p = 41.66, p < .0001, p = 41.66, p = 41.6238) = 58.44, p < .0001, but not for temporal past comparisons F(2, 268) = .083, p = .92. As Table 4 indicates, participants reported significantly more downward social comparisons, followed by same-level social comparisons and then by upward social comparisons, ts > 2.29, ps < .02. Participants reported significantly more downward previous relationship comparisons than either same-level and upward previous relationship comparisons, ts > 7.92, ps < .002. Participants reported significantly more

 $<sup>^2</sup>$  In order to examine possible order effects, a subsequent 4 (Comparison Type: social vs. temporal past vs. temporal future vs. previous relationship) x 3 (Comparison Direction: upward vs. downward vs. samelevel) x 2 (Comparison Order: social comparison first vs. temporal comparison first) ANOVA was conducted on the direction data. A significant Comparison Type x Comparison Type Order interaction was found, F(3,327)=4.57, p=.004, indicating that social comparisons of all directions were reported more frequently than temporal past comparisons and finally temporal future and previous relationship comparisons of all directions when social comparison-related questions were presented to participants before temporal comparison-related questions. In contrast, social, temporal past and temporal future comparisons of all directions were reported more frequently than previous relationship comparisons of all directions when temporal comparison-related questions were presented to participants before social comparison-related questions.

upward temporal future comparisons, followed by same-level temporal future comparisons and then by downward temporal future comparisons, ts > 3.14, ps < .0001.

Overall Mean Direction Prevalence Scores by Comparison Type

Table 4

Comparison Type					
	Social	Temporal Past	Temporal Future	Previous Relationship	
Upward	4.21a	4.55 <sub>a</sub>	5.172	2.90 <sub>a</sub>	
	(2.40)	(2.31)	(2.23)	(2.69)	
Downward	5.36	4.48a	3.316	5.22 <sub>b</sub>	
	(2.30)	(2.28)	(2.30)	(2.94)	
Same- Level	4.67 <sub>c</sub>	4.56 <sub>a</sub>	4.56 <sub>c</sub>	2.97 <sub>a</sub>	
	(2.35)	(2.20)	(2.40)	(2.60)	

Note. Different subscripts within a column indicate the significant differences between means. Standard are deviations in parentheses.

These findings suggest that, as predicted, one prefers to enhance the state of one's current romantic relationship by choosing to draw comparisons to inferior relationships among one's peers or to worse previous relationships. Also, these findings suggest that one prefers to remain optimistic about the future of one's current romantic relationship by drawing comparisons to superior points in one's relationship's future. This suggests that young adults feel that their current romantic relationship will continue to grow and improve over time. However, contrary to our predictions, participants reported all

may be that our sample consisted mostly of first year university students, many of whom may possibly be in either long distance or short term relationships. For these students, it may be more difficult to think of points in their relationship's past that would be inferior to their relationship in the present; either because the relationship is too much in the "honeymoon phase" to have many negative memories to compare to, or because the past was better for both partners before the relationship became long-distance. As a result, people may not feel comfortable consistently derogating their relationship's history, yet at the same time, are not willing to admit to their relationship's past being wholly superior to the present.

It should be noted that, as previously mentioned, temporal past and temporal future comparisons were reported most frequently in the prevalence section of the questionnaire, yet in the direction prevalence section, social comparisons were most frequently reported, collapsed across direction. Wood and Wilson (2003) have addressed this concern and suggest that broad questions about overall social comparison prevalence may elicit the previously mentioned social desirability concerns. Also, people may be burdened by such a broad question and have difficulty recalling past social comparison experiences. Yet when people are asked about more specific comparison behaviour, as was the case in the direction section of the questionnaire, the need for recall and synthesis of multiple comparisons is alleviated. Finally, it may be that the reported discrepancy in prevalence is, in part, an artifact of how the questions were organized. In the general prevalence section, participants reported the frequency of each comparison type relative to other comparison types. In the comparison direction section, participants may have,

instead, responded by estimating the frequency of each of the comparisons relative to other directions. If the scale was used to indicate relative frequency of direction within each comparison type, then these means may have been less likely to accurately reflect the frequency across comparison types relative to one another. Perhaps in future research, participants could be more clearly instructed to report comparisons of each direction relative to all other types and directions.

#### Correlations

Participants' current ratings of each of the eight traits (with higher numbers indicating more positive ratings) were averaged and correlated with reported frequencies of each comparison direction averaged across all eight traits. As Table 5 indicates, significant negative correlations were found between participants' mean level of satisfaction across all 8 traits and upward social comparisons, upward temporal past comparisons, downward temporal future comparisons, upward previous relationship comparisons, and same-level previous relationship comparisons. No other correlations reached significance.

It appears that those who are most satisfied with the current state of their romantic relationship are least likely to draw comparisons which may threaten their current relationship appraisal.

Table 5

Correlations Between Mean Attribute Satisfaction Ratings and Comparison Directions

	Comparison Type				
	Soc	Temp P	Temp F	Prev Rel	
	*	漆	*	*	
	Rating	Rating	Rating	Rating	
Direction					
Upward	20**	24**	.01	39**	
	(n = 133)	(n = 136)	(n = 136)	(n = 121)	
Downward	.08	07	24**	.02	
	(n = 137)	(n = 137)	(n = 136)	(n = 127)	
Same-Level	.05	.01	.04	21**	
	(n = 137)	(n = 135)	(n = 135)	(n = 125)	

Note. Soc= Social Comparison, Temp P= Temporal Past Comparison, Temp F= Temporal Future Comparison, Prev Rel = Previous Relationship Comparison

## Public vs. Privileged Information Analyses

Past research suggests that people's preferences for social and temporal comparisons are often dependent on the traits being discussed. Previous research has suggested that people show greater preference for temporal comparisons when assessing themselves on privileged traits, which cannot easily be assessed in others. Conversely, previous research has suggested that people show a greater preference for social

<sup>\* &</sup>lt; .05

<sup>\*\* &</sup>lt;.01

comparisons when assessing themselves on public traits, which can easily be assessed in others (Wilson & Ross, 2000). We were interested in examining whether or not preference for social and temporal comparisons would be trait-dependent for relationship appraisals. Specifically, we predicted that people would be more likely to prefer temporal comparisons for private attributes and social comparisons for public relationship attributes.

To investigate these predictions, the eight traits under investigation were designated into public and privileged categories by each trait's mean score on the public/privileged rating scale presented at the end of the questionnaire. The traits with the four highest means were placed in the privileged group (satisfaction, love, passion and closeness), whereas the traits with the four lowest means were placed in the public group (commitment, common interests, conflict and partner's physical attractiveness). A reliability analysis was conducted for public and privileged traits separately for all of the three principal sections of Study1 (prevalence, relationship appraisals, and direction) for all comparison types. As Tables 6 and 7 indicate, the majority of alpha levels demonstrate that the four public traits provide a relatively good global measure of relationship assessment, as do the four privileged traits. In general, alphas for the relationship appraisal ratings are notably lower than any other measurement type.

Table 6

Alpha levels for Comparison Prevalence, Relationship Appraisals and Direction Across

Public Traits

		Compariso	n Types	
	Soc	Temp P	wemp F	Prev Rel
Prevalence	.72	.55	.74	.85
	(n= 124)	(n = 130)	(n = 116)	(n = 109)
Appraisals	.42	.44	.52	.35
	(n = 131)	(n = 131)	(n = 129)	(n = 120)
Directions				
Upward	.80	.78	.81	.87
	(n = 110)	(n = 106)	(n = 107)	(n = 93)
Downward	.82	.72	.84	.89
	(n = 115)	(n = 106)	(n = 103)	(n = 104)
Same-Level	.86	.78	88	.92
	(n = 104)	(n = 106)	(n = 99)	(n = 91)

Note. Soc= Social Comparison, Temp P= Temporal Past Comparison, Temp F= Temporal Future Comparison, Prev Rel= Previous Relationship Comparison

Table 7

Alpha levels for Comparison Prevalence, Relationship Appraisals and Direction Across

		Comparison	Types	and the second s
	Soc	Temp P	Temp F	Prev Rel
Prevalence	.68	.62	.65	.84
	(n=131)	(n = 135)	(n=123)	(n = 109)
Appraisals	.83	.31	.85	.31
	(n = 128)	(n = 128)	(n = 127)	(n = 117)
Directions				
Upward	.86	75	.82	.91
	(n = 108)	(n = 107)	(n = 105)	(n = 94)
Downward	.83	.79	.88	.90
	(n = 117)	(n = 109)	(n = 100)	(n = 106)
Same-Level	.85	.80	.86	.89
	(n = 100)	(n = 100)	(n=100)	(n = 87)

Note. Soc= Social Comparison, Temp P= Temporal Past Comparison, Temp F= Temporal Future Comparison, Prev Rel= Previous Relationship Comparison

## Perceived Prevalence

Privileged Traits

To examine the effects of public/privileged information on the reported prevalence of various comparison types, the prevalence data were first analyzed with a 4

(Comparison Type: social comparison vs. temporal past comparison vs. temporal future comparison vs. previous relationship comparison) x 2 (Public/Privileged: public vs. privileged information) repeated measures ANOVA. Comparison type main effect patterns were the same as in the overall analysis. A significant main effect for public/privileged, F(1, 122) = 11.96, p = .02 indicated more comparisons overall were reported for privileged traits than public traits (Ms (SDs) = 6.04 (2.12) and 5.82 (2.27) respectively). This main effect was qualified by a significant Comparison Type x Public/Privileged interaction F(3, 366) = 6.46, p < .0001. To determine which comparison type showed the greatest difference in prevalence across public and privileged traits, difference scores were obtained by subtracting the overall privileged score from the overall public score for each comparison type. The greatest difference in prevalence from public to privileged traits was found for temporal past comparisons, compared to all other comparison types, ts > 2.52, ps < .01 (Ms(SDs) = temporal past comparison: -,70 (1.88), social comparison: -.25 (1.48), temporal future comparison: -.19 (1.52) and previous relationship comparison: .14 (1.71) respectively) (See Table 8).3

 $<sup>^3</sup>$  In order to examine possible order effects, a 4 (Comparison Type: social vs. temporal past vs. temporal future vs. previous relationship) x 2 (Public/Privileged: public vs. privileged information) x 2 (Comparison Order: social comparison first vs. temporal past comparison first) mixed ANOVA was conducted. A significant Comparison Type x Public/privileged x Comparison Type Order interaction was found, F(3, 351) = 4.78, p = .003, indicating that temporal comparisons were reported more frequently across privileged traits than public traits when temporal comparison-related questions were presented to participants before social comparison-related questions.

Table 8

Mean Comparison Prevalence Across Public and Privileged Traits

	Compariso	n Type		
Social Temporal Past		Temporal Future	Previous Relationship	
5.18 <sub>23</sub>	6.31 <sub>ba</sub>	6.63 <sub>ba</sub>	5.16 <sub>aa</sub>	
(2.25)	(1.99)	(2.12)	(5.16)	
d 5.39 <sub>ab</sub>	6.98 <sub>bb</sub>	6.77 <sub>ca</sub>	5.01 <sub>aa</sub>	
(2.22)	(1.60)	(1.80)	(2.85)	
	5.18 <sub>aa</sub> (2.25) ed 5.39 <sub>ab</sub>	Social Temporal Past  5.18 <sub>aa</sub> 6.31 <sub>ba</sub> (2.25) (1.99)  ed 5.39 <sub>ab</sub> 6.98 <sub>bb</sub>	5.18 <sub>aa</sub> 6.31 <sub>ba</sub> 6.63 <sub>ba</sub> (2.25) (1.99) (2.12) ad 5.39 <sub>ab</sub> 6.98 <sub>bb</sub> 6.77 <sub>ca</sub>	

Note. First subscript in each pair represents significant differences between means within rows. Second subscript in each pair represents significant differences between means within columns. Standard deviations are in parentheses.

These findings offer partial support to our original hypothesis. Temporal past comparisons, as predicted, were reported to be made more frequently across privileged traits than any other comparison type. However, we also predicted that social comparisons would be made more frequently than any other comparison type across public traits. This prediction was not supported, as once again, temporal comparisons were made more frequently than any other comparison type across public traits. However, in terms of relative preference, temporal past comparisons were most preferred relative to other comparison types across privileged traits, whereas only a small

preference for temporal comparison relative to other comparison types was found across public traits.

# Relationship Appraisals

Like the prevalence data, the relationship appraisal data were first analyzed by a 4 (Comparison Type: social comparison vs. temporal past comparison vs. temporal future comparison vs. previous relationship comparison) X 2 (Public/Privileged: public vs. privileged information) repeated measures ANOVA. Comparison type main effect patterns were the same as in the overall analysis. Also, a significant main effect was found for public/privileged, F(1, 125) = 96.21, p < .0001, with all comparison types resulting in more positive relationship appraisals on privileged traits than on public traits (Ms(SDs) = 8.47 (2.03) and 7.13 (1.10), respectively). This main effect was qualified by a significant comparison type X public/privileged interaction F(3, 375) = 5.46, p < .001. As Table 9 indicates, all comparison types led to equally positive relationship appraisals across public traits, ts < 1.25, ps > .21, whereas previous relationship comparisons led to more positive relationship appraisals than other comparison types across privileged traits, ts > 2.18, p < .031. Next, difference score analyses revealed that the largest difference in positive relationship appraisals from public traits to privileged traits was found in previous relationship comparisons followed by social and temporal past comparisons, whereas the smallest difference was found for temporal future comparisons, ts > 2.00, p <.05 (Ms (SDs) = -1.77 (2.55), -1.33 (1.52), -1.20 (2.54) and -.97 (1.39) respectively. It is possible that privileged aspects of previous relationships are fairly remote memories which are difficult for others to verify. As a result, they are particularly susceptible to

creative license, thus rendering them more malleable, resulting in the most positive relationship appraisals.

Table 9

Mean Relationship Appraisals For Each Comparison Type Across Public and Privileged

Traits

		Compariso	n Types	
	Social	Temporal Past	Temporal Future	Previous Relationship
Public	7.08 <sub>aa</sub>	7.15 <sub>m</sub>	7.08 <sub>aa</sub>	7.20 <sub>aa</sub>
Traits	(1.04)	(1.05)	(1.07)	(1.23)
Privileged	8.42 <sub>ab</sub>	8.38 <sub>ab</sub>	8.07 <sub>bb</sub>	8.99 <sub>cb</sub>
	(1.46)	(2.54)	(1.57)	(2.55)

Note. First subscript in each pair represents significant differences between means within rows. Second subscript in each pair represents significant differences between means within columns. Standard deviations are in parentheses.

