



## The Thermometer of Social Relations: Mapping Social Proximity on Temperature

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The Thermometer of Social Relations: Mapping Social Proximity on Temperature

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## Thermometer of Social Relationships 2

## Abstract

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7 “Holding *warm* feelings towards someone” and “giving someone the *cold* shoulder” both  
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9 indicate different levels of social proximity. In the current article, we show effects that go  
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11 beyond these *metaphors we live by* (Lakoff & Johnson, 1999). In three experiments, we show  
12  
13 how warmer conditions induce (1) increased social proximity, (2) more concrete language  
14  
15 use, and (3) a more relational focus as compared to colder conditions. Different temperature  
16  
17 conditions were created by either handing participants warm or cold beverages (Experiment  
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19 1) or placing them in comfortable warm or cold ambient conditions (Experiments 2 and 3).  
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21 These studies corroborate recent findings from (grounded) cognition and go beyond Lakoff  
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23 and Johnson’s (1999) original proposal. Our studies show the systemic interdependence  
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25 between language, perception, and social proximity; namely, how environmentally induced  
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27 conditions shape not only language use, but also the perception and construal of social  
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29 relationships.  
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### The Thermometer of Social Relations: Mapping Social Proximity on Temperature

The concepts of temperature and social proximity are often jointly expressed in metaphors such as “holding *warm* feelings towards someone” or “giving someone the *cold* shoulder”. Where do such sayings stem from? Lakoff and Johnson (1999) proposed under *embodied realism* that concrete experiences (e.g. temperature) ground abstract concepts (e.g. affection). Metaphors summarized by “*warmth is affection*” thus offer a conceptualization of one of the most central abstract ideas for human beings; namely, when judging others, people predominantly judge on ‘warmth’ (Asch, 1946; Fiske, Cuddy, & Glicke, 2007). However, rather than affection which has been shown to be induced by warmth (Williams & Bargh, 2008a), we address the more broadly defined term social proximity. In the current article, we examine how notions of temperature ground the abstract idea of affection by scrutinizing the effects of temperature alterations on social proximity, language, and perception of reality.

The comprehension of abstract thought processes has presented a challenge in recent attempts to link thought, perception, and action. An answer to this is to be found in the use of sensory-based metaphors, which allow people to represent and communicate abstract concepts that would otherwise have no link to sensorimotor experiences. Diverse studies have shown that abstract thought includes more grounding in physical and perceptual content than oftentimes assumed (cf. Barsalou, 2008; Glenberg, 1997).

Embodied grounding has been shown in many instances, for example in relation to memory (Glenberg, 1997) and, important for this article, abstract concepts (such as time, Boroditsky & Ramscar, 2002; and even culture, Leung & Cohen, 2007). For instance, Boroditsky and Ramscar (2002) demonstrated that participants’ experience of space influenced time perception; they asked participants when Wednesday’s meeting would take place if it was moved *forward* two days. The more one’s body had moved forward, the more

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4 one was likely to answer Friday as compared to Monday. Even highly complex cultural  
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6 abstract concepts affect the psychological placement of the body; Asian Americans are more  
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8 likely to narrate from a friend's physical perspective than their own as compared to European  
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10 Americans (Leung & Cohen, 2007). In this latter study, when participants were reflecting  
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12 about abstract concepts, they physically simulated the concrete experiences associated with  
13  
14 the abstract ideas. In the current line of research, we investigate the reverse: do physical  
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16 experiences associated with an abstract idea influence perceptual focus and language use?  
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22 This question is derived in part from Lakoff and Johnson's (1999) argument about the  
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24 purpose of metaphors, namely that the perceptual content of concrete experiences are used to  
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26 ground abstract ideas (Barsalou, 2008; Lakoff & Johnson, 1999). In other words, abstract  
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28 concepts and concrete experiences that are jointly expressed in a metaphor are co-  
29  
30 experienced. In the case of the example driving the research reported here, namely "*warmth is*  
31  
32 *affection*", Lakoff and Johnson (1999, p. 45 – 60) argue that this co-experience is primary;  
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34 everybody experiences – as a baby - the feeling of being held affectionately by one's mother,  
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36 inducing a warm sensation. This association is underlined by evidence that the insular cortex  
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38 is involved in processing both psychological and physical warmth (q.v. Williams & Bargh,  
39  
40 2008a). As a result, people express and share the abstract notion of affection in terms of the  
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42 co-experienced sensation of warmth. Examples are abundant in mainstream culture; 'the cold  
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44 shoulder', and 'a cold fish' are examples related to social distance, while 'warm embrace',  
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46 and 'giving a warm welcome' are metaphors representing social proximity.  
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#### 52 Overview

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55 Based on this, we propose that manipulating ambient temperature should influence the  
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57 abstract idea of social proximity. We define social proximity as *perceived* distance between  
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59 self and other, which is different from physical distance (see also Williams & Bargh, 2008b).  
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5 In the first experiment we examine the hypothesis that the experience of perceived social  
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7 proximity or distance will be a function of comfortable temperature increases or decreases  
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9 respectively.

