



**HAL**  
open science

## How level of construal guides the interpretation of ambiguous interpersonal situations

Kai Epstude, Jens Förster

► **To cite this version:**

Kai Epstude, Jens Förster. How level of construal guides the interpretation of ambiguous interpersonal situations. *Journal of Experimental Social Psychology*, 2011, 10.1016/j.jesp.2011.03.019 . peer-00995258

**HAL Id: peer-00995258**

**<https://hal.science/peer-00995258>**

Submitted on 23 May 2014

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

## Accepted Manuscript

How level of construal guides the interpretation of ambiguous interpersonal situations

Kai Epstude, Jens Förster

PII: S0022-1031(11)00084-9  
DOI: doi: [10.1016/j.jesp.2011.03.019](https://doi.org/10.1016/j.jesp.2011.03.019)  
Reference: YJESP 2650

To appear in: *Journal of Experimental Social Psychology*

Received date: 28 December 2010  
Revised date: 21 February 2011



Please cite this article as: Epstude, K. & Förster, J., How level of construal guides the interpretation of ambiguous interpersonal situations, *Journal of Experimental Social Psychology* (2011), doi: [10.1016/j.jesp.2011.03.019](https://doi.org/10.1016/j.jesp.2011.03.019)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Running head: Ambiguous situations and level of construal

How level of construal guides the interpretation of ambiguous interpersonal situations

Kai Epstude

University of Groningen

&

Jens Förster

University of Amsterdam

Word count: 2500

Address correspondence to

Kai Epstude

University of Groningen

Department of Social & Organizational Psychology

Grote Kruisstraat 2/1

9712 TS Groningen

The Netherlands

Email: k.epstude@rug.nl

Phone +31 50 363 7632

Fax +31 50 363 4581

**Abstract**

Interpreting ambiguous situations is a task individuals face on a daily basis. In romantic contexts the accurate interpretation of these situations is of particular importance. In the present set of studies we investigated how level of construal guides individual perception in these cases. When a high level of construal was induced participants likely interpreted a given interpersonal situation as the start or the continuation of a long lasting relationship. When a low level of construal was induced the same situations were more likely interpreted as leading to a one-night stand (in a dating situation) or involving little chance of a common future for both actors (in a break-up situation). In sum, the present studies demonstrate construal level to be a crucial determinant of the interpretation of ambiguous romantic situations. We discuss these findings in relation to the functional independence of love and sex, level of construal, and social perception.

Word count: 149

Keywords: construal level; global and local thinking; love; situational inferences

A look, a smile, a subtle gesture. These simple cues are oftentimes the only hint individuals have when they start to date a person. Many of us would be happy to obtain some kind of “accurate” interpretation of what the situation is about. The cues are subtle and ambiguous. Making the wrong move at the wrong time could lead to disaster. Of course one could also see the setting as a kind of trial and error situation with an exciting outcome. Whatever view you prefer it is clear that romantic situations can contain a lot of ambiguity that needs to be dealt with by individuals, or in other words is a very complex decision situation (e.g. Chapdelaine, Kenny, & LaFontana, 1994; Eastwick & Finkel, 2008; Hatfield & Rapson, 2005; Hatfield & Sprecher, 1986).

Interpreting ambiguous behaviors is guided by preexisting information we have about the other person (Uleman, Newman, & Moskowitz, 1996), activated cognitive concepts (Srull & Wyer, 1979; Higgins Rholes & Jones, 1979), and our own goals in a situation (Mc Culloch, Ferguson, Kawada, & Bargh, 2008). In determining whether a dating context leads to a long lasting love story or a one-time sexual encounter the way individuals mentally represent the situation might play a crucial role. Diamond (2003, 2004) suggested that love and sex are functionally independent. She cites evidence from various areas of psychology and physiology indicating that both concepts activate very different mental and bodily processes.