# Prevalence of Comparison Directions

First, the comparison direction data were analyzed by a 4 (Comparison Type: social vs. temporal past vs. temporal future vs. previous relationship) x 3 (Comparison Direction: upward vs. downward vs. same-level) x 2 (Public vs. Privileged information) repeated measures ANOVA. Comparison type and comparison direction main effects were the same as in the overall analysis. A significant public/privileged main effect was found, F(1, 106) = 26.75, p < 0001, indicating that overall comparisons of all directions

and types were made more frequently for privileged traits than for public traits (Ms (SDs) = 4.47 (1.66) and 4.07 (1.86) respectively). Also, a significant Comparison Type x Comparison Direction x Public/Privileged interaction was found, F (8, 728) = 5.65, p < .0001. This 3-way interaction was investigated further by subsequent 3 (Comparison Direction: upward vs. downward vs. same level) x 2 (Public/Privileged: public vs. privileged information) repeated measures ANOVAs conducted for each of the 4 comparison types. Again direction main effects were the same as in the overall analysis.

A significant public/privileged effect was also found for social, temporal past and temporal future comparisons, all Fs > 11.11, ps < .001, but not for previous relationship comparisons, F(1, 108) = .862, p = .36. For social, temporal past, and temporal future comparisons, all comparison directions were significantly more prevalent across privileged traits than across public traits (social comparison Ms(SDs) = 4.89(1.88) and 4.53(1.99) respectively, temporal past comparison Ms(SDs) = 4.73(1.76) and 4.17(1.87) respectively, temporal future comparison Ms(SDs) = 4.52(1.87) and 3.93(1.98) respectively).

Significant Comparison Direction x Public/Privileged interactions were found for temporal future comparisons and previous relationship comparisons, Fs > 13.79, ps < .0001, but not for social comparisons and temporal past comparisons, Fs < .643, ps > .53. As Table 10 indicates, both upward and same-level temporal future comparisons were more prevalent for privileged traits than for public traits, ts > 2.28, ps < .02. Also, downward previous relationship comparisons were significantly more prevalent for privileged traits than public traits, t (118) = 4.25, p < .0001.

Table 10

Mean Temporal Future and Previous Relationship Comparison Direction Frequencies

across Public and Privileged Traits

		Comparison '	Types		
	Ten	nporal Future	Previo	us Relationship	
	<b>Directions</b>				
	Upward	4.49 <sub>aa</sub>		3.03 <sub>aa</sub>	
		(2.49)		(2.75)	
Public	Downward	3.08 <sub>ba</sub>		4.96 <sub>ba</sub>	
		(2.34)		(3.06)	
	Same Level	4.22 <sub>aa</sub>		3.08 <sub>aa</sub>	
raits		(2.60)		(2.79)	
	Upward	5.62 <sub>ab</sub>		2.85 <sub>aa</sub>	
		(2.43)		(2,87)	
Privileged	Downward	3.33 <sub>ba</sub>		5.56 <sub>bb</sub>	
		(2.44)		(3.04)	
	Same Level	4.61 <sub>d</sub>		2.91	
		(2.51)		(2.62)	

Note. First set of subscripts shows significant differences in means between directions within each public/privileged group separately. Second set of subscripts shows significant differences in means between public/privileged groups within each direction. Standard deviations are in parentheses.

Participants were likely able to draw relationship-enhancing comparisons to their past failed relationships as well as to hypothetical points in their relationship's future across privileged traits due to the fact that privileged traits are more ambiguous and less easily verified, making it easier for participants to use creative license to interpret them in ways which are most beneficial for their current relationship appraisals. Conversely, public traits are easier to verify. As a result, participants in this study might have had considerably more difficulty enhancing their relationship across the more verifiable public traits than across ambiguous privileged traits.

# Open-Ended Analyses

# Inter-Rater Reliability

The open-ended narratives were coded for the frequency with which participants made upward, downward and same-level social, temporal past, temporal future and previous relationship comparisons. A second rater, who was blind to the true purpose of the study, coded a random 25% of the narratives. Reliability, as calculated using Cohen's kappa, was acceptable for identification of social comparisons (.82), temporal past comparisons (.79), temporal future comparisons (.75) and previous relationship comparisons (.93). Inter-rater agreement, before making Cohen's correction for chance, was above 90% for all comparison types.

# Prevalence of Directions: All Traits Combined

These open-ended analyses were conducted in an attempt to replicate our closedended comparison prevalence and direction findings using a different methodology. We were interested in examining whether or not participants spontaneous relationship appraisal narratives would produce the same results as would the more structured closedended analyses, in which participants were specifically asked to provide frequencies with which they made upward, downward and same-level comparisons of each comparison type. First, the open-ended data were aggregated across all eight traits for each of the 4 comparison types. Next, a 4 (Comparison Type: social comparison vs. temporal past comparison vs. temporal future comparison vs. previous relationship comparison) x 3 (Comparison Direction: upward vs. downward vs. same-level) repeated measures ANOVA was conducted. A significant type main effect was found, F(3, 417)= 78.27, p < .0001, indicating that temporal past comparisons were more frequently made than social, previous relationship or temporal future comparisons, ts > 3.27, ps < .001(Ms (SDs) = 1.29 (.94), .42 (.59) . 38 (.59) and .19 (.35) respectively)<sup>4</sup>. Also, a significantdirection main effect was found, F(2, 278) = 38.36, p < .0001, indicating that downward comparisons were made more frequently than same-level and upward comparisons, ts > 3.94, ps < .0001 (Ms (SDs) = .89 (.82), .51 (.47) and .31 (.39) respectively). Main effectswere qualified by a significant Comparison Type x Comparison Direction interaction, F (6, 834) = 11.85, p < .0001. As Table 11 shows, when making social and previous relationship comparisons, participants made significantly more frequent downward comparisons, followed by equal amounts of same-level and upward comparisons, ts > 4.30, ps < .0001. When making temporal past comparisons, participants made significantly more downward comparisons, followed by same-level comparisons, and finally upward comparisons, ts > 2.31, ps < .02. Finally, participants made significantly

 $<sup>^4</sup>$  In order to examine possible order effects, a subsequent 4 (Comparison Type; social vs. temporal past vs. temporal future vs. previous relationship) x 3 (Comparison Direction; upward vs. downward vs. samelevel) x 2 (Comparison Order; social comparison first vs. temporal past comparison first) mixed ANOVA was conducted on the narrative data. A Significant Comparison Type x Comparison Type Order interaction was found, F(3, 414) = 2.91, p = .03, indicating that temporal past comparisons were reported

more temporal future same-level comparisons followed by equal amounts of upward and downward comparisons, ts > 2.59, ps < .01.

Ended Analyses

Table 11
Overall Mean Direction Prevalence Scores by Comparison Type per Narrative for Open-

	Comparison Type						
***************************************	Social	Temporal Past	Temporal Future	Previous Relationship			
Upward	.19 <sub>a</sub>	.812	.16 <sub>a</sub>	.07 <sub>a</sub>			
	(.62)	(1.25)	(.48)	(.37)			
Downward	.79 <sub>b</sub>	1.72	.08 <sub>a</sub>	.96 <sub>b</sub>			
	(1.38)	(1.83)	(.30)	(1.56)			
Same- Level	.28 <sub>a</sub>	1.32	.345	.10a			
	(.73)	(1.50)	(.65)	(.53)			

Note. Different subscripts within a column indicate the significant differences between means within columns. Standard deviations are in parentheses.

In the open-ended narratives, our initial hypotheses were supported, as participants preferred to make comparisons to inferior relationships among their peers, inferior points in their current relationship's past, as well as inferior previous relationships. These findings suggest that participants preferred to make comparisons of various types which enhanced the state of their present relationship. The open-ended findings for temporal past comparisons differ from the temporal past comparison findings

in the closed-ended section, which showed that temporal comparisons of all directions were reported with equal frequency, whereas a preference for downward temporal past comparisons was found for the open-ended narratives. This contradiction may be due to methodology. Perhaps, the open-ended narrative measure led participants to spontaneously assess their relationship by focusing on the most accessible and perhaps rewarding elements of the relationship. However, the more structured, closed-ended direction section may have brought to mind a more varied mix of comparisons, thus encouraging participants to provide a more even distribution of prevalence across all directions.

We also found conflicting results for temporal future comparisons. In the closedended section of our questionnaire, participants reported making more comparisons to
superior points in their relationship's future, suggesting that people are optimistic about
their relationship. However, in the open-ended narratives, participants made more
comparisons to equal points in their relationships future. Given that the number of future
comparisons in the open-ended section is low, it is difficult to know whether these two
patterns are meaningfully different. Upon examination of the same-level temporal future
comparisons in the narratives, it appears that the vast majority highlight a relationship
strength that is expected to continue. Hence, both temporal future upward and same-level
comparisons represent generally enhancing content and are not particularly inconsistent
with one another.

Study1 adds to the relatively small literature investigating the choices people make between social and temporal comparisons for evaluating romantic relationships. Also, the present research adds to the very small literature on previous relationship comparisons. As well, whereas past research used only one or two methods in a given study to investigate comparison standards, the present research accomplishes this task through several exploratory methods: overall comparison prevalence, relationship appraisals, prevalence of comparison directions, as well as open-ended relationship narratives. The methods that we used in this study reflect a variety of procedures found in the literature (e.g. Goolsby & Chaplin, 1988; Taylor, Neter & Wayment, 1995; Wayment & Campbell, 2000; Wilson & Ross, 2000). Also, the same types of inconsistencies that we observed can also be observed across studies using these various methods (see Wood & Wilson, 2003 for a review).

However, like all research, the present study has its limitations. The measurements we used were self-report methods. People were not given real comparison information and asked to select what interested them most, nor were they exposed to specific comparison targets to assess impact. In each section, participants reported their memories for the types of comparisons they typically use, or were asked to hypothetically estimate the effects of a range of comparisons of a particular type. These self-report measures contain a few problematic issues. First, there's the possibility of social desirability issues, which may have affected the prevalence with which participants admitted making certain comparisons (i.e., social comparisons in the general prevalence section) that may be frowned upon in society. Second, when one is asked to report the

prevalence with which one makes particular comparisons, or anything for that matter, there is always the possibility of memory and accessibility problems, which raises the question of whether or not one's behaviour and one's memory of the behaviour are the same.

It is also plausible that the order in which comparison-related questions were presented to participants may have influenced certain results. As previously mentioned, only social comparison and temporal past comparison-related questions were counterbalanced throughout the questionnaire. Therefore, temporal future and previous relationship comparison-related questions were always presented to participants last. As a result, the salience of these final two comparison types may have been compromised, resulting in a lower prevalence of temporal future and previous relationship comparisons across several measures in Study 1 (i.e. low general prevalence of previous relationship comparisons and a low prevalence of both temporal future and previous relationship comparisons of all directions in the closed-ended direction measure and the open-ended narratives).

Also, we failed to ask participants to provide several important and useful pieces of demographic and background information such as gender, age, relationship experience, sexual orientation, and whose idea it was to dissolve their previous relationship (s), thus rendering it impossible to investigate whether or not this demographic and background information may have moderated certain effects. For instance, it would have been interesting to investigate whether or not males and females or gays and lesbians and heterosexuals prefer different types of comparisons, or make different amounts of enhancing comparisons when assessing their relationships. Also, we

could have investigated whether or not one's previous relationship history (e.g. one's number of past relationships and whether or not one initiated the break-up of these relationships) affects the extent to which one chooses to criticize one's past romances had we asked participants to provide information regarding their dating history.

In summation, an interesting extension to this research would be to investigate how various personality characteristics and beliefs affect the types of comparisons one makes when appraising one's current relationship.

## Study 2

In Study 1, using several different methods, we examined how relationship partners viewed the role of various comparison standards in their appraisals of their romantic relationships. Since Study1 might be best characterized as representing people's beliefs about their comparison use, we sought to complement this work by further investigating not only people's beliefs, but the actual effects of the various types of comparisons in Study 2. If people are exposed to a single comparison of a specific type and direction, how does it affect their evaluation of their relationship? We asked people to generate a specific comparison target (e.g., an inferior past relationship, a superior peer's relationship) in regards to a specific relationship trait, and then asked them how they would evaluate their own relationship on that trait. Although Study1 showed that comparisons to previous relationships result in the most positive relationship appraisals, we were somewhat hesitant to predict that this would also be the case in Study 2, due to the different methodologies across both studies.

However, the effects of comparisons on relationship appraisals are not always straightforward. Typically, downward comparisons are considered to be enhancing,

whereas upward comparisons are considered to be threatening. Study 2 investigated how certain beliefs and attitudes can serve to moderate the effects of comparisons of various types and directions. This study also extended our findings from Study1 and examined whether these beliefs and attitudes can moderate people's self-reported frequencies of such comparisons.

Study 1 indicated that when people assess their romantic relationships, they tend to compare to worse other relationships, worse previous relationships and worse points in their current relationship's past, as well as better points in their relationship's future.

Typically, these types of comparisons suggest a desire for enhancement, resulting in positive affect. However, a particular comparison direction will not always have a particular affective result.

In regards to social comparisons, Buunk, Collins, Taylor, Van Yperen and Dakof (1990) suggest that both upward and downward comparisons can have either a potential positive or negative affective outcome. For instance, learning that one's peer is superior provides one with two types of information: a) the negative affective outcome that one is not better than everyone, and b) the positive affective outcome that one can potentially become better. Past research has supported the notion that upward comparisons need not always have a negative affective result. Taylor and Lobel (1989) show that cancer patients reported feeling encouraged when a fellow cancer sufferer has recovered from the disease. Also, research has shown that people who have various problematic behaviours such as smoking or snake phobias, and are exposed to others who have been able to overcome these problems or fears, have shown significant improvement in

overcoming these behaviours themselves (Bandura, Adams & Beyer, 1977; Bandura, Reese & Adams, 1982; Meichenbaum, 1971).

The same holds true for downward comparisons. Learning that one is superior to another provides one with a) the positive affective outcome that one is not as badly off as others, and b) the negative affective outcome that one could potentially become worse, which can cause one to lower one's expectations and aspirations for the future (Brown & Inouye, 1978). Research supports the notion that downward comparison need not always have a positive affective result. Tesser (1986) suggested that when people learn of close others who are worse off than them on a dimension that is not central to self-identity, it can cause them to feel negatively. Also, Brown and Inouye (1978) found that when people were led to believe that they were similar to an inferior confederate, they had lower performance expectations and demonstrated reduced persistence in attempting to complete a subsequent anagram task. Therefore, how a person feels as a result of both upward and downward comparisons depends on how they interpret the information presented to them.

#### Level of Control

Several factors can serve to moderate the affect that is produced by comparisons.