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11 In the second experiment, we examine the effect of a different temperature  
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13 manipulation on perceived social distance and extend its implications by examining  
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15 systematic differences in language use in an ostensibly independent study. This is derived  
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17 from research showing that social proximity and distance are manifested in language, with  
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19 distance showing more abstract language use and proximity more concrete language use  
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21 (Semin, 2007; see also Construal Level Theory; Liberman, Trope, & Stephan, 2007). The  
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23 final study is designed to extend these findings by examining the consequences of differences  
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25 in ambient temperature not only for language use but also perceptual processes. The argument  
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27 here is that if warmth induces a focus on relationships and reduces social distance, then it  
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29 should also affect perceptual processes. In contrast to a condition in which temperature is  
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31 reduced, we examine if increased ambient temperature induces a predominantly relational  
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33 perceptual focus relative to when ambient temperature is low.

#### 40 Experiment 1: Warming and Cooling of Social Relationships

41  
42 The first experiment investigated the hypothesis that an increase in temperature within  
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44 a comfortable range should increase perceived social proximity. This was inspired by recent  
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46 research by Williams and Bargh (2008a), who used Asch's (1946) impression formation  
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48 paradigm to show that third parties were seen as warmer and friendlier after they had held a  
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50 hot cup of coffee as compared to an iced cup of coffee. In our study, we introduced a new  
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52 dependent variable: participants were handed either a warm or cold beverage and were then  
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54 asked to rate perceived social proximity to another person.  
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#### 59 *Method*

##### 60 *Participants*

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Thirty-three students (84.8% female)<sup>1</sup> were recruited via leaflets and paid 2 Euros for participation. Participants were randomly allocated to the cold (16) or the warm (17) condition.

### *Procedure*

Participants entered the laboratory and were asked to hold the beverage temporarily, while the experimenter ostensibly installed the questionnaire on the laptop. They then rated themselves and a person they know on the Inclusion of Other in Self-scale (IOS; Aron, Aron, & Smollan, 1992) after filling out an unrelated questionnaire. We used a seven-point version of the IOS-scale, with two circles indicating a perceived degree of overlap between self and other. The more overlap between the circles (and the higher the score), the higher the inclusion, indicating higher social proximity. After the experiment, participants were thanked and debriefed via an orally-administered, funneled debriefing as recommended by Bargh and Chartrand (2000); no participant indicated suspicion towards the experiment's purpose.

### *Results*

An independent samples t-test revealed that participants who were handed a warm beverage ( $M = 5.12$ ,  $SD = 1.22$ ) found the overlap to a known other to be significantly greater than participants who were handed a cold beverage ( $M = 4.13$ ,  $SD = 1.41$ ),  $t(32) = -2.17$ ,  $p_{rep} = .93$ , Cohen's  $d = .78$ , confirming our hypothesis that the warm condition induced more social proximity than the cold condition.

### Experiment 2: Linguistic Warming and Cooling Effects

The second study was designed to generalize the manipulation to ambient temperature and extend its effects to language use. Whereas the prediction for perceived social distance remained identical, the target of perceived social distance was now a specific person (the experimenter) instead of an idiosyncratic choice by the participants as in the previous experiment.

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5 Prior to measuring perceived social distance to the experimenter, we first examined  
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7 language use as a function of differences in ambient temperature. If an increase in ambient  
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9 temperature would induce social proximity relative to when ambient temperature is low then  
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11 we would expect language use to mediate this relationship such that the description of social  
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13 events is relatively more concrete in warmer conditions. This hypothesis is derived from two  
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15 sources of evidence. First, research on language use in independent and interdependent  
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17 cultures has revealed that when the self is anchored in interdependencies and thus puts the self  
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19 in closer proximity with others then they tend to use more concrete language relative to  
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21 cultures that put distance between self and others (Maass, Karasawa, Politi, & Suga, 2006;  
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23 Semin, Görts, Nandram, & Semin-Goossens, 2002). Second, construal level theory has  
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25 marshaled considerable empirical evidence revealing a systematic tendency to represent  
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27 proximity concretely and distance abstractly (see Liberman, et al., 2007, for a review), a  
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29 relationship which also holds for language use in representing social distance (see Semin,  
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31 2007, for a review).  
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### 37 *Method*