Recent research showed distinct effects on perceptual and conceptual attention (Förster, 2010; Förster, Epstude, & Özelsel, 2009; Förster, Özelsel, & Epstude, 2010). Love broadened participants’ perceptual scope, while sex narrowed it down. Moreover love led to increased performance on creativity tasks (that usually profit from activation of broad categories) while sex improved performance on analytical tasks (that profit from

activation of narrow categories; Förster et al, 2009). Consistent with recent theorizing (Förster & Dannenberg; 2010) it was suggested that perceptual scope is strongly linked to conceptual scope of information processing (Förster & Dannenberg, 2010) and results showed that the perceptual style elicited by priming love or sex mediated effects on higher order conceptual tasks (Förster et al., 2009, 2010).

Furthermore, one may relate love versus sex to different construal levels and psychological distance (Lieberman & Trope, 2008, Trope & Liberman, 2003, 2010). While love is an abstract concept generally associated with a long-term temporal perspective (Aron & Aron, 1980), sex is relevant in the here and now. Consistently, in Förster and colleagues' studies (2010) thoughts related to distant future events mediated the effects of love versus sex on conceptual scope. It seems that because people usually think about love in high-level construals and they think about sex in low-level construals, such associations are stored in memory and influence ways of processing information out of participants' awareness. Is there a possibility of a bidirectional link?

The assumed links inspired us to hypothesize that in an ambiguous dating context the activation of a high level of construal should lead to stronger tendency to interpret the situation in terms of love, than in terms of a sex. In contrast, activation of a low level of construal should lead to the opposite interpretation.

#### Overview of the studies

Across three studies we manipulated level of construal; such priming phase was followed by the evaluation of an ambiguous dating situation (Study 1 and 2) or a complex break-up scenario (Study 3).

#### **Study 1**

*Participants and design.* Forty-six students (27 females) participated in a 2 level of construal (between: high, low) X 2 interpretation (within: love, sex) design.

*Procedure.* The first part of the study consisted of various vignettes that were based on the materials used by Freitas, Liberman, and Trope (2004). Participants were presented with six vignettes unrelated to dating, love, or sex (e.g. Henk plans to take driving lessons); while half of the participants had to write down *how* the actor does something (low construal level), the other half had to write down *why* the actor does is (high construal level). Next, participants received another vignette describing how a male and female meet each other at a bar, and obviously find each other attractive. The story stopped at the point at which the male brings the female to the doorstep of her home. Participants were asked to complete the story. After that participants rated on different dimensions what likely happened using scales ranging from 1 (*not at all*) to 7 (*very much*). Scales included two items directly asking whether the couple starts a serious relationship (e.g. Do you think they are in love with each other?), and whether it was a one-night stand (e.g. Do you think it was a one-night stand?). In addition we asked whether the two might still be in contact after one year (anchored at 1 = *no contact at all*, and 7 = *a lot of contact*). Furthermore we measured participants' mood with a single item (i.e. How do you feel right now?; 1 = *very bad*) to 7 = *very good*).

### *Results and discussion*

We summarized the two items measuring love ( $r=.81$ ) and sex ( $r=.73$ ) into two means respectively. The results were in line with our expectations. Participants primed with a low construal level interpreted the situation more in terms of sex ( $M=3.93$ ,  $SD=1.95$ ) than in terms of love ( $M=2.48$ ,  $SD=2.42$ ),  $t(44)=2.31$ ,  $p=.02$ ). Participants

primed with a high construal level interpreted the situation less in terms of sex ( $M=1.91$ ,  $SD=2.09$ ) than in terms of love ( $M=4.00$ ,  $SD=1.73$ ),  $t(44)=3.17$ ,  $p=.003$ ;  $F(1,44)=15.07$ ,  $p<.001$ ,  $\eta_p^2 = .25$ , for the significant interaction in a 2(construal) x 2(interpretation) mixed-model ANOVA. Including mood as a covariate led to the same interaction as the only significant effect,  $F(1,44)=16.61$ ,  $p<.001$ ,  $\eta_p^2 = .28$ . Furthermore participants for whom a low construal level was activated assumed that the contact between the two actors after one year was less frequent ( $M=3.42$ ,  $SD=2.43$ ) than participants in the high construal level condition ( $M=4.91$ ,  $SD=2.11$ ),  $t(44)=2.21$ ,  $p=.03$ ,  $d=.65$ .