One such moderator may be the level of control people feel they have over the comparison dimension. When people feel that they have the control needed to change or alter the comparison dimension in question, they may believe they possess the ability to reach or surpass the standing of their superior comparison standards, and to avoid the fate of their inferior comparison standards (Buunk et al., 1990). Testa and Major (1990) found that levels of depression were lower among people who compared to superior

others (upward comparison), and perceived high control over their depression than those who perceived little control. Buunk et al.(1990) also found that cancer patients who felt that they could control their symptoms as well as the future state of their illness, were less likely to feel threatened by exposure to very ill patients (downward comparison). Relationship Satisfaction

Yet another moderator of the impact of comparisons of various types may be level of relationship satisfaction. Buunk et al (1990) found that people with high levels of marital dissatisfaction reported more frequently feeling negatively when they compared themselves with couples who had better marriages, and to a lesser extent when they compared with worse marriages than did people with low levels of marital dissatisfaction. Also, marital dissatisfaction had an effect on the prevalence of downward comparisons, which resulted in positive affect. People in happy marriages reported more frequently feeling positively in response to downward comparisons than those whose marriages were less satisfying. Marital dissatisfaction did not influence the prevalence with which positive affect upward comparisons were made. However past research has shown that people with high levels of self esteem are better able than their low self-esteem counterparts to deflect the threat of upward social comparisons and highlight their constructive uses for self-assessment (Collins, 1996; Mussweiler, Gabriel & Bodenhausen, 2000). Since past research has shown a relation between self-esteem and relationship satisfaction (Cramer, 2003; Eldridge & Gilbert, 1990; Hendrick, Hendrick & Adler, 1988), we are hesitant to reject the notion that relationship satisfaction can influence the level of positive affect one experiences in one's relationship across various comparison standards.

Therefore, we predicted, based on our findings from Study I as well as the findings of past research, that participants would feel most positively about the love in their romantic relationship when asked to make downward social, temporal past or previous relationship comparisons or upward temporal future comparisons, and when they perceive high control over the love in their relationship or are highly satisfied with their current relationship. Conversely, we expected that participants would feel least positively about the love in their romantic relationship when asked to make upward social, temporal past and previous relationship comparisons or downward temporal future comparisons, and when they perceive low control over the level of love in their relationship or when they are highly dissatisfied with their current relationship.

In addition, when asked to report the frequency with which they make positive and negative affect comparisons of all directions, we expected that participants would report more downward social, temporal past and previous relationship comparisons and more upward temporal future comparisons. Finally, we expected that when participants perceived high control or high relationship satisfaction, they would report that more of these enhancing comparisons resulted in positive affect than negative affect than when they perceived low control or low satisfaction. We also expected participants to report fewer upward social, temporal past and previous relationship comparisons and downward temporal future comparisons. Also, we expected that when participants perceived low control or low relationship satisfaction, they would report that more of these threatening comparisons resulted in negative affect than positive affect versus when they perceived high control or high relationship satisfaction.

Before conducting the second study, we conducted a pre-test in order to select the relationship attribute which would be the focus of participants' relationship appraisals in this study. The purpose of this pre-test was to select a relationship attribute for which perceived control could be effectively manipulated. Therefore, in this pre-test, participants were asked to indicate how much they believed a variety of different relationship attributes (love, satisfaction, commitment, closeness, common interests, conflict, passion, physical attractiveness of one's relationship partner, jealousy, trust, communication, fulfillment, mutual understanding, honesty, supportiveness, affection, romance and mutual respect) could be controlled on an 11-point scale (0= not at all controllable to 10= extremely controllable). We hoped to find an attribute that participants tended to rate towards the midpoint of the scale, indicating that participants did not consider that particular attribute to be overwhelmingly controllable or uncontrollable. Results of this pre-test indicated that the mean for the attribute of love was closer to the mid-point of the scale (M(SD)) = 6.16(1.97)) than was any other attribute on the list. Therefore, we concluded that love would be the most appropriate attribute to use in Study 2.

#### Study 2: Main Experiment Method

## **Participants**

Participants in this study were 128 undergraduate psychology students at Wilfrid

Laurier University, who participated for course credit and who, at the time, were

currently involved in romantic dating relationships and had been involved in the same

relationship for a minimum of three months. Participants were recruited through the Wilfrid Laurier University online participant pool.

#### Independent Variables

Relationship satisfaction measure. The first measure used in this study was the 8item Buunk (1990) relationship satisfaction scale (Cronbach's alpha = .87). Five of the items refer to negative emotions, behaviours and experiences, such as "My partner irritates me". Three of the items refer to positive emotions, behaviours and experiences, such as "Things are going well between us". Participants rated their relationship from 1 (never) to 5 (very often) (Appendix H). We chose to directly measure relationship satisfaction rather than manipulate it for several reasons. First, there are obvious ethical concerns that come with trying to convince people that they are not satisfied with their current relationship. Second, it is difficult to meaningfully alter one's level of satisfaction. In contrast, it may be less ethically problematic to manipulate perceived control, which is merely a belief about one particular relationship aspect, rather than a core assessment of one's relationship such as one's level of satisfaction. Therefore, any effects of a manipulation of perceived control are more likely to be easily dispelled through debriefing. Conversely, if we were to attempt to alter participants' level of relationship satisfaction, there is the possibility that the negative manipulation could lead participants to actively retrieve other negative aspects of their relationship as well, which may be considerably more difficult to dispel through debriefing. In addition to the ethical considerations, we suggest that a manipulation of perceived control may be easier to carry out than a manipulation of relationship satisfaction. Participants' beliefs about the controllability of love may be less certain and more moderate than their feelings of

satisfaction; hence, they may be more susceptible to having their controllability belief swayed one way or the other.

Perceived control over love manipulation. In this study, we attempted to manipulate the level of control participants felt they had over the love in their current relationship. We decided to use a manipulation, in order to measure the causal effects of controllability on participants' relationship appraisals and to control for possible other personality variables that may have an effect on perceived controllability. Perceived control was manipulated by presenting participants with a mock abstract of previous research that claimed either that a majority of people experience having high control over love, or experience low control over love in their relationship (Appendix I). After completing the manipulation task, participants were asked to rate the amount of control they perceived over the level of love in their current relationship on an 11-point scale ranging from 0 (no control at all) to 10 (extreme control). This scale was used as a manipulation check, as well as an individual difference measure of controllability in the event that the manipulation task was proven to be unsuccessful. In addition, participants rated the extent to which they considered love to be a type of public information or privileged information on an 11-point scale, with higher numbers indicating a higher perceived level of privileged information<sup>5</sup>. Next, participants rated the perceived importance of love in their relationship on an 11-point scale from 0 (not at all important) to 10 (extremely important)<sup>6</sup>. Perceived control, public/privileged and importance ratings were measured once again at the end of the questionnaire (Appendix J). This was done in

<sup>&</sup>lt;sup>5</sup> These public/privileged analyses did not reveal any meaningful or novel pattern of results. Therefore, they will not be discussed further.

order to investigate whether or not participants would alter these perceptions after being confronted with various types of superior, inferior and equal comparison information<sup>7</sup>.

Comparison type groups. Participants were randomly assigned to one of the four comparison type group conditions (social comparison, temporal past comparison, temporal future comparison or previous relationship comparison).

Demographic information. Before the main dependent variables, participants were asked to provide some demographic information about themselves, including their age, gender, amount of time (in months) they had been romantically involved with their current romantic partner, the number of previous relationships they have had in the past and whether they or their former partner initiated the break-up of these previous relationships (Appendix K).<sup>8</sup>

Comparison direction. Participants were asked to generate upward, downward and same-level comparison targets of their assigned comparison type. Comparison direction served as a within-subjects independent variable for the comparison impact and self-report relationship comparison analyses, and was included in our main dependent variables questionnaire, which will be further discussed in the next section.

Main dependent variables. The main dependent variables in this study were presented in a multi-part questionnaire which measured the actual effects of each comparison direction on relationship appraisals, as well as participants' self-report

<sup>&</sup>lt;sup>6</sup> These importance analyses did not reveal any meaningful or novel patterns of results. Therefore, they will not be discussed further.

<sup>&</sup>lt;sup>7</sup> No relevant change in perceived control, public/privileged or importance was revealed. Therefore these analyses will not be discussed further.

measures of the frequencies with which they made positive and negative affect comparisons (i.e., comparisons which produced a positive or negative affective response) of each direction for each comparison type. First, the actual effects of each comparison direction on relationship appraisals were measured by asking participants to think about each of the three comparison directions: upward, downward and same-level; for whichever comparison type they had been assigned to consider (independent variables). For example, in the social comparison group, participants were asked to think about a relationship among their peers that they felt was superior, inferior and equal to their own. Participants were asked how each of these particular standards made them feel about their current relationship's level of love on an 11-point scale (0 =very badly to 10= very good). Next, participants were asked to rate how similar they perceived each comparison target to be to their current relationship on an 11-point scale (0 = not at all similar to 10= extremely similar). Next, participants were asked to rate how familiar they were with the social comparison target (how many months they had known the target couple); or the temporal distance in months of each comparison target (temporal past, temporal future and previous relationship groups)<sup>9</sup>. (Appendix L). The order in which participants were asked to make comparisons of each direction was counter-balanced throughout the entire questionnaire.

The second part of the questionnaire measured participants' self-reports of the prevalence with which they made comparisons of each direction resulting in positive and negative affect. First, participants were asked to read a mock description of previous

<sup>&</sup>lt;sup>8</sup> This demographic information was investigated as a source of potential secondary moderators. However, analyses did not reveal any significant moderating effects.

research explaining how comparisons can elicit either positive or negative affect. Next, participants were asked, while considering all the possible information they consider when assessing their relationship, to rate the frequency with which they made upward, downward and same-level comparisons of their assigned comparison type that resulted in positive affect, as well as those that resulted in negative affect on an 11-point scale ranging from 0 (never) to 10 (very often). For example, participants were asked to rate how often they made downward comparisons that make them feel good about the love in their relationship, as well as how often they made downward comparisons that made them feel bad about their relationship. The order in which participants were asked to report the frequency with which they made positive and negative affect comparisons was counterbalanced throughout the questionnaire. Following this, participants provided an example of a comparison target of each direction which resulted in positive affect, and a target of each direction which resulted in negative affect. These examples were collected in order for us to investigate whether or not certain comparison targets of each type and direction were more likely to encourage negative affect or positive affect.

#### Procedure

The experimental sessions began by having participants meet in groups of five to twenty people. As in Study1, participants were then instructed that the present study was being done to investigate the ways in which university students assess their current romantic relationships, that all the information they provided was anonymous and that they had the option of removing themselves from the experimental session at any time

<sup>&</sup>lt;sup>9</sup> No relevant findings were revealed in regards to temporal distance/familiarity with social comparison target. Therefore, these analyses will not be discussed further.

they no longer felt comfortable participating. Informed consent was then obtained from each participant and the actual experimental procedure began.

Participants were then given the previously described measures presented in the order in which they were to complete them. First, participants completed the Buunk (1990) relationship satisfaction scale. Next, participants completed the principal questionnaire, which asked them to provide their demographic information, carry out the trait controllability manipulation task, rate the controllability, level of public/privileged information and importance of love, complete the dependent variable measures for each comparison direction and finally rate the controllability, level of public/privileged information and importance of love once again. Once participants completed all the measures, they were fully debriefed about the true aims of the experiment.

## Study 2: Results and Discussion

## Manipulated Level of Control

Manipulation check. A 4 (Comparison Type: social vs. temporal past vs. temporal future vs. previous relationship) x 2 (Manipulated Level of Control: control vs. no control) univariate ANOVA, with participants' rating of perceived control as the dependent variable, revealed no significant main effect for manipulated level of control, F(1, 120) = 2.17, p = .14 or significant interaction between comparison type and manipulated level of control, F(3, 120) = .24, p = .87, indicating no significant differences in perceived control between participants who received the high control and low control manipulations across all comparison type groups. Participants in both experimental groups rated the control they perceived over love towards the mid-point of the scale (Ms(SDs) = high control: 5.03 (2.46), low control: 5.67 (2.49) respectively),

suggesting that neither group perceived the love in their relationship as being overwhelmingly controllable nor uncontrollable. It is possible that our manipulation was simply ineffective or unbelievable. Alternatively, perhaps the manipulation check simply failed to detect the effect of the manipulation. Our manipulation check was a one-item measure of perceived controllability, which may not have been a very reliable measure. Perhaps a more detailed, reliable, multiple-item manipulation check would have been more sensitive.

Comparison impact. To investigate the moderating effects of manipulated level of control on the impact that comparisons of various types and directions had on participants' current relationship appraisals, a 4 (Comparison Type: social comparison vs. temporal past comparison vs. temporal future comparison vs. previous relationship comparison) x 3 (Comparison Direction: upward vs. downward vs. same-level) x 2 (Manipulated Level of Control: control vs. no control) repeated measures mixed ANOVA was conducted on the comparison impact data, with comparison type and manipulated level of control as between-subject variables, and comparison direction as the within subject variable. A significant comparison direction main effect was found, F(2, 192) =4.38, p = .01. This main effect was qualified by a significant Comparison Type x Comparison Direction interaction, F(6, 192) = 5.65, p < .0001. However, the Comparison Type x Comparison Direction x Manipulated Level of Control interaction did not reach significance, F(6, 192) = .89, p = .50. To explore the Comparison Type x Comparison Direction interaction, repeated measures ANOVAs, with comparison direction as the repeated variable, were conducted for each comparison type. Significant comparison direction effects were found for all comparison types,  $Fs \ge 3.23$ ,  $ps \le .05$ ,

with the exception of previous relationship comparisons, F(2, 34) = 1.23, p = .30. As Table 12 indicates, participants felt more positively about the love in their current relationship when they compared to both inferior and equal relationships among their peers than when they compared to superior relationships among their peers, ts > 2.11, ps < .04. As predicted, comparison to inferior relationships among one's peers enhances the way one feels about one's current romantic relationship. However, contrary to our predictions, one also appears to feel just as positively about the love in one's relationship when one feels that one's relationship is measuring up to one's peers. Finally, one appears to feel most threatened when faced with another relationship that is perceived as being superior to one's own. These findings also support our interpretation of the reported frequency of upward and downward social comparisons in Study1- that the greater prevalence of downward than upward social comparisons reflects relationship enhancement goals.

