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Interpersonal Similarity as a Social Distance Dimension: Implications for Perception of Others' Actions

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Abstract

Building on the assumption that interpersonal similarity is a form of social distance, the current research examines the manner in which similarity influences the representation and judgment of others' actions. On the basis of a construal level approach, we hypothesized that greater levels of similarity would increase the relative weight of subordinate and secondary features of information in judgments of others' actions. The results of four experiments showed that compared to corresponding judgments of a dissimilar target, participants exposed to a similar target person identified that person's actions in relatively more subordinate means-related rather than superordinate ends-related terms (Experiment 1), perceived his or her actions to be determined more by feasibility and less by desirability concerns (Experiment 3), and gave more weight to secondary aspects in judgments of the target's decisions (Experiment 2) and performance (Experiment 4). Implications for the study of interpersonal similarity, as well as social distance in general, are discussed.

Keywords

interpersonal similarity; social distance; construal level theory; social judgment; mental representations

Imagine a close friend giving a job talk. Now imagine a stranger giving the same job talk. What type of representation would you construct for this action? Would you represent it in terms of an abstract superordinate goal (for instance, communicating one's research ideas) or rather bring to mind the subordinate, concrete means by which to achieve the goal (such as presenting power point slides)? And would your representation include primary and central aspects related to this action (for instance, the research question) or more secondary information (such as the slides' background design)?

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In the current investigation we explore the effects of the social distance of a target on the perception of the target's actions. Specifically, we examine how the perceptions of others' actions depend upon one form of social closeness, namely, interpersonal similarity. We propose a construal level mechanism whereby greater levels of similarity predispose one to represent and process information about others' actions less in terms of their superordinate and primary features relative to their subordinate and secondary features. Consequently, similar others' actions compared to dissimilar others' actions, would be evaluated and perceived as determined more by subordinate and secondary aspects relative to superordinate and primary aspects.

We begin with the assumption that interpersonal similarity is a form of social distance, with similar others being perceived as socially closer to oneself than dissimilar ones (e.g., Heider, 1958; Miller, Downs, & Prentice, 1998; Tesser, 1988). As a form of social distance, we argue, interpersonal similarity has important implications for information processing about others. Drawing on Construal Level Theory (CLT; Liberman, Trope, & Stephan, 2007; Trope & Liberman, 2003; Trope, Liberman, & Wakslak, 2007), we propose that people construct different representations of similar and dissimilar individuals even when they are provided with the same information about those individuals. These representations, in turn, affect people's judgments about similar and dissimilar others' actions. We elaborate on our reasoning below.

The idea that similarity is a form of social distance has been shared by many researchers (e.g., see, Miller et al., 1998). For example, in his seminal book “The Psychology of Interpersonal Relations,” Heider (1958) argued that interpersonal similarity, be it similarity in attitudes, personality characteristics or background variables, promotes forming unit relations between a perceiver and a target. A unit relation refers to a sense of “belongingness,” or closeness, between the perceiver and the target on the relevant dimension. As Heider (1958) put it, “the parts of such units are belonging together in a specially close way” (p. 201). More recently, the assumption that social closeness is related to similarity has been adopted by researchers investigating the effects of closeness on self-evaluation. For example, Tesser and colleagues' research on self-evaluation maintenance processes has operationalized closeness in terms of similarity to others on various dimensions, such as age, gender, and personality traits (e.g., Tesser & Campbell, 1980; Tesser & Paulhus, 1983). The assumption that similarity conveys social closeness has also formed the basis for research on comparison processes with respect to close and distant others (e.g., Brewer & Weber, 1994; Brown, Novick, Lord, & Richards, 1992; Mussweiler, Rüter, & Epstude, 2004).

Although the relationship between interpersonal similarity and social closeness has been widely recognized in the social psychological literature, the implications of this relationship for the processing of information about similar and dissimilar others have not been fully investigated. The present research explores these implications using Construal Level Theory of psychological distance (Liberman et al., 2007; Trope & Liberman, 2003; Trope et al., 2007) as an organizing framework. CLT argues that people form different mental representations of the same object depending on the object's psychological distance. An object is psychologically distant when it is not part of one's direct experience in the here and now and therefore has to be construed (see Liberman et al., 2007). For example, my next month's vacation (a temporally distant stimulus) cannot be directly perceived, but it may be imagined. Likewise, the current experiences of another person (a socially distant stimulus) cannot be directly experienced but need to be construed. The basic premise of CLT is that as psychological distance from an object (temporal, spatial, or social) increases, people use greater (i.e., higher) levels of construal to represent information about the object. High-level construals convey an object's meaning by forming a more abstract, simple representation of it. This process of abstraction involves retaining only features considered superordinate or primary to the object while omitting those that are perceived to be subordinate or secondary to it (see,

also, Rosch & Lloyd, 1978; Schul, 1983; Semin & Fiedler, 1988; Smith, 1998). Low-level construals, on the other hand, are more concrete, and include features that are incidental. Low-level construals thus include more subordinate and secondary features than high-level construals. According to CLT, then, people's representation of distant objects would mainly consist of superordinate and primary features of the objects. Yet as distance decreases, a more concrete and detailed representation of the object would be formed, with more subordinate and secondary features included in the representation.