#### 38 *Participants*

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41 Fifty-two students ( $M_{\text{age}} = 21.30$ ,  $SD_{\text{age}} = 2.70$ , 55.8% female)<sup>1</sup> were recruited via  
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43 leaflets and paid 3 Euros for 10-15 minutes participation. Participants were assigned randomly  
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45 to the cold (27) or the warm condition (25).  
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#### 49 *Procedure*

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52 Upon entering the laboratory, participants were seated in the room, which was either  
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54 cold (15–18 degrees Celsius) or warm (22–24 degrees Celsius).<sup>2</sup> They first viewed a film  
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56 fragment lasting thirty-nine seconds showing animated chess figures making movements  
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58 unrelated to chess and were asked to give a description of “in their own words” what they had  
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60 seen in the film fragment (cf. Stapel & Semin, 2007, film fragment included in the additional

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4 material section).<sup>3</sup> This language production was coded for abstraction level by a rater blind to  
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6 participants' experimental condition and according to Semin and Fiedler's LCM coding  
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8 manual (e.g. 1988, downloadable at <http://tinyurl.com/6nwp28>).  
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11 The model distinguishes four categories, which can represent the very same event in  
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13 four different ways ranging from a very concrete description to a very abstract one. Thus, the  
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15 same event can be described as "John *punched* David", "John *hurt* David", "John *hates*  
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17 David" or "John is *aggressive*". These four predicates correspond respectively to the four  
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19 linguistic categories in the model which are *Descriptive Action Verbs* (DAV), *Interpretative*  
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21 *Action Verbs* (IAV), *State Verbs* (SV), and *Adjectives* (Adj.) (for exact definitions and  
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23 examples, see Table 1; linguistic categories ranging from concrete on the top to abstract on  
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25 the bottom). These linguistic categories have been shown to be represented on a concrete-  
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27 abstract dimension (Semin & Fiedler, 1988; 1989). In line with the model, verbs and  
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29 adjectives were counted and scored in the following manner: DAV=1, IAV=2, SV=3, and  
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31 Adj.=4. Their summed total was divided by the weighted total number of predicates, to give  
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33 the mean abstraction level. This score could thus vary from 1 (concrete) to 4 (abstract) and  
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35 provided a measurement of the abstraction level of participants' description of the film  
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37 fragment. Intercoder reliability was obtained over 20% of the stories and was satisfactory  
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39 (Cohen's  $\kappa = .66$ ). Finally, participants completed the IOS-scale, now in relation to the  
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41 experimenter. Participants were thanked and debriefed via a funneled debriefing; no  
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43 participant indicated suspicion towards the experiment's purpose.  
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### 51 52 *Results*

53 An independent samples t-test confirmed the hypothesis that 'warm' participants  
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55 described the fragment more concretely ( $M = 2.23$ ,  $SD = .49$ ) than 'cold' participants, ( $M =$   
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57  $2.64$ ,  $SD = .55$ ),  $t(50) = 2.78$ ,  $p_{\text{rep}} = .97$ , Cohen's  $d = .79$ . We analyzed the IOS measure in an  
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59 ANOVA, inserting experimenter as a categorically independent covariate, since three  
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5 different experimenters were involved in the data collection. The data replicated findings from  
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7 the first experiment; 'warm' participants ( $M = 2.63$ ,  $SD = 1.52$ ) felt significantly closer to the  
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9 experimenter than 'cold' participants ( $M = 2.08$ ,  $SD = 1.04$ ),  $F(1, 48) = 2.95$ ,  $p_{\text{rep}} = .88$ ,  $\eta^2 =$   
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.058. A bootstrap-analysis showed that when inserting language abstraction ( $t(50) = -.62$ ,  $p_{\text{rep}} = .67$ ) the effect of condition on IOS decreased ( $t(50) = 1.67$ ,  $p_{\text{rep}} = .82$ ), indicating partial mediation (Preacher & Hayes, 2008). Analyzing the indirect effect (CI = 95%, 5000 resamples) showed that this partial mediation was robust,  $p_{\text{rep}} = .89$  ( $CI_{\text{lower}} = -.71$ ,  $CI_{\text{upper}} = .67$ ).