Contrary to our predictions, participants felt more positively about the level of love in their current relationship when they were asked to draw comparisons to both superior and equal points in their relationship's past than when they were asked to draw comparisons to inferior points in their relationship's past, ts > 3.31,  $ps < .003^{11}$ . This

<sup>&</sup>lt;sup>10</sup> When asked to make downward social comparisons, 90.3% of participants chose to draw comparisons to inferior relationships among their friends. The remaining 9.7% chose to draw comparisons to their siblings' inferior relationships. When asked to make upward social comparisons, 64.5% of participants chose to draw comparisons to superior relationships among their friends followed by their siblings' relationships (19.4%), their classmates' relationships (9.7%) and their parents' relationship (3.2%). When asked to draw same-level comparisons, the majority of participants chose to draw comparisons to equal relationships among their friends (80.6%) followed by their siblings' relationships (12.9%) and their classmates' relationships (6.5%).

When asked to draw comparisons to superior points in their relationship's past, the majority of participants chose to compare to the recent past (28.1%) followed by both the beginning and midpoint of the relationship (25% each). When asked to draw comparisons to inferior points in their relationships past, the majority of participants chose to compare to the start of their relationship (46.9%), followed by the relationship's midpoint (34.4%) and the recent past (12.5%). When asked to draw comparisons to equal

finding may suggest that comparisons to superior points in one's relationship's past provide one with a sense of hope that "history will repeat itself" and the love in one's relationship will once again obtain that previous superior standing. Comparing to a similar past appears to result in a positive response, perhaps because many of our participants may be in "the honeymoon phase" of their short-term relationships, resulting in a consistent feeling of high satisfaction throughout their relationship. Contrary to our predictions, comparisons to inferior points in one's relationship's past led to the least positive current relationship appraisals. This finding suggests that one is more inspired by the hope that the love in one's relationship may once again "reach the top of the mountain" and obtain their once superior standing. This suggestion contradicts our earlier speculation that people enjoy perceiving improvement in their relationship over time. It is possible that perceiving improvement over time is ineffective, at least for some people, as it may lead them to worry about the love in their relationship declining to its prior inferior standing.

Although we initially predicted that people would feel best after comparing specifically to superior future points, participants felt more positively about the level of love in their current relationship when they compared to *either* equal or superior points in their relationship's future, than when they compared to inferior points in their relationship's future, ts > 2.24, ps < .03. This finding suggests that, people prefer to

points in their relationship's past, the majority of participants chose to compare to the recent past (40.6%) followed by the midpoint (18.8%) and the beginning of the relationship (15.6%).

<sup>&</sup>lt;sup>12</sup> When asked to draw comparisons to superior points in their relationship's future, the majority of participants chose to compare to points in their relationships immediate future (operationally defined as within their current school year) (28.1%), followed by the moderately distant future (operationally defined as beyond their current school year but still during their university career) (24.9%) and the distant future (operationally defined as beyond their university career) (3.1%). When asked to draw comparisons to inferior points in their relationships' future, the majority of participants compared to points in the

perceive the love in their relationship as either developing and improving over time or as a strength which will remain stable over time. In contrast comparisons to inferior points in one's relationship's future suggest that love will decline over time, resulting in the least positive current relationship appraisals.

Contrary to our predictions, participants felt equally positively about the love in their relationship when making previous relationship comparisons of all directions.

Although Study I indicated that people are less inclined to compare to equal and superior past relationships than to inferior relationships, it appears that people can find reasons to feel good about all three directions of previous relationship comparison. Perhaps individuals can be inspired by their own past superior abilities or remembered relationship strengths that can be attained in their current relationship. At the same time, it may be gratifying to know that one has consistently been a good relationship partner, and also enhancing to recall inferior relationships that call to mind the strengths of the current relationship.

Table 12

Mean Impact Ratings of Comparisons of each Type and Direction on Current

Relationship Appraisals

	Comparison Types					
	Social	Temporal Past	Temporal Future	Previous Relationship		
Directions						
Upward	7.35 <sub>a</sub>	8.33 <sub>a</sub>	8.43 <sub>a</sub>	8.56 <sub>a</sub>		
	(2.42)	(1.73)	(1.83)	(1.82)		
Downward	8.06 <sub>b</sub>	6.93 <sub>b</sub>	7.63 <sub>b</sub>	8.22a		
	(2.05)	(2.53)	(2.57)	(1.96)		
Same-Level	7.81 <sub>b</sub>	8.15 <sub>a</sub>	8.53 <sub>a</sub>	8.33 <sub>a</sub>		
	(2.58)	(1.97)	(1.74)	(1.91)		

*Note*. Subscripts indicate significant differences in means within columns. Standard deviations are in parentheses.

Perceived similarity. To investigate the moderating effects of manipulated level of control on perceived similarity between one's current romantic relationship and comparison targets of various types and direction, a 4 (Comparison Type: social comparison vs. temporal past comparison vs. temporal future comparison vs. previous relationship comparison) x 3 (Comparison Direction: upward vs. downward vs. samelevel) x 2 (Manipulated Level of Control: control vs. no control) mixed ANOVA was conducted on the perceived similarity data. A significant comparison direction main effect, F(2, 178) = 43.27, p < 0001, indicated that, overall, participants felt the love in

their current relationship was most similar to same-level comparison targets, followed by upward and then by downward comparison targets, ts > 4.14, ps < .0001 (Ms: 7.11 (2.52), 6.08 (2.81) and 4.18 (3.33) respectively). A significant comparison type main effect, F(3, 89) = 27.57, p < .0001, indicated that, overall, participants felt that the love in their current relationship was most similar to that of their temporal future comparison targets followed by temporal past comparison targets, then by social comparison targets and finally previous relationship comparison targets, ts > 2.90, ps < .005 (Ms: 7.93 (1.70), 6.77 (1.70), 4.98 (1.70) and 3.17 (1.80) respectively).

These main effects were qualified by a significant Comparison Type x Comparison Direction interaction, F(6, 178) = 3.86, p = .001, as well as a significant Comparison Type x Comparison Direction x Manipulated Level of Control interaction, F (6, 178) = 2.29, p = .04. To investigate the 3-way interaction, subsequent 3 (Comparison Direction: upward vs. downward vs. same-level) x 2 (Manipulated Level of Control: control vs. no control) mixed ANOVAs were conducted for each comparison type. A significant or marginal comparison direction main effect was found for all comparison types,  $F_s > 2.85$ ,  $p_s < .08$ . Subsequent t-test analyses indicated that participants felt that the love in their current relationship was most similar to same-level social comparison targets, followed by upward social comparison targets and finally by downward social comparison targets, ts > 3.71, ps < .001 (Ms (SDs) = 7.28 (2.41), 5.27 (3.02), and 2.39 (2.23) respectively. Participants felt that the love in their relationship was more similar to same-level temporal future comparison targets than upward and downward temporal future comparison targets, ts > 2.16, ps < .04. (Ms (SDs) = 8.70 (1.40), 7.86 (2.42) and 7.01 (2.47) respectively). Participants felt that the love in their current romantic

relationship was more similar to same-level and upward temporal past, ts > 3.93, ps < .0001 and previous relationship comparison targets, ts > 1.90, ps < .08, than to downward comparison targets of both types (Ms (SDs)= temporal past comparison: 8.14 (2.21), 7.39 (1.78) and 4.69 (3.49) respectively, previous relationship comparison: 4.50 (2.84), 3.81 (2.73) and 2.19 (2.18) respectively). A significant manipulated level of control main effect was found for previous relationship comparisons, F (1, 10) = 4.81, p = .05, but not for any other comparison type, Fs < .35, ps > .56. High control participants felt that their current romantic relationship was more similar to previous relationship comparison targets, than did low control participants (Ms(SDs)= 4.25 (1.61) and 2.08 (1.61) respectively). This finding suggests that if one feels that the love in one's relationship is within one's control, one may be more confident that one's current relationship can replicate or surpass the strengths, while avoiding the weaknesses of one's failed relationships. Therefore, one may be more comfortable drawing similarities between one's current relationship and one's previous relationship.

Comparison direction and manipulated level of control interacted significantly for temporal future comparisons, F(2, 54) = 4.30, p = .02, but not for any other comparison type, Fs < 2.23, ps > .12. As Table 13 indicates, low control participants reported feeling that their current relationship was marginally more similar to same-level temporal future comparison targets than to either downward or upward temporal future comparison targets, ts > 1.91, ps < .08. Conversely, high control participants reported feeling that their current relationship was more similar to upward and same-level temporal future comparison targets than to downward temporal future comparison targets than to downward temporal future comparison targets, ts > 2.62, ps < .02.

Table 13

Mean Similarity Ratings for each Temporal Future Comparison Direction for High

Control and Low Control Groups

	Comparison Direction				
And the segment of the second		Upward	Downward	Same-level	
	High Control	8.57	6.43 <sub>ba</sub>	8.71 <sub>aa</sub>	
Manipulated Level		(1.45)	(2.85)	(.91)	
Of Control					
	Low Control	7.47 <sub>aa</sub>	7.80 <sub>an</sub>	8.60 <sub>ba</sub>	
		(2.45)	(1.93)	(1.76)	

*Note.* First set of subscripts show significant differences in means within rows. Second set of subscripts show significant differences in means within columns. Standard deviations are in parentheses.

This finding suggests that when one feels that the love in one's relationship is within one's control, one may be more comfortable drawing similarities to an elevated vision one has of love in the future as well as a vision of the future which is constant with the love in one's relationship at present. In contrast, when one feels that the love in one's relationship is beyond one's control, one may be less comfortable drawing similarities between the love in one's relationship in the present and a superior, hypothetical future and more comfortable drawing similarities to a future which will remain constant with the love in their relationship at present.

Self-report relationship comparison frequencies. To investigate the moderating effects of manipulated level of control on the frequency with which participants reported

making positive and negative affect comparisons of various types and directions, a 4 (Comparison Type: social comparison vs. temporal past comparison vs. temporal future comparison vs. previous relationship comparison) x 3 (Comparison Direction: upward vs. downward vs. same-level) x 2 (Affect: positive vs. negative) x 2 (Manipulated Level of Control: control vs. no control) mixed ANOVA was conducted on the self-report data. First, a significant comparison direction main effect, F(2, 206) = 4.53, p = .01, indicated that overall, participants reported significantly greater frequencies of downward comparisons and smaller frequencies of both upward and same-level comparisons, ts > 1.99, ps < .05 (Ms (SDs) = 4.22 (2.32), 3.66 (2.00) and 3.58 (2.21) respectively). Second, a significant comparison type main effect, F(3, 103) = 5.91, p = .001, indicated that participants reported greater frequencies of social, temporal past and temporal future comparisons than previous relationship comparisons, ts > 1.91, ps < .06 (Ms (SDs) = 4.06 (1.88), 3.98 (2.07), 4.65 (1.76) and 2.86 (2.53) respectively). Third, a significant affect main effect, F(1, 103) = 72.34, p < .0001, indicated that participants, overall, reported greater frequencies of comparisons which resulted in positive affect than negative affect (Ms (SDs) = 4.81 (2.16) and 2.82 (1.99) respectively). These main effects were qualified by the following significant interactions: Comparison Type x Comparison Direction, F (6, 206) = 4.44, p < .0001, Comparison Direction x Affect, F(2, 206) = 6.39, p = .002and, finally Comparison Direction x Affect x Comparison type, F(6, 206) = 4.95, p < 6.0001. However, the 4-way interaction did not reach significance, F(6, 206) = .54, p =.78. To investigate the 3-way interaction, subsequent 3 (Comparison Direction: upward vs. downward vs. same-level) x 2 (Affect: positive vs. negative) mixed ANOVAs were conducted for each comparison type. A significant comparison direction main effect was

found for temporal past and previous relationship comparisons, Fs > 4.09, ps < .02, but not for any other comparison type, Fs < 1.71, ps > .19. T-test analyses revealed that participants reported making significantly more downward temporal past comparisons than upward or same-level temporal past comparisons (Ms (SDs) = 4.60 (2.33), 3.44 (1.87) and 3.41(2.03) respectively), ts > 2.38, ps < .02.

This finding supports past research, which has suggested that people perceive improvement in their romantic relationship over time (Karney & Coombs, 2000; Karney & Frye, 2002), resulting in a greater preference for downward temporal past comparisons. This finding also supports our open-ended narrative findings from Study1, which revealed that participants made significantly more downward temporal past comparisons than comparisons of any other direction, but it contradicts our closed-ended findings, which revealed an equal preference for temporal past comparisons of all directions.

This contradiction is somewhat unclear, although there are a number of methodological factors which may have contributed to it. In Study1, comparison type was a within-subjects variable; that is, people reported comparisons of each direction for all four comparison types. Conversely, in Study 2, comparison type was randomly assigned between-subjects, hence participants in the relevant condition reported only temporal comparisons. Conceivably, thinking about temporal comparisons in the context of the other comparison types led people to retrieve comparisons of different directions in Study1 than did the sole focus on temporal comparisons in Study 2. In addition, Study 2 distinguished between positive and negative affect comparisons, whereas Study1 did not. It may be that the more specific affect questions in Study 2 highlighted temporal

comparisons which might not have otherwise come to mind, such as positive affect upward and negative affect downward comparisons. Perhaps these additional memory cues influenced the proportion of downward comparisons retrieved. Finally, it is possible that studies 1 and 2 were comprised of different participant samples. If, for example, Study 2 contained more participants in longer, more stable relationships and fewer participants in short-term "honeymoon" relationships, this could help to account for the difference in temporal comparison direction. However, because we did not ask about relationship length in Study1, this possibility cannot be assessed. Further investigation is required to establish the strength of these possible speculative explanations.

It should also be noted that conflicting results were found between participants' temporal past direction preferences in the impact and self-report sections of Study 2.

Although participants reported more frequent downward temporal past comparisons, it was found that upward temporal past comparisons actually had the most positive impact on current relationship appraisals. Perhaps superior points in one's relationship's past were experienced as most inspiring, but inferior points in one's relationship's past may have been most plentiful and readily accessible.

Participants also reported significantly more downward previous relationship comparisons than upward and same-level previous relationship comparisons (Ms(SDs)= 4.02 (2.18), 1.85 (1.59) and 2.31 (2.68) respectively), ts > 3.40, ps < .002. This finding replicates our finding from Study1, thus adding further support to the notion that people generally perceive their present relationship as being superior to previous relationships they have had. Next, a significant affect main effect was found for all comparison types, Fs > 7.44, ps < .01. Participants reported significantly more frequent positive affect

comparisons than negative affect comparisons of all types (*Ms(SDs)* = social comparison: 5.32 (2.07) and 2.86 (1.49) respectively, temporal past comparison: 5.04 (1.94) and 2.59 (2.05) respectively, temporal future comparison: 5.35 (2.39) and 3.93 (2.63) respectively, previous relationship comparison: 3.53 (2.23) and 1.92 (1.44) respectively).