Why do people use higher level construals to represent information about psychologically distant objects? According to CLT, this may evolve from the relationship between psychological distance and people's knowledge about low- and high-level features of objects (see, Liberman et al., 2007; Trope & Liberman, 2003; Trope et al., 2007). Typically, details about the concrete, secondary features of psychological distant objects and the specific context involved (i.e., low-level information) is unavailable or unreliable. Consequently, we are forced to form a higher level construal - i.e., an abstract, superordinate representation that conveys the central features - of distant objects compared to more proximal ones. Thus, an association is likely to be established between psychological distance and high-level construal. This association is overgeneralized, leading people to use high-level processing orientation for distal objects and low-level processing orientation for proximal objects even in situations where one has the same knowledge regarding distal and proximal objects.

CLT's prediction that distant objects would be construed on a higher level has been supported by research on temporal distance (e.g., Liberman, Sagristano, & Trope, 2002; Liberman & Trope, 1998; Trope & Liberman, 2000), spatial distance (Fujita et al., 2006; Henderson, Fujita, Trope, & Liberman, 2006), hypotheticality (Wakslak, Trope, Liberman, & Alony, 2006), and power (Smith & Trope, 2006). In one paradigm that is particularly relevant to the present investigation, participants are presented with actions (e.g., “make a list”), and are asked to choose between a low level, subordinate, “how” descriptions of the action (e.g., “write things down”), and a high level, superordinate, why description of the same action (e.g., “get organized”). It has been found that participants use higher level, why descriptions for actions that are more distal in time (Liberman and Trope, 1998), space (Fujita et al., 2006), as well as for actions that are less likely (Wakslak et al., 2006). In another relevant study on central versus incidental concerns in inter-temporal preferences, Trope and Liberman (2000) varied the positive and negative value of primary features (e.g., a radio's sound) and secondary features (e.g., the radio's clock) of options and examined the weight of each of these construal features on participants' preferences. They found that primary concerns had relative less weight and secondary ones had relative greater weight in determining participants' near-future compared to distant-future preferences.

We expect that the overgeneralized association between psychological distance and level of construal would be evident in processing information about close and distant others. People have typically more low-level knowledge about socially closer others. One has more opportunities to observe the behavior of closer people and thus to accumulate more knowledge about contextual, specific (i.e., low-level) features about them (Jones & Nisbett, 1972). In addition, closer relationships ordinarily involve more intimate interactions and exposure to privileged information about the other's thoughts and feelings, and thus to a better sense of the other's complexities and depth of personality (e.g., Andersen, Glassman, & Gold, 1998; Andersen & Ross, 1984). People's mental representations of close others therefore include more concrete, detailed features than do their representations of more distant others, and their judgments about close others become associated with retrieval of lower level information (e.g., Andersen & Cole, 1990; Andersen et al., 1998; Idson & Miscel, 2001; Prentice, 1990). In contrast, the limited knowledge of low-level features regarding socially distant others typically requires one to represent information about these individuals more abstractly and to rely on

broad and central features in judgments related to their actions (e.g., Jones & Nisbett, 1972; Park & Rothbart, 1982).

These associations may lead individuals to rely on high-level processing in judgments of socially distant others and on lower level processing in judgments of close others even in situations where one has equal knowledge about distant and close others. In other words, we propose that not only do perceivers often have more information about close than distant others, but that they may also differ in the way they process the information available to them about close and distant others. Actions of a socially distant person would more likely be represented in terms of abstract and superordinate characteristics, such as traits, whereas the same actions performed by a close other would more likely be represented in terms of more concrete and subordinate features, such as contextualized behaviors (e.g., Idson & Mischel, 2001).

The proposed association between social distance and level of construal suggests novel predictions regarding the effects of interpersonal similarity on cognitive processing. Specifically, we argue that perceivers would form lower level construals of a similar than a dissimilar other even when information about these individuals is equally available or obtainable. Consequently, perceivers would place increasingly more weight on these low-level features relative to high-level features in judgments of similar compared to judgments of dissimilar others' actions. Stated differently, judgments of dissimilar others' actions would be based more unequivocally on high-level construal features whereas judgments of similar others' actions would show relatively less differentiation between low- and high-level construal features.

The present research thus aims to provide evidence for a construal level mechanism involved in the effects of interpersonal similarity on mental representation and judgments of others' actions. However, similarity and social closeness may affect information processing in other ways as well. For example, past research has found that people tend to like similar others more than dissimilar ones (e.g., Berscheid, 1985; Byrne, 1971; Byrne, Clore, & Worchel, 1966; Newcomb, 1956), and are typically more emotionally invested in close than distant others (e.g., Andersen et al., 1998; Aron, Aron, Tudor, & Nelson, 1991). One might therefore expect that people would be more involved in processing information about a similar than a dissimilar individual, and accordingly put more effort and thought into their judgments. Notwithstanding these important psychological processes, we propose that interpersonal similarity influences the level of construal by which others' actions are represented and judged independent of affect and motivation. Accordingly, the current experiments were constructed to investigate these distinct effects on the weight assigned to low- and high-level features. To examine possible affective and motivational effects of interpersonal similarity on cognitive processing, we included measures of liking, effort, and difficulty in all of the studies.