### Experiment 3: Warm Similarities and Cold Rules

In a third study, we extended our findings by examining if an increase in ambient temperature would induce a predominantly relational perceptual focus relative to when ambient temperature is low. This prediction was based on the following reasoning. Concrete language use has been shown not only to signal social proximity (Liberman, et al., 2007; Semin, 2007), but also a perceptual focus on relations between objects and a detail-oriented analytic processing style (Beukeboom & Semin, 2006) in contrast to abstract language.

A converging argument is to be found in cultural psychology, which suggests that cultures emphasizing interdependence (placing the self in general in higher social proximity to others) are more likely to emphasize relationships, whereas cultures emphasizing independence (placing the self in general in lower social proximity to others) are more likely to emphasize properties (Nisbett & Miyamoto, 2005). Similar conclusions have been drawn from a wide array of research; interdependents do not only categorize objects on the basis of interrelatedness (Ji, Peng, & Nisbett, 2000), but also perceive Rorschach cards more as a pattern (Abel & Hsu, 1949), and detect more changes in relationships between objects (Masuda & Nisbett, 2001), while independents categorize objects on the basis of shared

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5 categories (and on features of the object), focus on details, or detect changes of central  
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7 properties of objects. In line with Maass et al. (2006) and Semin et al. (2002), Nisbett and  
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9 Miyamoto (2005) argue that this focus results from socialization processes: ‘interdependent’  
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11 mothers use more verbs in order to stress relationships whereas ‘independent’ mothers use  
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13 more adjectives in order to label properties and categories (see also Tardif, Gelman, & Xu,  
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15 2003).  
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19 We used the same type of manipulation as in Experiment 2 and included a perceptual  
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21 focus task. Subsequently, participants were asked to describe the same film fragment as in  
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23 Experiment 2. Based on the above reasoning, and on the fact that warmer temperatures led to  
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25 more concrete language use (Experiment 2), we hypothesized that a warmer temperature  
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27 would produce a focus on relations or ‘interdependence’ between objects portrayed in our  
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29 perceptual focus task, mediated by language use.  
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### 32 33 *Method*

#### 34 35 *Participants*

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37 Thirty-nine participants ( $M_{\text{age}} = 21.05$ ,  $SD_{\text{age}} = 3.27$ , 43.6% female)<sup>1</sup> were recruited via  
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39 leaflets at Utrecht University and paid 3 Euros for 10-15 minutes participation. They were  
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41 randomly assigned to the cold (17) the warm (22) condition.  
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#### 44 45 *Procedure*

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47 Participants were presented with 24 randomized trials of a perceptual focus-task,  
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49 modeled after Kimchi and Palmer (1982). They examined a target object, for example, a  
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51 triangle (larger pattern) made up of three smaller triangles (properties). They were to judge  
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53 which of two alternative figures was most similar to the target object: for instance, a larger  
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55 pattern in the shape of a triangle made of three smaller figures (squares) (relational or  
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57 interdependent perspective, 2 points) or a larger square made up of four triangles (property or  
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59 independent perspective, 1 point). For an example trial, see Figure 1. In 12 of the 24 trials, the  
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4 target and the smaller figures constituting the target had the same shape; in the other 12 they  
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6 did not (e.g. the target is a larger triangle constituted by small squares).<sup>4</sup> Participants then  
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8 described the film fragment from Experiment 2. Again, participants were thanked and  
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10 debriefed via a funneled debriefing; no participant indicated suspicion towards the  
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12 experiment's purpose.  
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### 16 17 *Results*

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19 We performed a multiple regression analysis with temperature-condition as  
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21 independent variable. This analysis confirmed that 'warm' participants had a greater relational  
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23 perspective than 'cold' participants,  $t(38) = 2.25$ ,  $p_{\text{rep}} = .94$ ,  $B = .082$ ,  $sr = .345$ , and that  
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25 'warm' participants used more concrete language than 'cold' participants,  $t(38) = -3.53$ ,  $p_{\text{rep}} =$   
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27  $.99$ ,  $B = -.451$ ,  $sr = -.526$ . We measured and scored event descriptions according to the  
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29 method outlined in Experiment 2, with higher scores indicating higher abstraction levels  
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31 (intercoder reliability was high, Cohen's  $\kappa = .77$ ). When including both language abstraction  
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33 and temperature-condition in the regression analysis, more concrete language predicted a  
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35 more relational focus,  $t(38) = -2.41$ ,  $p_{\text{rep}} = .95$ ,  $B = -.107$ ,  $sr = -.346$ , while the effect of the  
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37 temperature-condition became nonsignificant,  $t(38) < 1$ ,  $p_{\text{rep}} = .72$ , thereby meeting Baron  
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39 and Kenny's (1986) all four conditions for full mediation. Additional analyses indicated that  
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41 this mediator was robust (Sobel's test = 3.47,  $p_{\text{rep}} = .99$ ).<sup>5</sup>  
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### 48 *General Discussion*