These main effects were qualified by significant Comparison Direction x Affect interactions found for social comparisons, temporal future comparisons and previous relationship comparisons, Fs > 3.14, ps < .05, but not for temporal past comparisons, F (2, 52) = 2.39, p = .10. As Table 14 indicates, participants reported greater frequencies of positive than negative affect downward and same-level social comparisons, ts > 4.36, ps < .0001. Participants reported equal frequencies of positive and negative affect upward social comparisons, t (31) = 1.48, p = .15.

Table 14

Mean Positive and Negative Affect Social Comparisons across each Comparison

Direction

			Comparison Direction		
		<u>Upward</u>	Downward	Same-Level	
	Positive	4.94 <sub>aa</sub>	5.5 Maa	5.52aa	
Affect		(2.46)	(2.77)	(2.74)	
	Negative	3.82 <sub>aa</sub>	2.52 <sub>bb</sub>	2.25 <sub>bb</sub>	
		(3.07)	(2.88)	(2.26)	

*Note.* First set of subscripts show significant differences in means within rows. Second set of subscripts show significant differences in means within columns. Standard deviations are in parentheses.

These findings partially support our speculation from Study 1 that participants may prefer to compare to inferior relationships among their peers because such comparisons allow them to feel positively about their current relationship. However, somewhat contrary to our predictions in Study 2, participants also appear to feel just as positively about the love in their relationship when they feel that their relationship is measuring up to their peers. In contrast, participants appear to be more torn over whether or not comparisons to superior relationships among their peers are enhancing or threatening. On the one hand, upward comparisons make their relationship pale in comparison; on the other hand, superior relationships can be an inspiring reminder of what one might attain.

As Table 15 indicates, participants reported significantly more positive than negative affect upward and same-level temporal future comparisons, ts > 3.11, ps < .004. Participants reported equal frequencies of positive and negative affect downward temporal future comparisons, t(30) < 1.00.

Table 15

Mean Positive and Negative Affect Temporal Future Comparisons across each

Comparison Direction

		Comparison Direction				
		Upward	Downward	Same-Level		
	Positive	6.04 <sub>aa</sub>	4.28 <sub>6a</sub>	5.75 <sub>aa</sub>		
Affect		(3.10)	(3.01)	(3.00)		
	Negative	3.90 <sub>ab</sub>	4.20 <sub>aa</sub>	3.68 <sub>ab</sub>		
		(3.06)	(3.10)	(2.97)		

*Note.* First set of subscripts show significant differences in means within rows. Second set of subscripts show significant differences in means within columns. Standard deviations are in parentheses.

These findings partly support our speculation from Study 1 that participants might prefer to compare to superior points in their relationship's future because they make them feel positively about the improving state of their current relationship. However, somewhat contrary to our predictions in Study 2, participants also appear to feel just as positively about the love in their relationship when they feel that it will remain stable over time. In contrast, participants appear to be in conflict over whether or not comparisons to inferior points in their relationship's future are enhancing or threatening

comparisons to make. It appears that people are torn between whether to "live for the moment" and feel grateful that the love in their relationship presently is at its peak, or to feel threatened that their love will only decline over time.

As Table 16 indicates, participants reported significantly more positive than negative affect downward and same-level previous relationship comparisons, ts > 2.72, ps < .01. Participants reported equal frequencies of upward positive and negative affect previous relationship comparisons, t(22) = .60, p = .55.

Table 16

Mean Positive and Negative Affect Previous Relationship Comparisons across each

Comparison Direction

	muyaday, e gaal vaqorsiyin ooziri u qordoq taaying qaru day isa saada	Comparison Direction			z
	- Chapadalanda ininka (1988) kalanda arabaha arabaha (1984) kapanda yanak (1984) kabaha arab	Upward	Downward	Same-Level	2
	Positive	1.58 <sub>sa</sub>	6.02 <sub>ba</sub>	2.99 <sub>aa</sub>	
Affect		(2.59)	(2.84)	(3.64)	
	Negative	2.12	2.02 <sub>ab</sub>	1.62 <sub>ab</sub>	
		(2.87)	(2.49)	(2.23)	

Note. First set of subscripts show significant differences in means within rows. Second set of subscripts show significant differences in means within columns. Standard deviations are in parentheses.

These findings support the notion that participants prefer to compare to inferior previous relationships to feel positively about the state of their current relationship.

Participants also appear to feel positively about the love in their relationship when they feel that their relationship is measuring up to their past romances, although to a lesser

extent. In contrast, participants appear to be more torn over whether or not comparisons to superior previous relationships are enhancing or threatening comparisons to make. On the one hand, upward previous relationship comparisons can make one's current relationship pale in comparison; on the other hand, comparisons to superior previous relationships can be an inspiring reminder of one's past superior abilities as a relationship partner or remembered past relationship strengths that one can strive to attain in regards to one's current relationship.

Level of Perceived Control (Scale Measure)

No relevant level of perceived control findings were revealed for the perceived similarity and self-report relationship appraisal analyses. Therefore, those analyses will not be discussed in this section.

Comparison impact. Because our manipulation of controllability appeared to be ineffective in moderating the impact of various comparisons on relationship appraisals, we conducted analyses examining the moderating effects of the individual difference measure of perceived control on the impact of various comparisons on current relationship appraisals. First, a median split was conducted on participants' ratings of perceived control over love in their current romantic relationship in order to assign participants to high and low perceived control groups. Next, a 4 (Comparison Type: social vs. temporal past vs. temporal future vs. previous relationship) x 3 (Comparison Direction: upward vs. downward vs. same-level) x 2 (Level of Perceived Control: high vs. low) mixed repeated measures ANOVA was conducted on the comparison impact data. Comparison direction and Comparison Direction x Comparison Type effects were the same as in the initial analyses. These effects were qualified by a marginally

significant Comparison Type x Comparison Direction x Perceived Level of Control interaction, F(6, 192) = 2.07, p = .06. Subsequent 3 (Comparison Direction: upward vs. downward vs. same-level) x 2 (Level of Perceived Control: high vs. low) mixed ANOVAs were conducted for each comparison type. Comparison direction effects were the same as in the Manipulated Level of Control analyses. No perceived controllability main effects were found for any comparison type, Fs < 2.89, ps > .10.

A significant Comparison Direction x Level of Perceived Control interaction was found for temporal past comparisons, F(2, 48) = 4.07, p = .02, but not for the remaining comparison types, Fs < 1.19, ps > .31. As Table 17 indicates, participants who perceived high levels of control over the love in their current relationship felt equally positively when making temporal past comparisons of all directions, ts < 1.74, ps > .10. Conversely, participants who perceived low control over the love in their current relationship felt significantly less positively about the level of love in their current relationship when making downward temporal past comparisons than any other comparison direction, ts > 2.97, ps < .01.

Table 17

Mean Impact Scores for each Temporal Past Comparison Directions among High and

Low Perceived Controllability Groups

		Comparison Direction		
	akkit kuntaannattassu varinnattiinistii karinnin ka kila kila elimikan kinni vasa vähin kaik	Upward	Downward	Same-Level
	Low Control	8.082	5.67 <sub>ba</sub>	7.75 <sub>aa</sub>
Level of Perceived		(2.02)	(2.50)	(2.34)
Control				
	High Control	8.50 <sub>aa</sub>	8.00 <sub>ab</sub>	8.50 <sub>aa</sub>
		(1.65)	(2.08)	(1.61)

Note. First set of subscripts show significant differences in means within rows. Second set of subscripts show marginal differences in means within columns. Standard deviations are in parentheses.

Perceived control over love only moderated the effects of temporal past comparison on current relationship appraisals. However, this moderation was in the opposite direction to what we had predicted. We had predicted that high control participants would feel most positively about the love in their current relationship when asked to make comparisons to inferior points in their relationship's past. Instead we found that when one perceives high control over the love in one's relationship, comparisons to any point in one's relationship's past, not just inferior points, can lead one to feel equally positively about the love in their current relationship. We had also predicted that low perceived control participants would feel least positively about the love in their relationship when they made upward temporal past comparisons. Instead, we

found that when little control over love is perceived, one may feel particularly threatened by comparisons to inferior points in one's relationships' past. The notion that the love in one's relationship may someday become as inferior as it was in the past appears to be particularly threatening when one feels vulnerable and unable to defend against such an occurrence. In contrast, when one perceives a high level of control over love, one may feel that one can prevent the love in one's relationship from ever being as inferior as the love in one's downward temporal past comparison targets. This finding relates to Lockwood's (2002) research which indicated that one's perceived inability to avoid an unwanted fate affected the impact that downward social comparisons had on one's self-evaluation. Lockwood found that downward social comparisons led to less positive self-evaluations when participants felt highly vulnerable to the fate of their inferior peer. In contrast, when participants perceived low vulnerability to a similar fate, downward comparisons resulted in more positive self-evaluations. The current finding suggests that similar processes may occur when people face temporal comparisons. Relationship Satisfaction Analyses

No relevant relationship satisfaction findings were revealed in the perceived similarity section. Therefore, those analyses will not be discussed in this section.

Comparison impact. To examine whether relationship satisfaction moderates the impact of comparisons of various types and directions on participants' current relationship appraisals, a median-split was conducted on participants' mean scores on the Buunk (1990) relationship satisfaction scale in order to assign participants to high and low satisfaction groups. A 4 (Comparison Type: social comparison vs. temporal past comparison vs. temporal future comparison vs. previous relationship comparison) x 3

(Comparison Direction: upward vs. downward vs. same-level) x 2 (Level of Relationship Satisfaction: high vs. low) mixed ANOVA was conducted. Comparison direction and Comparison Direction x Comparison Type effects were the same as in the initial analyses. Also, a significant Comparison Type x Relationship Satisfaction interaction was found, F(3, 96) = 4.28, p = .007. Finally, a marginal Comparison Type x Comparison Direction x Relationship Satisfaction interaction was found, F(6, 192) =1.92, p = .08. Subsequent 3 (Comparison Direction: upward vs. downward vs. samelevel) x 2 (Level of Relationship Satisfaction: high vs. low) mixed ANOVAS were conducted for each comparison type. Significant comparison direction main effects were the same as those found in the manipulated level of control analyses. Also, relationship satisfaction main effects were found for temporal future comparisons, and previous relationship comparisons, Fs > 4.82, ps < .04, but not for social comparisons or temporal past comparisons, Fs < 2.06, ps > 16. Highly satisfied participants felt significantly more positively about the love in their current relationship than dissatisfied participants when making temporal future comparisons (Ms(SDs)= 9.26 (2.34) and 7.25 (2.11) respectively). Conversely, dissatisfied participants felt significantly more positively about the love in their relationship than highly satisfied participants when making previous relationship comparisons (Ms(SDs)= 9.22 (2.33) and 7.52 (2.33) respectively). Finally, comparison direction and relationship satisfaction interacted significantly for temporal future comparisons, F(2, 54) = 3.20, p = .05, but not for any other comparison type, Fs < 1.11, ps > .34. As Table 18 indicates, highly satisfied participants felt equally positively when making temporal future comparisons of all directions, ts < 1.00, ps > .34.

In contrast, dissatisfied participants felt significantly worse when making downward temporal future comparisons than any other direction, ts > 2.17, ps < .05.

Table 18

Mean Impact Scores for each Temporal Future Comparison Direction across High and

Low Relationship Satisfaction Groups

		Comparison Direction				
		Upward	Downward	Same-Level		
	Low Satisfaction	7.69 <sub>aa</sub>	6.25 <sub>ba</sub>	7.81 <sub>aa</sub>		
Level of Relationship		(2.09)	(2.70)	(1.87)		
Satisfaction						
	High Satisfaction	9.31 <sub>ab</sub>	9.15 <sub>ab</sub>	9.31 <sub>ab</sub>		
		(1.03)	(1.14)	(1.18)		

Note. First set of subscripts show significant differences in means within rows. Second set of subscripts show differences in means within columns. Standard deviations are in parentheses.

This finding offers partial support to our hypothesis that relationship satisfaction would moderate the impact of various types of comparison information on current relationship appraisals. However, this predicted moderation was found only for temporal future comparisons. This finding suggests that, as we had predicted, comparisons to inferior points in one's relationship's future can have a negative impact on one's current relationship appraisal if one finds oneself unsatisfied with one's relationship in the present. People who are unsatisfied with their current romantic relationship appear to find the notion that the love in their relationship may further decline with time

particularly discouraging. When one is satisfied with one's current relationship, one appears to be able to find "a silver lining" with future comparisons of all directions, rather than just upward temporal future comparisons as we had initially predicted.

Self-report relationship comparison frequencies. To investigate the moderating effects of relationship satisfaction on participant's self-report relationship comparison frequencies, a 4 (Comparison Type: social comparison vs. temporal past comparison vs. temporal future comparison vs. previous relationship comparison) x 3 (Comparison Direction: upward vs. downward vs. same-level) x 2 (Affect: positive vs. negative) x 2 (Level of Relationship Satisfaction: high vs. low) mixed ANOVA was conducted. Comparison direction, comparison type and affect effects were the same as in the initial analyses. Also, a significant relationship satisfaction main effect was found, F(1, 103) =12.87, p = .001, indicating that, overall, dissatisfied participants reported a significantly greater frequency of relationship comparisons than did highly satisfied participants (Ms(SDs) = 4.41 (1.66)and 3.23 (1.60) respectively). This finding suggests that people who are dissatisfied with the state of their current relationship may possess a high level of uncertainty in regards to continuing the relationship. Festinger (1954) suggested that one's desire to compare to others is particularly strong when one is uncertain about one's abilities. In addition, Buunk et al. (1990) found that people who have high levels of marital uncertainty report more comparisons to the marriages of their peers than people who have low levels of marital uncertainty. This high level of relationship uncertainty may motivate one to seek various comparison standards to obtain an accurate assessment of their own relationship. In contrast, people who are highly satisfied with their relationship may feel more secure. As a result, they may not be as motivated to draw

comparisons to the relationships of their peers, to irrelevant previous relationships, or to track their relationship's improvement over time. This lack of interest in relationship comparisons may also allow one to avoid highlighting factors that may be perceived as threatening to the elevated opinion one has of one's relationship. These main effects were qualified by the following interactions: Affect x Comparison Type x Relationship Satisfaction, F(6, 206) = 3.80, p = .01, Comparison Direction x Affect x Comparison Type, F(6, 206) = 4.32, p < .0001, and Comparison Direction x Affect x Comparison Type x Relationship Satisfaction, F(6, 206) = 3.27, p = .004.