We conducted four studies in which participants judged either a similar or a dissimilar target on the basis of the same information about the target's actions and situation. In Experiment 1, we tested whether participants represented the targets' actions in terms of their superordinate features or subordinate features. Experiment 2 investigated the relative weight given to primary and secondary decision-related aspects when participants seek information that would help them predict a similar compared to a dissimilar target's decision. In Experiment 3 we investigated the extent to which desirability and feasibility concerns are perceived to be determinants of a similar compared to a dissimilar target's actions. In Experiment 4 we examined the effects of primary and secondary information on judgments of a similar and a dissimilar target's performance.

Experiment 1: Level of Action Identification

Actions can be categorized at different levels, from the details of how an action is executed to the meaning of an action that indicates why it is performed (Vallacher & Wegner, 1987; 1989). When representing an action in terms of how it is being done, one draws on the concrete means by which it is executed thereby moving to a subordinate action construal (e.g., "reading a book" is subordinate to "preparing for an exam" inasmuch as it answers how one prepares for an exam). One moves to a superordinate action construal by representing an action in terms of why it is being performed, as why aspects provide a more abstract and global description of actions (e.g., "getting a high grade" is superordinate to "preparing for an exam" inasmuch as it answers why one prepares for an exam). Moving to a superordinate why construal, as any abstraction, involves retaining the essential meaning of the action while omitting details that are rendered less important (e.g., the detail "book" can be replaced with "material on the internet" but "preparing for an exam" would still apply). In this way, categorizing an action in terms of its why (vs. how) aspects represents a higher level of construal.

In this experiment, we examined whether interpersonal similarity would affect the level by which actions are identified. From the current perspective, as similarity to others increases, representation of their actions should include more subordinate, how aspects relative to superordinate, why aspects. To test this prediction, participants read about a target person who attended either similar or different classes as themselves, and then imagined the target engaging in various activities. For each activity, participants indicated their preference between two alternate restatements: a subordinate action identification (a description emphasizing the means by which the action is performed) or a superordinate action identification (a description emphasizing the end for which the action is performed). We hypothesized that participants would prefer more subordinate (and hence less superordinate) action identifications for a similar target than for a dissimilar target.

Method

Participants—Twenty-four women and 10 men, all undergraduate students at New York University (mean age = 19), volunteered to take part in this study as part of a course requirement. Participants were randomly assigned to either the similar or dissimilar condition. In this, and in all other studies reported in this article, including gender as a factor in the model did not yield any significant effects, and thus gender was removed from the final analyses.

Materials and Procedure—Upon arrival, participants read that they are taking part in a study investigating preferences for identifying behaviors of others based on varying amounts of information. They further read that they would first receive general information about a fellow student to familiarize themselves with that person and later would be asked to identify actions taken by that person. Participants then received information about the target person that was designed to manipulate similarity. After reading this information, they completed a Behavioral Identification Form (BIF; Vallacher & Wegner, 1989) about the target person (see below), followed by manipulation checks and control measures, as well as demographic information questions. Finally, participants were asked to speculate about the general purpose of the study. None of the participants guessed the study's hypothesis or mentioned anything that would suggest that the similarity manipulation had affected their preference for action identification.

Similarity manipulation: Several weeks before they came to the study, as part of a mass testing session, participants indicated the classes that they had taken and were currently attending at New York University (NYU). Then, in the experimental session, participants were shown a list of 6 classes, which the target person supposedly attended at NYU. In order to

minimize the likelihood that participants would think that they might know the target person, participants read that the target had attended these classes at least two years before. Similarity was manipulated via the classes presented in this list. In the similar condition, 4 out of the 6 listed classes were ones that the participant had taken him or herself in the last two years; in the dissimilar condition none of the classes were ones that the participant has taken. To verify that participants took notice of the manipulation, they were asked to indicate beside each one of the classes whether they themselves had or had not attended that class. In order to keep constant the class content across the similarity conditions, each participant in the dissimilar condition was yoked to a participant in the similar condition. That is, a randomly chosen participant in the dissimilar condition was exposed to the same classes as a participant in the similar condition, with the only constraint being that he or she had not attended any of these classes.

Behavioral Identification Form (BIF): Following the similarity manipulation, participants were asked to identify behaviors supposedly performed by the target person. The behaviors were taken from Vallacher and Wegner's (1989) Behavior Identification Form, a questionnaire originally designed to measure individual differences in action identification. The questionnaire presents 25 activities (e.g., "locking a door"), each followed by two restatements, one describing the activity in terms of its means (how it is performed; e.g., "putting a key in the lock") and one describing it in terms of its ends (why it is performed; e.g., "securing the house"). Participants had to choose the restatement that best describes the activity. Following Liberman and Trope (1998), we removed six activities that NYU students are unlikely to engage in, leaving us with 19 behavior identifications.[1]

Manipulation checks and control measures: At the end of the experiment, participants indicated how similar the target was to themselves, and how close they felt to the target. The response scale ranged from "1" ("Not at all") to "9" ("Very much"). They also completed Aron, Aron, and Smollan's (1992) Inclusion of Others in Self Scale, which is a measure of interpersonal closeness. Participants chose which of seven pairs of circles best represented their degree of closeness to the target, ranging from complete separateness ("1") to almost a complete overlap ("7"). The two measures of closeness were highly correlated in all four experiments (r ranged from .51 to .79, $p < .01$) and thus were averaged to create a single closeness measure.

Finally, to test whether the similarity manipulation affected participants' affective judgments as well as their information processing motivation, they indicated how much they liked the target person, how difficult was the task, and the amount of effort they invested in it on a 9-point scale ranging from 1 ("Not at all") to "9" ("Very much").