The results served as first indication that level of construal indeed guides our perception of ambiguous interpersonal situations. Yet, the manipulation we used (i.e. how vs. why descriptions of events) has previously also been used in relation to subjective reports of happiness (Strack, Schwarz, & Gschneidinger, 1985). We did not find any differences in terms of affect in the present study. However, in order to avoid this potential confound a second study was conducted using a different priming manipulation.

## Study 2

In this conceptual replication, participants were primed with a different task in which they had to either infer an exemplar from a given category, or a category from a given exemplar (low vs. high level of construal; Fujita, Trope, Liberman, & Levin-Sagi, 2006).

### *Method*

*Participants and design.* Fifty-seven (52 females) psychology students participated, the design compared 2 level of construal (between: high, low) with 2 interpretation (within: love, sex).



*Procedure.* Adapting a version of a priming task used by Fujita et al. (2006), participants had to complete 40 sentences of the following structure “The Empire state building is an example of ... “. Having to infer a higher order category from a given exemplar should prime a *high-level of construal*. In the *low-level construal* condition materials consisted of content wise similar sentences that differed in structure. Here participants had to deduct an example from a given category, such as “An example for a skyscraper is...”. The remainder of the experiment was identical to Study 1.

### *Results and discussion*

We again summarized the two items measuring love ( $r=.69$ ) and the two items measuring sex ( $r=.68$ ), respectively. Participants for whom a high level of construal was activated thought the couple was in love ( $M=4.58$ ,  $SD=1.68$ ) than as a sexual encounter ( $M=3.53$ ,  $SD=1.89$ ),  $t(55)=2.42$ ,  $p=.02$ . However, participants for whom a low level of construal was activated the situation was perceived more in terms of sex ( $M=3.30$ ,  $SD=1.20$ ) than love ( $M=4.16$ ,  $SD=1.71$ ),  $t(55)=1.94$ ,  $p=.057$ . The interaction was significant in a 2 (construal) x 2 (interpretation) mixed-model ANOVA,  $F(1,55)=9.45$ ,  $p<.01$ ,  $\eta_p^2=.15$ . No other effects were significant, all  $F_s<1.1$ . Including mood as a covariate resulted in the same interaction,  $F(1,55)=8.06$ ,  $p<.01$ ,  $\eta_p^2=.13$ . Furthermore, participants in the low construal condition were less likely to think that the two still see each other in one year ( $M=3.86$ ,  $SD=2.59$ ) than high construal participants, ( $M=5.45$ ,  $SD=2.01$ ),  $t(55)=2.60$ ,  $p=.01$ ,  $d=.68$ . In short, Study 2 conceptually replicated Study 1 in that level of construal affects the interpretation of ambiguous interpersonal situations.

### **Study 3**

Thus far our studies focused on an ambiguous dating context. Our model of the information processing consequences of love and sex is not limited to such contexts. Ambiguity in terms of perceptions of relationship quality (Gagne & Lydon, 2001) or relationship expectancies (Downey, Freitas, Michaelis, Khouri, 1998) can also occur when relationships end. The present study examines whether level of construal also guides interpretations of ambiguous break-up situations. More specifically, we presented a scenario in which a couple had broken up and meets again at a party – we asked whether they would restart their relationship or whether they would stay single. We expect high-level construals to be linked to love, while low-level construals should lead participants to assume the dissolution to be final.

Such study can also distinguish between psychological distance and level of construal driving effects in the former studies. It is possible that high level of construal elicited thoughts about distal events and that this transfers the current situation to the distant future. Since love, involving wishes of “foreverness” (Förster, et al., 2009) is more related to the distance than sexual desire participants may have interpreted the situation as love. If distance is the mechanism, then in a break-up scenario, people primed with high level construals should think that *this* situation would stay for a longer time. If however, high level construals are more directly linked to love, then people would interpret the situation as a renewal of love.

### *Method*

*Participants and design:* Thirty-nine students (30 females) participated in the study in exchange for course credits. A 2(level of construal: high, low) x 2

(interpretation: love, final dissolution) mixed-model design with interpretation as a within-factor was realized.