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50 In this article, we examined the metaphorical mapping of perceived social proximity  
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52 on temperature and the interface between ambient temperature, social relationships, language,  
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54 and perception in a relational context. Our findings lend support to Lakoff and Johnson's  
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56 (1999) embodied realism as well as Williams and Bargh's (2008a) and Zhong and  
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58 Leonardelli's (2008) evidence that temperature differences have a direct relation with social  
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4 relations. We show how temperature differences are directly tied to social proximity.

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7 Furthermore, it is possible to argue that the temperature manipulation used by Williams and  
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9 Bargh (2008a) primed the concept of warm or cold and that the pattern of impression  
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11 formation results they report are driven by semantic similarity inferences (Semin, 1989). This  
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13 leaves the room for a semantically driven explanation, based on word associations between  
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15 warmth and affection. Such an alternative explanation is unlikely to account for the systemic  
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17 relationship demonstrated in the current set of studies; namely, how environmentally induced  
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19 conditions (differences in temperature) shape not only language use, but also perception and  
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21 the construal of social relationships. In other words, the current evidence is difficult to  
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23 interpret with a representational or amodal account.  
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28 Our findings have a number of implications. One obvious implication is the effect of  
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30 lab temperatures on social cognitive processes across experimental studies, such as those  
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32 examining the effect of mood on processing (e.g., Isen, 1987; Martin & Clore, 2001; Schwarz  
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34 & Clore, 1996). A further issue that the current findings raise is related to the repeated finding  
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36 that warmer conditions induce both concrete event descriptions *and* relational foci. One could  
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38 potentially argue that our results contradict prior research, which investigates perceptual foci  
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40 on the *form* (or *shape*) versus *texture* (or *material*) of the elements used in our perceptual  
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42 focus task (cf. Kimchi & Palmer, 1982). Stapel and Semin (2007) demonstrate how priming  
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44 individuals with concrete language indeed induces a focus on the *texture* of the materials. This  
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46 corroborates research that found that interdependents (using more concrete language) are  
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48 more focused on situational circumstances than independents (e.g. Morris & Peng, 1994).  
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50 However, we demonstrated that putting participants in higher temperature rooms affected the  
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52 use of relationships in making similarity judgments, thereby making salient the configuration  
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54 of the relationship between objects. This is conceptually different from the debate on form or  
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56 texture (as indicated by Kimchi & Palmer, 1982). Indeed, our manipulation induced a  
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5 configurational focus on relational patterns versus properties (Abel & Hsu, 1949; Chiu, 1972;  
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7 Ji, Peng, & Nisbett, 2000; Masuda & Nisbett, 2001; Nisbett & Miyamoto, 2005).

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9 The third and central implication holds for embodied grounding. Barsalou (2008)  
10 indicated the difficulties associated with grounding abstract concepts. Lakoff and Johnson  
11 (1999) argue that these abstract concepts are grounded in concrete experiences. Some  
12 evidence exists for this notion (e.g. Boroditsky & Ramscar, 2002). Our research appends  
13 further to this evidence in that “the cognitive system evolved to support action in specific  
14 situations”, stressing “interactions between perception, action, the body, the environment, and  
15 other agents” (Barsalou, 2008, p. 2). An essential element of human functioning, interpersonal  
16 distance, is grounded in temperature; warmer conditions indicate social proximity, a focus on  
17 actions, and on relational aspects of reality. We thus provide evidence for grounding social  
18 proximity in temperature. Furthermore, other research (Zhong & Leonardelli, 2008) suggests  
19 a reverse relationship: social exclusion leaves people to actually *feel* colder, thereby possibly  
20 confirming Lakoff and Johnson’s (1999) proposal of primary metaphor.  
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37 Finally, the understanding of the metaphorical mapping of social proximity on  
38 temperature travels beyond the scope of (social) psychology. It is not coincidental that many  
39 of the links we draw between environment, relationships, and perception stem from cultural  
40 psychology. One of the most prominent theories in the development of societies was furthered  
41 by Diamond (1997). He elaborately discussed how proximal factors shape human behavior.  
42  
43 The present line of research offers a careful step in understanding the way in which proximal  
44 factors influence(d) the adaption for action of the cognitive system, in which manner, in  
45 which situation. Going beyond descriptive analyses of temperature or other concrete  
46 experiences, understanding the social-cognitive processes underlying effects of these  
47 experiences is essential in further comprehending human adaption for action.  
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## Footnotes