Results and Discussion

Manipulation Checks and Control Measures—As expected, participants rated the similar target as more similar to themselves ($M = 6.94$, $SD = 1.43$) and closer to themselves ($M = 4.41$, $SD = 1.78$) than the dissimilar target (similarity: $M = 4.65$, $SD = 1.11$; closeness: $M = 2.82$, $SD = 1.10$), $t(32) = 5.21$, $p < .01$,$\eta^2 = .46$, for similarity, and $t(32) = 3.13$, $p < .01$,$\eta^2 = .23$, for closeness. In line with previous research on interpersonal similarity and attraction, participants expressed more liking for the similar target than the dissimilar target ($M = 6.64$, $SD = 1.17$ vs. $M = 5.53$, $SD = 1.33$, respectively), $t(32) = 2.60$, $p < .05$,$\eta^2 = .18$. However, participants did not perceive the task to be more difficult or more effortful as a function of the similarity manipulation, both $ts(32) < 1$.

[1]The behaviors we removed were: "joining the army", "picking an apple", "chopping down a tree", "voting", "climbing a tree", and "growing a garden."

Level of Action Identification—For all 19 activities in the questionnaire, the high-level why identifications were coded as 1 and the low-level how identifications were coded as 0. Scores were then summed for each participant, resulting in a 0 to 19 level of construal score. Proportions of high-level identifications for each activity as a function of similarity condition are presented in Table 1. As predicted, participants in the similar condition had lower level of construal scores than participants in the dissimilar condition (M = 11.59, SD = 5.10 vs. M = 14.65, SD = 3.48, respectively), $t(32) = 2.04$, $p < .05$, $\eta^2 = .12$. Because the similarity manipulation significantly increased participants' liking of the target, we conducted the same analysis adjusting for liking ratings as a covariate variable. The analysis of covariance (ANCOVA) revealed that whereas the construal differences between the similarity conditions remained significant, $F(1, 31) = 3.95$, $p < .06$, $d = .68$, the effects of liking on construal level scores was not significant, $F(1, 31) < 1$. In fact, there was no evidence of a correlation between liking and level of construal, $r = -.09$, $p > .6$. This suggests that interpersonal similarity influences the level of construal by which others' actions are represented irrespective of its effects on liking.

The results of this experiment provide initial evidence for our prediction that greater levels of interpersonal similarity predispose perceivers to form lower level construals of others' actions. Participants identified activities performed by a similar target less in terms of their superordinate, why terms compared to the same activities performed by a dissimilar target. These findings may seem counterintuitive, as one might expect that people would construe information about closer individuals in terms of aspects that are central to them (i.e., their goals) rather than in terms of aspects that are more secondary (i.e., means to attain those goals). However, in line with our construal level account, participants showed the reverse tendency. It should be noted, nonetheless, that we do not contend that high-level construals would never be used to represent the behaviors of socially close others. Indeed, people may sometimes be motivated to represent the behaviors of close others in terms of underlying goals and intentions and thus use higher level identifications to categorize their actions (see, Kozak, Marsh, & Wegner, 2006; Maass, Salvi, Arcuri, & Semin, 1989). We propose, however, that to the extent that interpersonal similarity reduces the perceived social distance from a target, lower level construals would be activated and used to represent that target. What are the implications of these construal effects to judgments of others' actions? The next three studies investigate this question.

Experiment 2: Information Search for Primary and Secondary Features of a Decision

Experiment 1 demonstrated the effects of interpersonal similarity on the construal of others' actions. The goal of Experiments 2 was to examine the implications of such construal consequences for information search. More specifically, we reasoned that if similar others are represented with lower level construals compared to dissimilar others, people should seek relatively more lower level information to predict similar than dissimilar others' actions. To test this prediction, participants were exposed to a target that either shared their attitudes on various issues or had opposing attitudes on these issues (cf. Byrne, 1971). They were then given the opportunity to request information that might help them predict the target's job-related decision. They could request both primary (i.e., high-level) and secondary (i.e., low-level) aspects related to the decision situation. We hypothesized that the amount of secondary information, relative to primary information, participants would seek would be greater when predicting the decision of a similar individual than when predicting the decision of a dissimilar individual.

Method

Participants—Forty-three women and 13 men, all undergraduate students at NYU (mean age = 19), volunteered to take part in this study as part of a course requirement. Participants were randomly assigned to either the similar or dissimilar condition.

Materials and Procedure—Participants were informed that the study investigates how people predict others' decisions based on varying amounts of information. They read that they would receive information about a target individual and a job opportunity this individual was considering, and would then be asked to predict whether the person had accepted or declined the depicted job offer. Following this general introduction, participants then read the information that manipulated similarity, indicated their information search preferences, and filled out the same manipulation check items, control measures, and demographic questions as in Experiment 1. Finally, participants were asked to speculate about the general purpose of the study. None of the participants guessed the study's hypothesis or mentioned anything that would suggest that the similarity manipulation had affected their interest and choice in primary vs. secondary information.