*Procedure:* Participants completed the same priming manipulation as in Study 2. Next, participants read a scenario involving a couple that has a while ago ended their relationship. The relationship was described as almost perfect and lasting throughout the college years. However, both actors grew increasingly worried that they become settled too early. So they split and both had various short-term relationships in the meantime. Nevertheless, once in a while they thought about their previous partner, without ever committing it. Participants read that they accidentally meet at a party of a friend for the first time since their split-up. After that participants rated on different dimensions what likely happened using scales ranging from 1 (*not at all*) to 7 (*very much*). Dependent measures included two questions concerning a potential revival of their relationship (e.g. Are they still in love?), and two questions about a definite dissolution of the relationship (e.g. Do they stop having contact?). Participants also indicated their current mood state (as in Studies 1 and 2). Moreover, we measured whether participants thought that the ambiguity in the relation between the two actors would persist on a scale from 1 (*not likely*) to 7 (*very likely*).

#### *Results and discussion.*

We calculated one mean summarizing the two love items ( $r=.72$ ), and one mean summarizing the two dissolution items ( $r=.61$ ). As predicted, participants primed with a low construal level expected the evening to result in the final dissolution ( $M=4.34$ ,  $SD=1.17$ ) than in a revival of love ( $M=3.52$ ,  $SD=1.24$ ),  $t(37)=1.90$ ,  $p=.065$ ). Participants primed with a high construal level were less likely to expect the final dissolution

( $M=3.48$ ,  $SD=1.42$ ) and more likely to interpret the situation in terms of a reemergence of romantic feelings ( $M=4.80$ ,  $SD=1.41$ ),  $t(37)=3.15$ ,  $p=.003$ . The interaction was significant in a 2(construal) x 2(interpretation) mixed-model ANOVA,  $F(1,37)=12.68$ ,  $p=.001$ ,  $\eta_p^2 = .26$ . Including mood as a covariate led to the same interaction as the only significant effect,  $F(1,37)=13.17$ ,  $p<.001$ ,  $\eta_p^2 = .28$ . Importantly, level of construal did not influence whether participants perceived the ambiguity of the relationship to persist,  $t<1$ . This last result points to the fact that both groups of participant expect the situation to be solved, ruling out the assumption that a high level of construal leads participants to believe that any kind of situation will last for a long time.

### Final Remarks

In a set of three studies we demonstrated the relevance of construal level in the domain of interpreting ambiguous romantic situations. A high level of construal constantly led participants to interpret a relatively open situation between a male and a female as the start or the continuation of a love story. A low level of construal led participants to interpret the dating situation as a one-night stand and in an ambiguous break-up situation as a final dissolution.

Previously Förster et al. (2009, 2010) demonstrated that thinking about love versus sex has distinct consequences individual information processing. The present set of studies shows that the reverse link also works. Not only does love prime a high level of construal, but a high level of construal also seems to increase the likelihood that individuals “see” love in an ambiguous interpersonal situation. The activation of sex does lead to activation of a low level of construal, while a low level of construal also leads to the interpretation of the same situation as leading to a one-night stand. Importantly

Studies 1 and 2 rely on a match between the two concepts love and sex and the romantic scenario. Both concepts are applicable to the situation. Much like in earlier research on the applicability of primes in person perception (Higgins, 1989) we assume that an activated information processing style only exerts influence within a matching situation. The ambiguity of the situation we provided might be a crucial factor determining the effect. This becomes apparent in Study 3. Here, love is still a relevant concept while the definite end of the relationship is the opposite outcome of the situation.

Our studies can be viewed as a first hint that construal level does not only guide decision making (Trope & Liberman, 2003; 2010) but can be viewed as an important determinant of social perception. Much like previous research on accessibility effects (e.g. Srull & Wyer, 1979) level of construal guides our perception in fundamental ways. It is an important enterprise to explore these effects beyond the context used in our studies and to establish boundary conditions.

It is also possible that similar processes operate, when people make inferences about themselves in interpersonal situations, affecting their feelings. The current scenarios do not involve the self, but two unfamiliar others. Would our emotions be affected by perceptual and conceptual scope? Would we think that our date loves us when we happen to think of high-level construals? Would we ourselves fall in love, when thinking abstractly? Our research may inspire many more research questions examining interactions between cognitive and perceptual styles and feelings.