To investigate the 4-way interaction, subsequent 3 (Comparison Direction: upward vs. downward vs. same-level) x 2 (Affect: positive vs. negative) x 2 (Level of Relationship Satisfaction: high vs. low) mixed ANOVAs were conducted for each comparison type. Direction and affect main effects and their interaction effects were the same as in the initial analyses. A significant relationship satisfaction main effect was found for temporal past comparisons and temporal future comparisons, Fs > 5.75, ps < .02, but not for social comparisons or previous relationship comparisons, Fs < 1.31, ps > .26. Dissatisfied participants reported making temporal past and temporal future comparisons significantly more frequently than highly satisfied participants (Ms (SDs)== temporal past comparison: 4.93 (.74) and 3.26 (.88) respectively, temporal future comparison: 5.31 (1.93) and 3.57 (1.93) respectively). As suggested previously, people who are not satisfied with the state of their current romantic relationship may have a greater motivation to examine and predict their relationship's progress over time to evaluate their uncertain relationship standing.

Comparison Direction x Affect effects were the same as in the initial analyses. Significant Affect x Relationship Satisfaction interactions were found for temporal past and temporal future comparison, Fs > 4.91, ps < .04, but not for social or previous relationship comparison, Fs < 2.90, ps > .10. As Table 19 indicates, dissatisfied participants reported equal frequencies of positive and negative affect temporal past comparisons, t(11) = 1.43, p = .18. Conversely, highly satisfied participants reported significantly greater frequencies of positive than negative affect temporal past comparisons, t(18) = 5.62, p < .0001.

Table 19

Mean Positive and Negative Affect Temporal Past Comparison Frequencies across High and Low Relationship Satisfaction Groups

	Affect		
		Positive	Negative
	Low Satisfaction	5.50 <sub>aa</sub>	4.37 <sub>aa</sub>
Level of Relationship		(2.13)	(2.14)
Satisfaction			
	High Satisfaction	4.84 <sub>aa</sub>	1.67 <sub>bb</sub>
		(3.20)	(2.23)

*Note.* First set of subscripts show significant differences in means within rows. Second set of subscripts show significant differences in means within columns. Standard deviations are in parentheses.

As Table 20 indicates, dissatisfied participants reported equal frequencies of positive and negative affect temporal future comparisons, t(18) = 1.41, p = .18.

Conversely, highly satisfied participants reported significantly greater frequencies of positive than negative affect temporal future comparisons, t(12) = 4.59, p = .001.

Table 20

Mean Positive and Negative Affect Temporal Future Comparison Frequencies across

High and Low Relationship Satisfaction Groups

	Affect		
	Positive	Negative	
Low Satisfaction	5.57 <sub>aa</sub>	5.06 <sub>az</sub>	
Level of Relationship	(2.52)	(2.88)	
Satisfaction			
High Satisfaction	4.97 <sub>aa</sub>	2.17 <sub>bb</sub>	
	(3.43)	(2.39)	

*Note.* First set of subscripts show significant differences in means within rows. Second set of subscripts show significant differences in means within columns. Standard deviations are in parentheses.

These findings suggest that even though people who are highly satisfied with their current relationship generally report fewer temporal comparisons than do people who are dissatisfied, when these comparisons are made, they are overwhelmingly positive.

A significant Comparison Direction x Relationship Satisfaction interaction was found for temporal future comparisons, F(2, 54) = 8.61, p = .001, but not for any other comparison type, Fs < .628, ps > .54. As Table 21 indicates, dissatisfied participants reported equal frequencies of temporal future comparisons of all directions, ts < 1.37, ps > .19. In

contrast, highly satisfied participants reported greater frequencies of both upward and same-level than of downward temporal future comparisons, ts > 2.54, ps < .03.

Table 21

Mean Frequencies of Reported Temporal Future Comparison Directions across High

and Low Relationship Satisfaction Groups\_

	•	Comparison Direction		
		Upward	Downward	Same-Level
	Low Satisfaction	5.35 <sub>aa</sub>	5.59 <sub>aa</sub>	5.00 <sub>aa</sub>
Level of Relationship		(2.91)	(2.46)	(2.73)
Satisfaction				
	High Satisfaction	4.38 <sub>8a</sub>	2.08 <sub>bb</sub>	4.25 <sub>aa</sub>
		(3.01)	(2.57)	(3,16)

*Note.* First set of subscripts show significant differences in means within rows. Second set of subscripts show significant differences in means within columns. Standard deviations are in parentheses.

We had initially predicted that relationship satisfaction would moderate the frequency with which participants reported various forms of comparison information. However, this moderation occurred only for temporal future comparisons. It appears that when one is satisfied with one's current relationship one can better reap the relationship-enhancing benefits of upward and same-level temporal future comparisons, while avoiding the threat of downward temporal future comparisons.

Finally, a significant Comparison Direction x Affect x Relationship Satisfaction interaction was found for previous relationship comparisons, (2, 42) = 8.19, p = .001, but

not for any other comparison type, Fs < 1.84, p > .17. As Table 22 indicates, highly satisfied participants reported a greater frequency of downward than same level and finally upward positive affect previous relationship comparisons, ts > 2.49, ps < .02. Also, highly satisfied participants reported equal frequencies of negative affect previous relationship comparisons of all directions, ts < .97, ps > .35. Dissatisfied participants reported equal frequencies of positive affect previous relationship comparisons of all directions, ts < 1.78, ps > .11. Finally, dissatisfied participants reported greater frequencies of downward than both same-level and upward negative affect previous relationship comparisons, ts < 2.32, ps > .04.

Table 22

Mean Reported Frequencies of Positive and Negative Affect Previous Relationship

Comparisons of all Directions across High and Low Relationship Satisfaction Groups

			Comparison Direction			
		Upward	Downward	Same-Level		
	Affect					
	Positive	3.75 <sub>aaa</sub>	5.13aaa	4.00 <sub>aaa</sub>		
Low Satisfaction		(3.33)	(2.30)	(3.59)		
	Negative	$1.50_{ m aba}$	2.63 <sub>bba</sub>	1.88 <sub>aba</sub>		
		(1.75)	(2.26)	(1.64)		
	Positive	$.40_{\mathrm{aab}}$	6.47 <sub>baa</sub>	2.40 <sub>caa</sub>		
High Satisfaction		(.91)	(3.06)	(3.66)		
	Negative	2.70 <sub>aba</sub>	1.67 <sub>aba</sub>	**.88 <sub>aba</sub>		
		(3.11)	(2.61)	(2.53)		

Note. First set of subscripts show significant differences in means within rows. Second set of subscripts show significant differences between positive and negative affect scores within each level of relationship satisfaction. Third set of subscripts show significant differences in means between high and low relationship satisfaction groups within each level of affect. Standard deviations are in parentheses.

We had initially predicted that relationship satisfaction would moderate participants' reported use of positive and negative affect comparisons of various types and directions. However, this moderation was found only for previous relationship comparisons and was not entirely in the direction we had predicted. It appears that, as predicted, highly satisfied relationship partners are better able than dissatisfied

relationship partners to reap the relationship enhancing benefits of downward previous relationship comparisons. It is plausible that satisfied relationship partners are better able to recognize the love in their current relationship as being different from and superior to the love in their previous relationship. In contrast, dissatisfied relationship partners appear to be particularly threatened by comparisons to inferior previous relationships, rather than superior previous relationship comparisons as we had initially predicted.

Perhaps when dissatisfied individuals compare to an inferior previous relationship, they worry that the love in their current relationship could progress in the same downward trajectory as their failed relationship, resulting in negative affect. Therefore, dissatisfied relationship partners may worry that the love in their current relationship could progress in the same downward trajectory as their failed relationship, resulting in greater negative affect.

## Study 2: Conclusion

Study 2 demonstrates that the affective consequences of relationship comparisons of various types are not wholly dependent on direction, but also on how one interprets such information. Study 2 also identifies one's level of perceived control over love as well as relationship satisfaction as factors which affect the way that one interprets comparisons of various types and directions. However these moderation findings were not revealed across all comparisons and were not always in the predicted direction.

Study 2 extends our findings from Study1 in regards to people's beliefs about their preferences for various comparisons and how these comparisons affect their relationship appraisals, while also providing insight about the actual impact that comparisons of various types and directions have on people's current relationship appraisals.

However, Study 2 also has its limitations. First, our manipulation of perceived control over love may have been generally weak or ineffective. Participants in both experimental groups equally perceived moderate control over love. Also, contrary to our predictions, manipulated level of control did not moderate the impact of comparison information on current relationship appraisals, or participants' reported use of positive and negative affect comparison information. However, the manipulation did moderate perceived similarity towards temporal future comparison targets, which only provides weak evidence in regards to the effectiveness of the manipulation. However, it is also possible that the manipulation check may have failed to detect the effect of the manipulation. Our manipulation check was a one-item measure of perceived controllability, which may not have been a very reliable measure. Perhaps future research could incorporate a more detailed, reliable, multiple-item manipulation check.

Also, although relationship satisfaction and the individual difference measure of perceived control moderated the impact that various comparisons had on relationship appraisals as well as participants reported use of various relationship comparisons, we were unable to determine the direction of causality of these moderating variables. We cannot conclude whether one's level of perceived control over love or one's level of relationship satisfaction leads one to place particular focus on either positive or negative aspects of various types of comparison information or whether one's preferred focus leads to one to adopt a particular level of relationship satisfaction or perceived level of control over love. Future research should focus on successfully manipulating people's perceptions of control. Also, although attempting to manipulate one's level of relationship satisfaction poses obvious ethical concerns, future research could assign

participants to temporarily focus on either relationship strengths or relationship weaknesses (a milder proxy for relationship satisfaction). Both procedures will allow future research to better examine the true causal nature of these moderating variables.

Third, Study 2 only examined relationship appraisals in regards to the trait of love, rather than across several traits as was the case in Study1. This was done to enable us to manipulate participants' perceived control over love and examine its moderating effects on current and reported relationship appraisals. However, as a result, our findings from Study 2 may have less generalizability. Therefore further research is required in order to examine whether people's perceived control over other relationship attributes (i.e. communication, trust, common interests, passion, etc.) have the same or different moderating effects on relationship appraisals through various comparison types.

Finally, in Study 2 we do address the issue of self-report, which arose in Study 1, by asking people for their relationship appraisals after they made a specific comparison, allowing us to look more directly at the actual impact of comparisons on current relationship appraisals. However, there is still an element of self-report in Study 2 as participants still had to self-generate a comparison target, which could be influenced by memory biases or self-presentation goals. Although they reported how they felt after making these specific comparisons, for some participants the comparisons might have been experienced as being more hypothetical (i.e. "If you were to compare to "X") than real. Future research should attempt to present participants with more specific comparison targets of various types and directions in order to obtain a more direct measure of impact.

## General Discussion

The present studies sought to address several interesting research questions.

These studies were designed to determine people's preferences among various comparison standards when appraising their romantic relationship, the direction in which people prefer to make relationship comparisons of various types and the reported and actual impact of these comparison standards on relationship appraisals. The present research also sought to examine the moderating effects that certain relationship beliefs and characteristics (controllability and satisfaction) have on the actual and self-reported impact of these comparison standards.

In Study1, contrary to the speculations of both Festinger (1954) and Albert (1977), we found that participants reported that they preferred to make temporal comparisons to their relationship's past or future, relative to social and previous relationship comparisons, possibly due to the high level of personal relevance and easy access one has to such comparison information (Wilson & Ross, 2000). However, social comparisons were reported more frequently than any other comparison type when participants were asked about each comparison direction. This discrepancy may be a result of the broad versus specific line of questioning in the general prevalence and direction prevalence sections. Also, the presentation of questions in the direction prevalence section may have encouraged participants to report direction frequencies within each comparison type rather than relative to other comparison types.

Also, participants reported preferring comparisons which enhanced their current relationship and suggested optimism for their relationship's future. In addition, Study1 found that people reported that comparisons to previous romantic relationships resulted in

the most positive relationship appraisals, perhaps because these comparisons allow people to reap the benefits of overwhelmingly downward social and temporal past comparisons. Many of the above findings were more pervasive across privileged than public relationship traits, possibly due to the creative license that comparisons across privileged traits affords. In future research, it would be interesting to manipulate participants' public/privileged perceptions of various relationship traits to examine the causal relationship between public/privileged information and relationship comparison preferences. Also, as previously mentioned, Study1 primarily utilized self-report measures, which can present problems in regards to social desirability and memory and accessibility issues. Therefore, in Study 2, we felt it was important not only to investigate people's beliefs in regards to their preferences for various comparisons and how these comparisons affect their relationship appraisals, but the actual impact that comparisons of various types and direction had on people's current relationship appraisals.

In Study 2, we found that comparisons to inferior and equal relationships among one's peers, superior and equal points in one's relationship's past and future, and previous relationship comparisons of all directions had the most positive impact on one's current relationship appraisals. Previous research has suggested that downward comparisons are primarily enhancing, whereas upward comparisons are primarily threatening (e.g. Wills, 1981; Wilson & Ross, 2001; Wood, 1989), with the exception of temporal future comparisons, which show a preference for upward comparisons when one seeks to enhance their relationship (Wilson & Ross; 2000). The present research, however, demonstrates that the affective consequences of relationship comparisons are

primarily dependent upon how one interprets them, rather than the direction of the comparison itself. In accordance with previous research, downward social, downward previous relationship and upward temporal future comparisons were perceived as overwhelmingly enhancing comparison standards, as participants reported that most of these comparisons resulted in positive affect. However, contrary to some previous research, participants also reported equal frequencies of positive and negative affect comparisons to superior relationships among their peers, superior previous relationships and inferior points in their relationship's future. Perhaps some participants approached these latter comparison standards with an evaluative goal in mind. Therefore, the verification that their relationships were inferior to the relationships of their peers, or their previous relationships, or that their relationship could become inferior over time may have caused them to feel negatively. In contrast, some participants may have approached these types of comparisons with an improvement goal in mind. As a result, participants may have been motivated and inspired to attain the superior standing of their peer's relationships and their previous relationships, and to avoid having the love in their relationship decline over time. Another possible explanation for these findings may be the contrast between relationship appraisal and self-appraisal. A romantic relationship (especially among young adults) may be under constant scrutiny as one decides whether the relationship should continue or dissolve as such a decision can have serious ramifications on both partners' life plans, and emotional well-being. Therefore, one may approach certain types of comparison information more carefully than one would in a self-appraisal context. In other words, one may weigh the positive and negative aspects of certain types of comparisons which have been generally considered threatening to the

self (e.g., upward social, downward temporal future) more precisely than one would in a self-appraisal context, where the ramifications may not be as likely to extend to others beyond the self.