Similarity manipulation: We adapted a classic attitude similarity paradigm (Byrne, 1971) in order to manipulate interpersonal similarity. Several weeks before they came to the experimental session, as part of a mass testing session, participants completed an attitude survey concerning 10 issues (e.g., reality TV shows, sports). For each of these issues, participants had to indicate their attitude by marking one of six possible responses, ranging from a very positive evaluation of the issue at hand (e.g., “I enjoy reality TV shows very much”) to a very negative evaluation of it (e.g., “I dislike reality TV shows very much”). At the experimental session, participants were told that in order to familiarize themselves with the target individual they would receive information about that person's attitudes. They then read an attitude survey allegedly completed by the target person. In line with Byrne's method of constant discrepancy (Byrne, 1971), in the similar condition the target's attitude was marked one response away from the participants' original response while maintaining the same attitudinal valence as the participant; in the dissimilar condition the target's attitude was marked three responses away from the participants' original response, generating an attitude with the opposite valence. Overall, the target supposedly expressed either similar attitudes or opposing attitudes concerning all 10 issues. Participants were instructed to indicate their attitude concerning each of the issues in order to ensure that they noticed the similarities or differences between their own attitudes and the target's attitudes.

Job description: Following the similarity manipulation, participants were told that the target had to decide whether to accept or decline a job offer[2] based on ten criteria. Participants believed that they would receive information regarding the extent to which the job offer was attractive for the target with respect to only some of these criteria, and based on the available information would try to predict the target's decision. They were then shown the ten criteria, five of which were primary to job-related decisions (i.e., salary, promotion, interest, working hours, job security) and five of which were relevant but secondary to such decisions (i.e., dress code, room characteristics, office supplies, training period, dining options). All of the criteria were briefly described (e.g., job security was described as “Regulations and provisions which give the employee protection from dismissal”).[3]

Information search measures: After reviewing the 10 criteria, participants were reminded that they would receive information about some of these criteria but not about all of them. They

[2]In order to avoid introducing variability due to differences in participants' familiarity with a given job domain, we did not specify to participants the nature of the job in question.

were then asked to indicate how interested they were in receiving information about each of these criteria, on an 11-point scale ranging from 0 ("not interested at all") to 10 ("very interested"). On the next page, participants were asked to choose which of the criteria they would like to receive information about. It was emphasized that "Those should only be the ones that you think were important for the target person's decision and that would help you determine this decision." They were told that they could choose as many or as few criteria as they liked.

Results and Discussion

Manipulation Checks and Control Measures—As expected, participants rated the similar target as more similar (M = 6.00, SD = 1.21) and closer (M = 3.89, SD = 1.15) to themselves than the dissimilar target (similarity: M = 2.61, SD = 1.47; closeness: M = 1.86, SD = .88), $t(54) = 9.39$, $p < .01$, $\eta^2 = .62$, for similarity, and, $t(54) = 7.44$, $p < .01$, $\eta^2 = .51$, for closeness. Participants also liked the similar target more than the dissimilar target (M = 6.25, SD = .93 vs. M = 3.39, SD = 1.64, respectively), $t(54) = 8.02$, $p < .01$, $\eta^2 = .54$. However, participants did not perceive the task to be more difficult or more effortful as a function of the similarity manipulation, both $ts(54) < 1$.

Information Search

Interest ratings: Interest ratings measures were calculated for each participant by averaging across ratings within each criterion type. A 2 (Similarity: similar vs. dissimilar target) × 2 (Criterion Type: primary vs. secondary) ANOVA was performed on participants' interest ratings with similarity as a between-participants factor and criterion type as a within-participants factor. The analysis revealed a main effect of similarity, $F(1, 54) = 4.77$, $p < .05$, $\eta_p^2 = .08$, indicating that participants were more interested in receiving information when the target was similar rather than dissimilar (M = 7.06, SD = 1.21 vs. M = 6.39, SD = 1.07, respectively). There was also a main effect of criterion type, $F(1, 54) = 238.89$, $p < .01$, $\eta_p^2 = .82$, indicating that participants were more interested in receiving information about primary criteria than about secondary criteria (M = 8.46, SD = 1.04 vs. M = 4.99, SD = 1.82, respectively). Indeed, this finding suggests that the criterion type manipulation was successful. More crucial to the current investigation, however, a significant similarity x criterion type interaction was revealed, $F(1, 54) = 9.47$, $p < .01$, $\eta_p^2 = .15$. As shown in Figure 1, similarity increased interest in secondary criteria (M = 5.66, SD = 1.86 for similar target vs. M = 4.31, SD = 1.53 for dissimilar target), $F(1, 54) = 8.90$, $p < .01$, $\eta_p^2 = .14$, but not in primary criteria (M = 8.45, SD = 1.03 for similar target vs. M = 8.48, SD = 1.08 for dissimilar target), $F(1, 54) < 1$.

Choice: A 2 (Similarity) × 2 (Criterion Type) ANOVA was performed on participants' choice of primary and secondary criteria. The analysis revealed a main effect of Criterion Type, $F(1, 54) = 313.59$, $p < .01$, $\eta_p^2 = .85$, indicating that overall, participants chose more primary criteria than secondary criteria (M = 4.20, SD = 1.02 vs. M = .95, SD = .98, respectively). More important, however, the predicted similarity x criterion type interaction was significant, $F(1, 54) = 4.58$, $p < .05$, $\eta_p^2 = .08$, indicating, as shown in Figure 2, that whereas participants requested