### References

- Aron, A., & Aron, E. N. (1986). *Love as expansion of the self: Understanding attraction and satisfaction*. New York: Hemisphere.
- Chapdelaine, A., Kenny, D.A., & LaFontana, K.M. (1994). Matchmaker, matchmaker, can you make me a match? Predicting liking between two unacquainted persons. *Journal of Personality and Social Psychology*, *67*, 83–91.
- Diamond, L. M. (2003). What does sexual orientation orient? A biobehavioral model distinguishing romantic love and sexual desire. *Psychological Review*, *110*, 173-192.
- Diamond, L. M. (2004). Emerging perspectives on distinctions between romantic love and sexual desire. *Current Directions in Psychological Science*, *13*, 116-119.
- Downey, G., Freitas, A.L., Michaelis, B., & Khouri, J. (1998). The self-fulfilling prophecy in close relationships. *Journal of Personality and Social Psychology*, *75*, 545-560
- Eastwick, P. W., & Finkel, E. J. (2008). Sex differences in mate preferences revisited: Do people know what they initially desire in a romantic partner? *Journal of Personality and Social Psychology*, *94*, 245-264.
- Förster, J. (2010). How love and sex can influence recognition of faces and words: A processing model account. *European Journal of Social Psychology*, *40*, 524-535.
- Förster, J. & Dannenberg, L. (2010). GLOMOsys: A Systems Account of Global versus Local Processing. *Psychological Inquiry*, *21*, 175-197.

- Förster, J., Epstude, K., & Özsel, A. (2009). Why love has wings and sex has not: How reminders of love and sex influence creative and analytic thinking. *Personality and Social Psychology Bulletin*, *35*, 1479-1491.
- Förster, J., Özsel, A., & Epstude, K. (2010). How love and lust change people's perception of partners and relationships. *Journal of Experimental Social Psychology*, *46*, 237-246.
- Freitas, A. L., Gollwitzer, P. M., & Trope, Y. (2004). The influence of abstract and concrete mindsets on anticipating and guiding others' self-regulatory efforts. *Journal of Experimental Social Psychology*, *40*, 739-752.
- Gagné, F & Lydon, J. (2001). Mindset and close relationships: When bias leads to inaccurate predictions. *Journal of Personality and Social Psychology*, *81*, 85-96.
- Fujita, K., Trope, Y., Liberman, N., & Levin-Sagi, M. (2006). Construal levels and self-control. *Journal of Personality and Social Psychology*, *90*, 351-367.
- Hatfield, E., & Rapson, R. L. (1995). *Love and sex: Cross-cultural perspectives*. New York: Allyn and Bacon.
- Hatfield, E., & Sprecher, S. (1986). *Mirror, mirror: The importance of looks in everyday life*. New York: SUNY Press.
- Higgins, E. T., Rholes, W. S., & Jones, C. R. (1977). Category accessibility and impression formation. *Journal of Experimental Social Psychology*, *13*, 141-154.
- Higgins, E. T. (1989). Knowledge accessibility and activation: Subjectivity and suffering from unconscious sources. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended thought: The limits of awareness, intention, and control* (pp. 75-123). New York: Guilford Press.

- Liberman, N., & Trope, Y. (2008). The psychology of transcending the here and now. *Science*, *322*, 1201-1205.
- McCulloch, K. C., Ferguson, M. J., Kawada, C. C. K., & Bargh, J. A. (2008). Taking a closer look: On the operation of nonconscious impression formation. *Journal of Experimental Social Psychology*, *44*, 614-623.
- Srull, T. K., & Wyer, R. S., Jr. (1979). The role of category accessibility in the interpretation of information about persons: Some determinants and implications. *Journal of Personality and Social Psychology*, *37*, 1660-1672.
- Strack, F., Schwarz, N., & Gschneidinger, E. (1985). Happiness and reminiscing: The role of time perspective, affect, and mode of thinking. *Journal of Personality and Social Psychology*, *49*, 1460-1469.
- Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review*, *110*, 403-421.
- Trope, Y., & Liberman, N. (2010). Construal level theory of psychological distance. *Psychological Review*, *117*, 440-463.
- Uleman, J.S., Newman, L.S., Moskowitz, G.B. (1996). People as flexible interpreters: Evidence and issues from spontaneous trait inference. *Advances in Experimental Social Psychology*, *28*, 211-279.