As predicted, Study 2 also identified perceived control over love as well as relationship satisfaction as factors which affected the way that participants interpreted some comparison information. However, these moderating effects were not found across all comparison types and were not always in the predicted direction. Specifically, participants who perceived little control over love felt most negatively about the love in their relationship when comparing to inferior points in their relationship's past, rather than to superior points as was initially predicted. In contrast, participants who perceived high control over love felt equally positively when comparing to past relationship points of all directions rather than particularly to inferior points as was predicted. Also, as predicted, participants who were dissatisfied with their relationship felt particularly negatively about the love in their relationship after comparing to inferior future points. In addition, highly satisfied participants reported more comparisons to both superior and equal future points than inferior future points, although only preference for superior future points had been predicted. Finally, as predicted, highly satisfied participants reported particularly high frequencies of positive affect comparisons to inferior previous relationships, however, dissatisfied participants reported more negative affect comparisons to inferior previous relationships, rather than to the predicted superior previous relationships.

In addition to the above hypotheses-related findings, perceived control moderated participants' perceived similarity between the love in their current relationship and that of

their temporal future comparison targets. Specifically, high control participants perceived greater similarity to both their upward and same-level temporal future comparison targets than to their downward temporal future comparison targets. In contrast, low control participants felt more dissimilar to upward and downward temporal future comparison targets than to same-level temporal future comparison. These findings extends to temporal future comparisons the initial body of research on social comparison demonstrating that perceived similarity between the self and a comparison target can be manipulated for self-enhancement purposes (Brickman & Bulman, 1977).

Perhaps the most surprising finding in the present research was the discrepancy between participants' reported use of downward temporal past comparisons and the actual effects that these comparisons had on participants' current relationship appraisals. When spontaneously appraising their romantic relationship across various attributes in open-ended narratives (Study1) and reporting the frequency with which they made temporal past comparisons of all directions when appraising the love in their relationship collapsed across affect (Study 2), participants demonstrated a preference for comparisons to inferior points in their relationship's past, coinciding with previous research which has found that people subjectively view themselves and their romantic relationship as improving over time (e.g. Cameron, Ross & Holmes, 2002; Karney & Coombs, 2000; Karney & Frye, 2002). However, when participants were specifically asked to compare to upward, downward and same-level points in their relationship's past (Study 2), downward temporal past comparisons had the least positive impact on relationship appraisals, particularly among people who perceived little control over the love in their relationship. These contradictory results lead one to pose the question: "Why do people

prefer comparing the love in their current relationship to inferior points in their relationship's past, when past comparisons of this direction appear to have the least positive impact on their current relationship appraisals?" Research has shown that people, particularly young adults, view themselves as having improved over time (Ryff, 1991, Wilson & Ross, 2000; Wilson & Ross, 2001). As a result, inferior points in one's relationship's past may be a more plentiful and readily accessible type of comparison information for one to utilize in order to enhance one's relationship in the present. In contrast, upward temporal past comparisons in regards to love, while the most motivating comparison type, are possibly more rare, particularly for participants who find themselves in the aforementioned "honeymoon phase" of their current relationship, and less prone to quick and easy access.

In addition to the modifications which have already been suggested, an interesting extension to the present research would be an examination of people's preferences between the comparison types examined in the present research and counterfactuals. Counterfactuals refer to the imagination of non-factual alternatives to reality. An example of a relationship-based counterfactual is thinking of a relationship which one could have been involved in rather than a relationship one is involved in. Another example of a relationship-based counterfactual is an action one could have taken in regards to a relationship-related event, or a way in which it could have turned out differently (i.e. "If only we had communicated better" or "At least this incident didn't cause our relationship to end"). It would be interesting to examine the direction that people prefer to make relationship-based counterfactuals. Like social, temporal and previous relationship comparisons, researchers have suggested different directions of

counterfactuals (e.g. Markman, Gavanski, Sherman, & McMullen, 1993; Markman, Gavanski, Sherman & McMullen, 1995; McMullen & Markman, 2002). Upward counterfactuals are superior alternatives to reality, such as a superior relationship one could have been involved in or a superior course of action or outcome. In contrast, downward counterfactuals are inferior alternatives to reality. Finally, same-level counterfactuals, which have not been examined as extensively in previous research, would be equal alternatives to reality, such as an equal relationship one could have been involved in with a different partner or an equal course of action one could have taken (i.e. "He/she would also have been happy had I bought him/her a nice meal rather than the expensive sweater"). Future research could examine whether or not counterfactuals lead to more or less positive relationship appraisals than the comparison types investigated in the present research and if certain factors moderate the impact that counterfactuals would have on relationship appraisals. Markman et al. (1993) found that temporal perspective played a role in the affective reaction of counterfactual thinking. Specifically, when participants received negative feedback in regards to their performance on a computerized game of blackjack, which they were led to believe that they would have additional opportunities to play, people felt more satisfied when making self-enhancing upward counterfactuals (i.e. "If only I had chosen to stick on 17, rather than taking another card") rather than downward counterfactuals. In contrast, when participants were led to believe that they would not have another opportunity to play the game, it was downward (i.e. "At least I didn't lose all my money"), not upward counterfactuals that resulted in the most satisfaction about the outcome of the game. Markman et al. (1993) reasoned that when given the opportunity to repeat a task, people will prefer to generate

superior alternatives in order to generate strategies which will allow them to improve on their initial outcome. Conversely, when presented with a negative outcome from a one-time event such as an expensive vacation or playing in a championship game, the best one can do is to enhance their situation through comparisons to inferior alternatives. Temporal perspective may also be linked to perceived control over future events. As on perceives more opportunities to repeat a task or event in the future, one may develop a greater sense of perceived control over the event's outcome.

It would be interesting to examine whether or not temporal perspective would have the same moderating effect on the affective reaction of relationship-based counterfactual thinking. In keeping with Markman et al.'s (1993) speculations, one would be expected to feel most positively about negative relationship feedback when asked to make upward relationship-based counterfactuals (e.g., "If only I had chosen a better movie for us to watch") when one is led to believe that one will have the opportunity to rectify the negative situation (e.g., a simple date which did not go well). In contrast, when one receives negative relationship feedback in regards to a relationship-related event which can not be repeated (e.g., meeting one's partner's parents for the first time), one should feel most positively when asked to generate downward counterfactuals (e.g., "At least I didn't spill wine on his/her mother").

Finally, the present research suggests that people may predominantly possess a relationship-enhancement goal when they report their comparison preferences or are presented with various types of comparison information and then asked to appraise their current relationship. A logical next step in regards to future research would be to manipulate people's goals (enhancement vs. evaluation vs. improvement) in order to

examine the causal effects of goals on people's preferences for various comparison types in a relationship context, which would also add to the literature which has examined the effects of people's goals on comparison preferences for self-assessment (e.g. Wilson & Ross, 2000; Wood, 1989). In particular, further research is required in regards to the priming of improvement goals, which has received somewhat less attention than evaluative and enhancement goals.

Although the present research does have its limitations, we feel that it is important for several reasons. As mentioned before, the present research adds to the relatively small bodies of work examining people's preferences between social and temporal comparisons as well people's uses of previous relationship comparisons when evaluating their romantic relationships. More importantly, the present research highlights the variability in one's romantic relationship appraisals depending on the comparison standards one chooses to utilize and one's personal beliefs and characteristics.

The present research also demonstrates how even methodological factors can influence one's reported relationship comparison preferences. Specifically, in Study 1, the order in which temporal past and social comparison-related questions were presented to participants qualified the pattern of reported prevalence of both types of comparisons. It is also plausible that by having temporal future and previous relationship-related questions consistently presented last in the questionnaire, the salience of these comparison types may have been compromised, possibly resulting in a decrease reported prevalence of both types of comparisons across several measures in Study 1. This highlights the malleability of reported relationship comparisons across various contexts.

The present research also highlights the fact that people are not confined to one type of comparison standard at a time, yet most previous research has focused only on one particular comparison standard while investigating relationship appraisals. We also feel that the examination of people's preferences between various comparison standards in relation to one another helps to highlight the complexity and flexibility of people's appraisal choices, particularly when they are motivated to arrive at a positive conclusion. Finally, the present research highlights the notion that comparisons of various types and directions can affect people in different ways depending on their personal feelings and opinions about the current state of their relationship.

The present research is a first step toward a better understanding of how people appraise their relationships and what patterns may be beneficial or detrimental to favourable evaluations. Future research should be done to better understand how people can avoid detrimental appraisal patterns, while at the same time maintaining the ability to accurately assess the concerns and issues within a relationship. Such findings could eventually have useful implications for marriage and couples therapy.

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#### APPENDIX A

Note: The following is an excerpt from the questionnaire we used for Study1. In this excerpt, all the methods that were used in Study1 are presented for only the attribute of relationship satisfaction. However, in the actual study, the same measures were also used for assessments of the following traits as well: love, commitment, passion, common interests, conflict, fidelity and relationship partner's physical attractiveness.

## PART A

Please indicate how likely you are to use each of the following kinds of information if you want to describe your current relationship on the following attributes.

You may chose the same or different types of information to evaluate your relationship on each dimension. Using the scale below, please write the number that best represents your response in the blank text to each question. If the question does not apply to you, mark an X.

0	1	2	3	4	5	6	7	8	9	10
Extremely					Neither	2			E	extremely
Unlikely					Likely	nor		L	ikely	
					Unlikel	y				
Relationsh	ip Satis	faction	2 5 5			•				
	low you	relatio	nship co	mpare	s now to	what it	was lik	e in the	past.	
At what sta	ige of yo	our relat	ionship	in the p	oast do y	ou mos	t often	compar	e? (Beg	ginning,
Midpoint,	etc.)							-		-
H	low your	current	relatio	nship c	ompares	to othe	er romai	ntic rela	tionshi	ps among
other unive					-					
To what of	her relat	ionship	do you	most o	ften cor	npare?(a	a friend'	s, an av	erage o	lassmates,
etc.)										
H	low your	relation	nship co	ompare:	s now to	what y	ои ехре	ect it to	be like	in the
future.										
At what po	int in the	e future	do you	most o	ften cor	npare y	our curi	ent rela	tionshi	ρ?
	200.6									
H	low your	relation	iship co	ompares	s now to	other r	elations	hips yo	u have	had in the
past.										
With what	past rela	tionship	do you	ı most (	often co	mpare?	(most r	ecent, n	nost dis	tant etc.)
H	ow your	current	relation	iship co	mpares	to one	other ty	pe of co	omparis	ion
information	ı you ma	y use. I	List one	other 1	type of o	compari	son info	rmatior	n you t	ise, if
any? (your	parent's	relation	ıship, fi	ctional	relation	ships on	televisi	on, cele	ebrity	

relationships in the r values, etc.)		popular p	sycholog	y (ie self	-help lit	erature)	), religiou	103 Is
		AP	PENDL	XВ				
Now, please following character think helps to describe not want to include your current relationship the past, how you, how your current involved in, or other	ristics, using the your of the types on ship in the current of the relationship in the	ng your or current re s of inform the present relationship compa	wn word elationslination lint compa nip compares to o	ls. Use the sted on the sted on the sted on the stee to the stee t	whatevorate attriction the previous curtility our curtility the relation to th	er inforbute. Vious prent re tionships tionships	mation : You may age such lationsh ips of you you've	that you y or may as how ip in ur peers been
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presently?			-	_	****			
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LIGICA DESTRUCTION							NAME OF BUILDING	22/22

## APPENDIX D

Next, think about your current relationship using each of the information types we provided. Even though we usually use many sources of information to decide what our relationships are like, we might reach somewhat different conclusions if we only used a single kind of information.

Whether or not you said you were likely to use the information in the first part of the study, please indicate how you would rate your current relationship if you compared only to that one kind of information. Use the comparison targets that you listed as your most typical comparisons in PART A. For each piece of information, please select the number from the scale that best represents your response and write it in the blank next to that question.

	0	1	2	3	44	5	6	prog Ž	8	9	<u> 10</u>
Not at	all									Extr	emely
Satisfi	eđ									Satis	sfied
Relati	onship	Satis	faction:	, ,							
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point i	n your	relatio	nship's	past you	u most	often c	ompare)	, how s	atisfied	would y	ou feel
with y	our rela	ationsh	ip?								
If you	compa	red yo	ur curre	nt relati	onship	now or	aly to ot	her rela	tionship	s amon	g your
peers (	the par	rticula	r other r	elations	hip to v	which y	ou most	likely o	ompare	), how :	satisfied
would	you fe	el with	your re	elationsh	iip?						
	a.						nly to an				4
been ir	ivolved	l in (yo	our first,	second	, etc.),	how sa	tisfied w	rould yo	ou feel v	vith you	I
	nship?										
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			-			which	you mos	st often	compar	e), how	satisfied
	~		your re		-						
2		-			a		•		w x		ormation
~		*		a			elationsh	* -			
celebri	ty relat	tionshi	ps in rea	ıl life, p	opular 1	psychol	logy, reli	igious v	alues, e	tc.), hov	W
satisfie	d wou	ld you	feel wit	h your 1	elation	ship?					

## APPENDIX E

## PART C

Next, you will read a list of possible comparisons that people sometimes make when assessing their dating relationships on various traits. Please think of the kind of comparisons that you have made of each type listed, and indicate how often you make each type of comparison when assessing your current relationship. Please mark the number that best represents your response in the blank next to each statement. If you never make comparisons of that type, please mark an X in the blank.

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Comparing	with of	her relati	onship:	s that are	wors	e than m	ine			
Comparing	with of	her relati	onships	s that are	about	the sam	ie as mi	ne		
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Comparing	with a	point my	relation	nship's fi	uture t	hat will l	be wor	se than t	he prese	2016
Comparing present	with a	point my	relatio	nship's fi	uture t	hat will l	be abou	it the sa	me as th	e
Comparing	with a	past relat	ionship	that wa	s bette	r than m	y curre	nt relati	onship	
Comparing	with a	past relat	ionship	that wa	s wors	e than m	iy curre	ent relati	onship	
Comparing	with a	past relati	ionship	that was	s abou	t the san	ne as m	у сиптег	it relatio	nship
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Comparing better than		***			er type	of com	parison	informa	ition tha	t was
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Comparing same as you	with an	example	of the	//	er type	of com	parison	informa	ition tha	t was the

## APPENDIX F

#### PART D

Finally, please indicate whether or not you feel each of the eight relationship attributes discussed in this study can be best described as a form of public information, which can easily be assessed by others, or as a form of privileged information that can only be assessed by you and your current relationship partner. Please rate each attribute according to the following scale.

		2 2:	3	<u>A</u>	5	6	en e	8	9	10
Public :									Pr	ivileged
Relationshi	p Satis	sfaction								
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r.					2400 \$	- 4 <sup>1</sup> -1				

Thank you very much for your participation in this study!

## APPENDIX G

Coding Instructions: Social, temporal-past, temporal future, previous relationship, other information comparisons and objective statements when assessing romantic relationships.

# Social Comparisons (soc):

Any description of one's current relationship that refers to the relationships of other people as an explicit or implicit comparison.