[3]A pilot test was conducted to decide on the primary and secondary criteria. 26 New York University undergraduate students completed a questionnaire asking them to indicate the extent to which various criteria should be taken into account in job-related decisions. Each criterion was briefly described. Participants responded on an 11-point scale ranging from 0 ("not important at all") to 10 ("very important"). We chose the five criteria that had the highest importance ratings mean (M = 8.85) and the lowest standard deviations (average of SDs = .96) as the primary criteria, and the five criteria that had the lowest importance ratings mean (M = 3.98) and the lowest standard deviations (average of SDs = 1.85) as the secondary criteria. Further, for all participants, none of the five primary criteria was rated as less important than any of the five secondary criteria.

information about secondary criteria more for the similar than the dissimilar target (M = 1.21, SD = 1.07 vs. M = .68, SD = .82, respectively), $F(1, 54) = 4.44$, $p < .05$, $\eta_p^2 = .08$, the number of primary criteria chosen did not differ by similarity condition (M = 4.07, SD = 1.15 vs. M = 4.32, SD = .86, respectively), $F(1, 54) < 1$. The main effect of similarity was not significant, $F(1, 54) < 1$.

Because the similarity manipulation significantly increased participants' liking of the target, we conducted the same analysis adjusting for liking ratings as a covariate variable for both the interest and choice measures. The ANCOVAs revealed that the similarity x criterion type interaction remained significant for both measures, $F(1, 53) = 6.13$, $p < .05$, $\eta_p^2 = .1$, for the interest measure, $F(1, 53) = 5.15$, $p < .05$, $\eta_p^2 = .09$, for the choice measure. Further, the main effect of similarity that was found for the interest ratings was no longer significant after adjusting for liking, $F(1, 53) < 1$, ns. These results further support our claim that the effects of interpersonal similarity on the relative weight assigned to low- and high-level construals are independent of its effects on personal involvement. Liking may have increased participants' motivation to seek more information about a similar target in general, but it was not underlying the tendency to search for more secondary information in particular.

The findings of the current study revealed, as predicted, that greater similarity increased interest in and choice of secondary information. That is, participants sought more information about secondary aspects such as dining options and dress code when they considered criteria that might help them predict a similar target's job-related decision than a dissimilar target's decision. Contrary to our expectation, however, there were no differences in interest in and choice of primary information as a function of similarity. One possibility is that interest in primary criteria reached a ceiling. That is, because these criteria were perceived as highly important for job-related decisions, differences between the two conditions were difficult to detect. Another possibility is that participants were more involved in making decisions about the similar target than the dissimilar target, and that involvement made them want to consider more information. Possibly, the effects of construal and of involvement cancelled each other out in the case of primary features and added up in the case of secondary features. We will return to this possibility in the General Discussion.

Nonetheless, the results of this experiment suggest that as interpersonal similarity and thus social proximity increases, people differentiate less between primary and secondary information in their judgments about others' actions. It is important to note that although these results imply that interpersonal similarity increases the weight of information that presumably is less predictive of choice (i.e., secondary aspects of a decision) relative to information that should be the most predictive of choice (i.e., primary aspects of a decision), we do not argue that interpersonal similarity leads to less accurate judgments. This is because accuracy does not always follow from considering high level, general features (e.g., Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998).

Experiment 3: Weighting Desirability and Feasibility Concerns

Experiment 3 sought to extend the findings of Experiment 2 on information search to judgments concerning the relative impact of superordinate vs. subordinate aspects in others' decisions. In particular, in this experiment we examined the weight participants placed on desirability and feasibility considerations in judging the likelihood that a similar or a dissimilar other would engage in various actions. Desirability refers to the value of an action's end state, thereby constituting a superordinate, why aspect of the action, whereas feasibility refers to the ease or difficulty of reaching the end state, thereby constituting a subordinate, how aspect (Gollwitzer & Moskowitz, 1996; Kruglanski, 1996; Liberman & Trope, 1998). Representing an action in

terms of its desirability rather than feasibility aspects reflects therefore a higher level construal of the action. It follows from a construal level perspective, then, that the weight assigned to feasibility considerations relative to desirability considerations should increase with greater levels of interpersonal similarity.

It has been argued that attitudinal or background similarity may imply information about a target beyond just interpersonal similarity (e.g., the individual's personal characteristics), which, in turn may affect the perceiver's judgments (e.g., Ajzen, 1974; Kaplan & Anderson, 1973; Montoya & Horton, 2004). Therefore, in the current experiment we tried to minimize these implications by presenting participants with the exact same information regarding a target individual, except for the target individual's initials: In the similar condition the target had the same initials as the participant, whereas in the dissimilar condition the target had different initials. Previous research has shown that similarity on such trivial aspects decreases social distance from a target (e.g., Cialdini & De Nicholas, 1989; Jones, Pelham, Carvallo, & Mirenberg, 2004; Miller et al., 1998).

Participants read descriptions of four decision situations the target was facing. The desirability and feasibility of the outcome were varied between participants, such that the outcome was either highly desirable but less feasible or highly feasible but less desirable. For each situation, participants indicated (a) the likelihood that the target would engage in the action described and (b) the impact of desirability and feasibility considerations on the target's decision. We predicted that the weight of feasibility considerations relative to the weight of desirability considerations would increase in likelihood and importance judgments related to a similar target's decisions compared to a dissimilar target's decisions.

Method

Participants—Seventy women and 42 men, all undergraduate students at NYU (mean age = 19), volunteered to take part in this study as part of a course requirement. They were randomly assigned to one of four conditions created by crossing the similarity and alternative's value factors.