<sup>1</sup>In all three experiments we only analyzed data from one cultural group, namely native Dutch participants. Depending on cultural background, participants can vary on perceptual focus (Nisbett & Miyamoto, 2005), language use (Semin et al., 2002), or self-other overlap (Üskül, Hynie, & Lalonde, 2004).

<sup>2</sup>Van Ooijen, Lichtenbelt, Van Steenhoven, and Westerberp (2004) suggested that the used temperature-ranges alter metabolic responses (offering alternative explanations due to performance), but only after a 45-minute exposure. Hence, our brief exposure should not affect performance unrelated to our prediction.

<sup>3</sup>Due to the measurement's sensitivity, we chose this neutral film fragment in order to avoid valence problems or additional error to for example randomly imagined persons or incongruent sex with experimenters. Observing in- versus outgroup members leads to different abstraction levels in language use, depending on valence judgments (Maass, Salvi, Arcuri, & Semin, 1989). Our analyses demonstrate that stories' valence was unrelated to language abstraction (Experiment 2,  $t(50) = -1.65$ ,  $p_{\text{rep}} = .87$ ; Experiment 3,  $t(38) = .275$ ,  $p_{\text{rep}} = .58$ ).

<sup>4</sup>The alternative-type shown in the perceptual focus-task (similar versus different figures) could have influenced participants' alternative-choice. A repeated-measures ANOVA revealed however that the alternative type used in the perceptual-focus task (similar versus different figures) had no systematic effects on participants' choices related to our manipulation; conditions-alternative type interaction was not significant,  $F(4, 35) < 1$ ,  $p_{\text{rep}} = .65$ .

<sup>5</sup>In the current experiment, we also included participants' perception of temperature as a manipulation check, measured *after* our main dependent variables. Our manipulation proved successful as participants perceived the colder room ( $M = 16.64$ ,  $SD = 1.52$ ) as colder than the

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4 warmer room ( $M = 22.56$ ,  $SD = .84$ ),  $F(1, 38) = 208.24$ ,  $p_{\text{rep}} = .99$ ,  $\eta^2 = .849$ . Moreover,  
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7 females ( $M = 18.94$ ,  $SD = 4.85$ ) perceived the room in general as colder than males ( $M =$   
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9  $20.09$ ,  $SD = 2.71$ ),  $F(1, 38) = 4.23$ ,  $p_{\text{rep}} = .92$ ,  $\eta^2 = .108$ , with no significant interaction ( $F(1,$   
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11  $38) = 2.65$ ,  $p_{\text{rep}} = .87$ ), introducing variance between conditions unrelated to our hypotheses.

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14 We therefore controlled for sex in all analyses in Experiment 3.  
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For Review Only

## Thermometer of Social Relationships 20

Table 1

*Definitions and example criteria of interpersonal predicates defined by the Linguistic Category*

*Model (LCM), adapted from Coenen, Hedebouw, and Semin (2006).*

| Category | Examples                     | Definition  |
|----------|------------------------------|---|
| DAV      | Hit, yell, walk              | Verb that refers to a single, specific action with a clear beginning and end, and with a physically invariant feature                           |
| IAV/SAV  | Help, tease, amaze,          | Verbs that refer to a general group of behaviors  |
|          |                              | anger with a clear beginning and clear end, without a physically invariant feature, referring to either an action or its emotional consequences |
| SV       | Admire, hate, appreciate     | Verb that refers to an enduring cognitive or emotional state with no clear beginning and end  |
| Adj.     | Honest, reliable, aggressive | Adjectives that refer to a characteristic or feature qualifying a person  |

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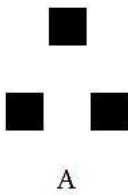
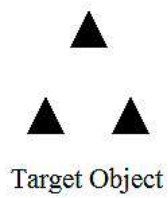
## Figure Caption

*Figure 1.* Example item of the perceptual focus task. “A” is an example of a relational perspective, “B” of a property perspective.

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Example item of the perceptual focus task. "A" is an example of a relational perspective, "B" of a property perspective.  
196x118mm (96 x 96 DPI)

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