- 1) Social upward (upsoc): Other relationship (s) is/are better than/ superior to one's own relationship (My friends have more love in their relationships than I do in mine, my partner is not as attractive as my roommate's partner).
- 2) Social downward (dnsoc): Other relationship(s) is/are worse than/inferior to one's own relationship (We have stronger commitment than average couples, I can see that we have more passion than others).
- 3) Social same-level (slsoc): Other relationship(s) is/are the same as one's own relationship (The passion in our relationship is average, I would say that we have just as many common interests as my friends have in their relationships).

# Temporal Comparisons (Past) (tcp):

Any description of one's current relationship that refers to a moment or event in the relationship's past as an explicit or implicit comparison.

- 1) Temporal past upward (uptcp): Relationship's past is better than/superior to the relationship in the present (We were closer when we first started dating (explicit), The passion in our relationship has decreased (implicit)).
- 2) Temporal past downward (dntcp): Relationship's past is worse than/inferior to the relationship in the present (We have developed more common interests then we had in the past (explicit), My partner looks better and better every time I see them (implicit)).
- 3) Temporal past same level (sltcp): Relationship's past is the same as the relationship in the present (We have always been faithful to one another (implicit), My partner is as attractive as he/she was when we first started dating (explicit)).

# Temporal Comparisons (Future) (tcf):

Any description of one's current relationship that refers to a moment or event in the relationship's future as an explicit or implicit comparison.

- 1) Temporal future upward (uptcf): Relationship's future is better than/superior to the relationship in the present (We will become closer as time passes, Someday we will learn to not argue as much).
- 2) Temporal future downward (dntcf): Relationship's future is worse than/inferior to the relationship in the present (I worry that my partner will become less attractive to me, I don't think this relationship will last for much longer).
- 3) Temporal future same-level (sltcf): Relationship's future is the same as the relationship in the present (We will be together forever, My partner will always be there for me).

## Previous Relationship Comparisons (pr):

Any description of one's current relationship that refers to a moment or event in one's previous relationship(s) with a different partner or one's current partner's previous relationship (s) with a different partner as an explicit or implicit comparison.

- 1) Previous relationship upward (uppr): Previous relationship is better than/superior to one's present relationship (My current partner is not as physically attractive as my last partner, My previous relationship was more passionate).
- 2) Previous relationship downward (dnpr): Previous relationship is worse than/inferior to one's present relationship (We don't fight nearly as much as my last partner and I did, I've never loved anyone as much as I love my current partner).
- 3) Previous relationship same-level (slpr): Previous relationship is the same as one's present relationship ( All my partners have been very attractive, I'm just as close to my current partner as I was to my previous partner).

# Other information comparisons (oci):

Any description of one's current relationship that refers to any other types of comparison information other than the previously mentioned types as an explicit or implicit comparison.

- 1) Other comparison information upward (upoci): Other comparison information is better than/superior to one's current relationship (My relationship is not as passionate as relationships on television, We are not as close as this magazine article says we should be).
- 2) Other comparison information downward (dnoci): Other comparison information is worse than/inferior to one's current relationship (There is more commitment in my relationship than there is in relationships on tv or in the movies, We don't fight as much as this survey says couples our age fight).
- 3) Other comparison information same-level (sloci): Other comparison information is the same as one's current relationship (According to popular psychology, my relationship has the ideal amount of love, There is as much love in our relationship as there are in relationships on t.v.).

# Objective Statements

Any description of one's current relationship that does not involve any of the previouslymentioned comparison types, nor has any emotional connotation.

- 1) Positive objective statements (po): Statements regarding the relationship are positive and do not involve either of the partner's feelings in regards to the trait in question ( There is great passion in our relationship, We have many common interests, We are extremely close).
- 2) Negative objective statements (no): Statements regarding the relationship are negative and do not involve either of the partner's feelings in regards to the trait in question (My partner is not very attractive, We are not very close, We fight too much).
- 3) Neutral objective statements (neo): Statements regarding the relationship can not be distinguished as either positive or negative and do not involve either of the partner's feelings in regards to the trait in question (There is conflict in our relationship, I wonder about the relationship's future).

#### **Emotional Statements**

Any description of one's current relationship that does not involve any of the previouslymentioned comparison types, and which also expresses either partner's feelings in regards to the relationship.

1) Positive emotional statements (pe): Statements which reflect relationship partner's positive feelings in regards to the trait in question ( I love my

- partner, I am very satisfied with my relationship, I enjoy doing activities with my partner).
- 2) Negative emotional statements (ne): Statements which reflect relationship partner's negative feelings in regards to the trait in question (I am not satisfied with my relationship, I do not feel very close to my partner, I am not attracted to my partner).
- 3) Neutral emotional statements (nee): Statements which reflect relationship partner's indifference or uncertainty to the trait in question (I think my partner loves me, I'm pretty sure my partner is committed to me).

# Other Coding Notes

- Code by fragments/phrases/sentence units rather than simply by sentence. This will allow for several possible comparisons to be coded in one sentence rather than giving priority to one over another.
- Simply discussing the relationship's past does not count as a temporal comparison unless there is an explicit or implicit comparison being made to the relationship in the present. Look for words such as "have always" "used to be", "better", "worse", etc.
- Only code for statements that reflect on the relationship as opposed to statements that only reflect one partner's opinion(s) on the trait in question.
- Love, satisfaction and attraction are "feeling-based" traits more so than the other traits and should be coded as such. For instance, "There is love in our relationship" should be coded as an positive emotional statement, while "We have common interests" would be coded as a positive objective statement.
- Some comparisons or statements are dependent on the context in which the participant is discussing the trait in question. What may appear to be a positive comparison or statement in one context, may be a negative comparison or statement in another.
- Do not code a statement as both a comparison and objective or emotional statement, give priority to comparison. Only code statements as objective or emotional when they are clearly not explicit or implicit comparisons.
- Any comparisons made to others who are not explicitly referred to as previous relationship partners, should be coded as social comparisons.

For example in the sentence "I have never felt this way about anyone before", we are not explicitly told that the participant is comparing to a previous relationship partner. All we know is that she or he is comparing to a weaker standard and therefore, this sentence would be coded as a downward social comparison.

- Whenever the direction of the comparison can not be determined, simply code it as a comparison without direction using one of the following codes depending on who or what is being compared (soc, tcp, tcf, pr, oci).

## APPENDIX H

Please read through each of the following items and circle the number that best represents the state of your current relationship.

1. I feel happy when I'm with my partner.

- Annana	2	3	4	5
very often	fairly often	sometimes	seldom	never

2. We have quarrels.

Processing to the second	2	3	4	5
very often	fairly often	sometimes	seldom	never

3. Things go well between us.

· parage	2	3	4	5
very often	fairly often	sometimes	seldom	never

4. I regret being involved in this relationship.

<b>T</b>	2	3	4	5
very often	fairly often	sometimes	seldom	never

5. My partner irritates me.

- Society	2	3	4	5
very often	fairly often	sometimes	seldom	never
6. I consid	er leaving my	partner.		
pouced	2	3	4	5
very often	fairly often	sometimes	seldom	never
7. I enjoy	the company o	f my partner.		
			æ	ي سم
Associate	Dece .	3	4	5
very often	fairly often	sometimes	seldom	never
	<			
8. I feel ou	r relationship	won't last.		
1		3	4	5
	4	3	•	•
very often	fairly often	sometimes	seldom	never

#### APPENDIX I

Note: The following are both versions of our perceived level of control manipulation.

## \* Low Control Manipulation

# Please take a moment and read the following abstract.

Record 1 of 1 in PsycINFO 1995-2000

AN: 1998-18730-001

DT: Journal-Article

TI: Assessments of the formation, maintenance and dissolution of romantic relationships.

AU: Trent, -Alicia-A.; Klimoski, -Michael-J.

SO: Journal-of-Personal Relationships. 1998 Feb; Vol

102(1): 3-11.

IS: 0021-9010

PY: 1998

AB: A sample of 250 young adults was assessed annually from age 18 to age 24 in an effort to study the formation, maintenance, and dissolution of romantic relationships. One focus was to examine the experience of love and its role on relationship trajectory. An unexpectedly strong finding emerged indicating that a majority of participants experienced love as uncontrollable - they reported being unable to choose their romantic partner, or control or predict when they would fall in love, whether it would increase or decline, and if it would end. Attempts to alter or dictate the experience of love invariably failed - even if people desired to work at making love grow, they were typically unable to do so; likewise, they were not able to reduce or terminate any unwanted emotions under their own volition. This finding was surprising given that people frequently see love as an emotion that can be cultivated, developed, and otherwise controlled. (PsycINFO Database Record (c) 2002 APA, all rights reserved)

The article by Trent & Klimoski (1998) suggests that people experience the levels of love in their romantic relationships as being beyond their control. People have no control over whom they fall in love with, when they fall in or out of love or how the love in their relationship fluctuates over time. However, what these authors do not explore are the reasons why these findings exists. One of the purposes of the current study is to further investigate these past findings, and to better understand why they exists. We are interested in people's intuitions about why people experience love as being uncontrollable. Please take a few minutes to think about and explain the reasons why you think that even if people express the desire to control the love in their romantic relationships, they are unable to do so.

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# \* High Control Manipulation

# Please take a moment and read the following abstract.

Record 1 of 1 in PsycINFO 1995-2000

AN: 1998-18730-001

DT: Journal-Article

TI: Assessments of the formation, maintenance and dissolution of romantic relationships.

AU: Trent,-Alicia-A.; Klimoski,-Michael-J.

SO: Journal-of-Personal Relationships. 1998 Feb; Vol 102(1): 3-11.

IS: 0021-9010

PY: 1998

AB: A sample of 250 young adults was assessed annually from age 18 to age 24 in an effort to study the formation, maintenance, and dissolution of romantic relationships. One focus was to examine the experience of love and its role on relationship trajectory. An unexpectedly strong finding emerged indicating that a majority of participants experienced love as controllable - they reported being able to choose their romantic partner, and control or predict when they would fall in love, whether it would increase or decline, and if it would end. Attempts to alter or dictate the experience of love were typically met with success - if people desired to work at making love grow, they were able to do so; likewise, they could choose to reduce and eventually terminate any unwanted emotions. This finding was surprising given that people frequently see love as an emotion that is difficult to dictate. (PsycINFO Database Record (c) 2002 APA, all rights reserved)

The article by Trent &	k Klimoski (1998)	suggests that people exper	rience the levels
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# APPENDIX J

In your opinion, how much control do you feel you have over the level of love between yourself and your current relationship partner?(circle one)

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public									privi	leged

## APPENDIX K

Note: The following is one of four possible questionnaires. In Study 2, participants were randomly assigned to one of four possible comparison type groups (social comparison, temporal past comparison, temporal future comparison or previous relationship comparison) and received a questionnaire based on their group assignment. The following is a copy of a questionnaire that was provided to the social comparison group.

## PART A

Thank you for taking part in this study. Please read each question carefully and respond as directed. Note that you are free to omit a response to any question you prefer not to answer. To begin, please answer the following questions pertaining to your background information.

Åge:	Gender (please check one): Male Female
Year in University:	Academic Major:
Length of time (in mont current partner	hs) that you have been romantically involved with your
Number of previous ron	nantic relationships
you ended the relationsl former partner	past romantic relationships, please indicate how many times nip, how many times a relationship was ended by a, and how many times you and your former partner the relationship Please write the appropriate

# APPENDIX L

First, please think of a relationship among your peers that you feel is superior to your current relationship in terms of love (for example, a friend's relationship, a classmate's relationship, a sibling's relationship, etc.).

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Based on previous research, people have reported when they think about a romantic relationship among their peers that is superior to their current relationship in terms of love, it makes them feel inspired and excited. For these people, thinking about a romantic relationship among their peers that is superior to their current relationship in terms of love offers inspiration and hope that the level of love in their current relationship may someday be superior. People have also reported that when they think about a romantic relationship among their peers that is superior to their current relationship in terms of love, it makes them feel upset and discouraged about their current relationship. For these people, thinking about a romantic relationship among their peers that is superior to their current relationship in terms of love only causes them to feel hopeless that the level of love in their current relationship could never measure up to such a high standard. Also, some people have reported feeling both inspired and excited, as well as upset and discouraged when they think about a romantic relationship among their peers that is superior to their relationship in terms of love.

First, considering all the possible comparisons you can make, please rate how often you make comparisons to superior relationships among your peers in terms of love, resulting in you feeling inspired and excited that the level of love in your current relationship may someday be superior by circling the appropriate number on the following scale.

0	1	2	3	á	5	6	7	88	9	10	
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Next, considering all the possible comparisons you can make, please rate how often you make comparisons to superior relationships among your peers in terms of love, resulting in you feeling upset or discouraged that the level of love in your current relationship may never measure up to such a high standard by circling the appropriate number on the following scale.

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Neve	<b>*</b>								Ver	y Often	
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Based on previous research, people have reported that when they think about a romantic relationship among their peers that is inferior to their current relationship in terms of love, it makes them feel proud and grateful that the level of love in their current relationship is superior. People have also reported that when they think about a romantic relationship among their peers that is inferior to their current relationship in terms of love, it makes them feel worse and anxious about their current relationship. For these people, thinking about a romantic relationship among their peers that is inferior to their current relationship in terms of love only increases their fears that the level of love in their current relationship may possibly someday become inferior. Also, some people have reported feeling proud and grateful as well as worse and anxious when they think of a previous relationship that is inferior to their current relationship.

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First, considering all the possible comparisons you can make, please rate how

Based on previous research, people have reported that when they think about a romantic relationship among their peers that is equal to their current relationship in terms of love, it makes them feel happy and satisfied. For these people, thinking about a romantic relationship among their peers that is equal to their current relationship in terms of love allows them to feel that the level of love in their relationship is normal and is measuring up to society's standards. People have also reported that when they think about a romantic relationship among their peers that is equal to their current relationship in terms of love, it makes them feel upset and discouraged about their current relationship. For these people, thinking about a romantic relationship among their peers that is equal to their current relationship in terms of love only causes them to feel hopeless that the level of love in their current relationship is only average and is not especially unique. Also, people have reported feeling both happy and satisfied as well as upset and discouraged when they think about previous relationships they've had that are equal to their current relationship in terms of love

First, considering all the possible comparisons you can make, please rate how often you make comparisons to equal relationships among your peers in terms of love, resulting in you feeling happy and satisfied that the level of love in your current relationship is normal and measuring up to society's standards by circling the appropriate number on the following scale.

O 1 2 3 4 5 6 7 8 9 10

Never Very Often

Please provide an example of such an equal relationship among your peers that make you feel happy and satisfied when you compare your current relationship to that relationship in terms of love.

Thank you very much for your participation! It is very much appreciated!