Materials and Procedure—Upon arrival, participants read that they are about to receive descriptions of events that another individual has experienced, and following each description they will be asked to provide their judgments about the decision that this individual has made at those events. Following this general information, participants were exposed to the similarity manipulation as well as to the descriptions of the events, indicated their likelihood and importance judgments about each of the events, and filled out the same manipulation check items, control measures, and demographic questions as in Experiments 1 and 2. Finally, participants were asked to speculate about the general purpose of the study. Although some participants in the similar condition were surprised they shared the same initials as the target (see below), and suspected it may be related to the experiment, none of the participants guessed the study's hypothesis or mentioned anything that would suggest that the similarity manipulation had affected their likelihood and importance ratings.

Similarity manipulation: Participants read descriptions of four situations in which the same target person was involved. Allegedly for the purpose of maintaining confidentiality, participants were told that they would only receive the target individual's initials rather than his or her full name. The target's initials appeared at the top part of each scenario as well as throughout the text. To manipulate similarity, the target's initials were either the same as the participant's own initials or initials of a yoked participant from the similar condition that were different from the participant's own initials.

Alternative's value: We adapted four decision situations from Liberman and Trope (1998). In each of the situations, desirability and feasibility concerns were represented by different aspects of the content: (1) The target was considering whether or not to attend a guest lecture. Desirability was represented by the interest value of the talk, whereas feasibility was represented by the convenience of its timing. (2) The target was offered to install a word processing program in her/his new computer. Desirability was represented by the quality of the word processing program and feasibility was represented by its learning time. (3) The target was debating whether to go to a show. Desirability was represented by the attractiveness of the show and feasibility was represented by the tickets' price. (4) The target's friend was offering her/him furniture for a new apartment. Desirability was represented by the design and color of the furniture and feasibility was represented by the difficulty to move them into the target's apartment. The alternative's value on the desirability and feasibility aspects was varied between participants. In one condition, the considered alternative was high in desirability (e.g., the guest lecture was interesting and relevant for the target's future work) but low in feasibility (e.g., the lecture was at an inconvenient time). In the other condition, the alternative was low in desirability (e.g., the guest lecture was uninteresting and irrelevant for the target's future work) but high in feasibility (e.g., the lecture was at a convenient time). For each participant, all four situations involved the same feasibility and desirability configuration (i.e., all four situations involved either high desirability/low feasibility or low desirability/high feasibility scenarios). The order in which the four situations were presented was counterbalanced across participants. The gender of the target was always the same as the participant's.

Judgments: Following each scenario, participants first indicated the likelihood that the target would choose to perform the described alternative (e.g., “In this situation, how likely is it that XXX will attend the lecture?”) on a 10-point scale ranging from highly unlikely (1) to highly likely (10). Then, participants indicated how important the desirability or the feasibility aspect was in the target's decision (e.g., “In this situation, how important would it be for XXX's decision whether or not the topic of the lecture is interesting / the lecture is given at a convenient time?”) on a 10-point scale ranging from completely unimportant (1) to very important (10). We were concerned that having both types of considerations judged at once would lead participants to provide indiscriminate high desirability and low feasibility importance ratings. Therefore, for half of the participants the first two situations were followed by desirability aspect judgments and the last two by feasibility aspect judgments, and for half of the participants the reverse order was used.[4]

Manipulation checks and control measures: Finally, participants completed the same measures of similarity, closeness, liking, difficulty, and effort as in Experiment 1.

Results and Discussion

Manipulation Checks and Control Measures—A 2 (Similarity: similar vs. dissimilar target) × 2 (Alternative's Value: low desirability/high feasibility vs. high desirability/low feasibility) between-participants ANOVA was performed on the similarity, closeness, liking, difficulty, and effort responses. As expected, participants rated the similar target as more similar (M = 6.68, SD = 1.80) and as closer to themselves (M = 4.71, SD = 2.18) than the dissimilar target (similarity: M = 5.23, SD = 1.65; closeness: M = 3.18, SD = 1.59), $F(1, 108) = 19.28$, $p < .01$, $\eta_p^2 = .15$, for similarity, and $F(1, 108) = 17.69$, $p < .01$, $\eta_p^2 = .14$, for closeness. They also liked the similar target more than the dissimilar target (M = 6.30, SD = 1.29 vs. M = 5.61, SD = 1.26, respectively), $F(1, 108) = 8.50$, $p < .01$, $\eta_p^2 = .07$. There was also a similarity

[4]Neither the order of the scenarios nor the order of the importance judgments made a difference and thus order was removed from the final analyses.

× alternative's value interaction for the liking measure, $F(1, 108) = 4.07$, $p < .05$, $\eta_p^2 = .04$, indicating that participants liked the similar target more than the dissimilar target only in the low desirability/high feasibility condition ($M = 6.57$, $SD = 1.29$ vs. $M = 5.39$, $SD = 1.16$, respectively), $F(1, 108) = 12.17$, $p < .01$, $\eta_p^2 = .10$, but not in the high desirability/low feasibility condition ($M = 6.04$, $SD = 1.26$ vs. $M = 5.82$, $SD = 1.33$, respectively), $F(1, 108) < 1$. Participants, however, did not perceive the task to be more difficult or more effortful as a function of the similarity manipulation, both $Fs(1, 108) < 1$.

Weight of Desirability and Feasibility Concerns

Likelihood judgments: A 2 (Similarity) × 2 (Alternative's Value) × 4 (Situation: guest lecture, word processing program, show, furniture) ANOVA with similarity and alternative's value as between-participants factors and situation as a within-participants factor was performed on participants' judgments that the target would choose to perform the described alternative. The analysis revealed a main effect of situation, $F(1, 108) = 16.10$, $p < .01$, $\eta_p^2 = .13$, which was qualified by an alternative's value × situation interaction, $F(1, 108) = 16.94$, $p < .01$, $\eta_p^2 = .14$, indicating that likelihood judgments varied across situations depending on whether desirability or feasibility considerations were high or low. Specifically, whereas for the word processing program situation likelihood judgments were higher in the low desirability/high feasibility condition, for the other three situations likelihood judgments were higher in the high desirability/low feasibility condition. More important for the present investigation, however, the ANOVA yielded the predicted similarity × alternative's value interaction, $F(1, 108) = 9.54$, $p < .01$, $\eta_p^2 = .08$. As can be seen in Figure 3, whereas for the dissimilar target the judged likelihood of engaging in the high desirability/low feasibility activities was higher than the judged likelihood of engaging in the low desirability/high feasibility activities ($M = 7.24$, $SD = .86$ vs. $M = 6.43$, $SD = 1.00$, respectively), $F(1, 108) = 8.67$, $p < .01$, $\eta_p^2 = .07$, this was not true (and was even in the reverse direction) for the similar target ($M = 6.47$, $SD = 1.19$ vs. $M = 6.87$, $SD = 1.06$, respectively), $F(1, 108) = 2.03$, $p = .16$, $\eta_p^2 = .02$. In other words, interpersonal similarity increased the weight of feasibility considerations relative to desirability considerations in judgments about the likelihood a target individual will choose to perform an action. No other effect was significant in this analysis.

Importance judgments: For each participant, we averaged across the two importance ratings pertaining to the desirability aspect and across the two pertaining to the feasibility aspect to create the consideration factor. We then performed a 2 (Similarity) × 2 (Alternative's Value) × 2 (Consideration: feasibility vs. desirability) ANOVA on participants' importance judgments with similarity and alternative's value as between-participants factors and consideration as a within-participants factor. The analysis revealed a main effect of consideration, $F(1, 108) = 12.25$, $p < .01$, $\eta_p^2 = .10$, indicating that desirability considerations were judged as more important than feasibility considerations. This result verifies our assumption that desirability concerns are superordinate to feasibility concerns. There was also a main effect for alternative's value, $F(1, 108) = 5.66$, $p < .05$, $\eta_p^2 = .05$, which was qualified by an alternative's value × consideration interaction, $F(1, 108) = 31.52$, $p < .01$, $\eta_p^2 = .23$. This interaction indicated that desirability concerns were seen as more important when desirability was high (i.e., for the high desirability/low feasibility activities than for the low desirability/high feasibility activities), whereas feasibility concerns were more important when feasibility was high (i.e., for the low desirability/high feasibility activities than for the high desirability/low feasibility activities). More important, the ANOVA yielded the predicted similarity × consideration interaction, $F(1, 108) = 4.37$, $p < .05$, $\eta_p^2 = .04$. As can be seen in Figure 4, whereas desirability concerns

were perceived as more important than feasibility concerns for the dissimilar target's decisions (M = 7.57, SD = 1.87 vs. M = 6.44, SD = 1.77, respectively), $F(1, 108) = 15.64$, $p < .01$, $\eta_p^2 = .13$, this was not the case for the similar target's decisions (M = 7.14, SD = 1.71 vs. M = 6.85, SD = 1.82, respectively), $F(1, 108) < 1$. No other effect was significant in this analysis. As in previous studies, the results remained the same even after adjusting for liking ratings, $F(1, 107) = 7.33$, $p < .01$, $\eta_p^2 = .06$, for the similarity x alternative's value interaction and $F(1, 107) = 4.54$, $p < .05$, $\eta_p^2 = .04$, for the similarity x consideration interaction.

The results of this study support our hypothesis regarding the effects of interpersonal similarity on the relative weight assigned to feasibility and desirability considerations in judgments of others' decisions. As predicted, participants judged the highly desirable activities as more likely to be pursued by the dissimilar than the similar target but tended to judge the highly feasible activities as more likely to be pursued by the similar than the dissimilar target. In addition, feasibility considerations tended to be perceived as having greater impact and desirability considerations tended to be perceived as having less impact on similar than on dissimilar others' decisions. In sum, the results of the current experiment, combined with those of Experiment 2, suggest that the perception of an actor as similar to oneself predisposes people to perceive the determinants of her or his behaviors increasingly more in terms of subordinate and secondary concerns relative to superordinate and primary concerns compared to when the actor is perceived as dissimilar.

Experiment 4: Weighting Primary and Secondary Aspects in Judgments of Performance

In Experiment 4 we consider a different implication of the association between interpersonal similarity and level of construal. Whereas Experiments 2 and 3 have demonstrated the effects of similarity on the perceived determinants of others' actions, in the current experiment we investigate whether changes in construal would influence judgments about the outcome of similar and dissimilar others' actions. More specifically, this experiment examines the effects of interpersonal similarity on the relative weight given to primary and secondary aspects in appraisals of a target individual's performance. Participants evaluated a short story supposedly written by a similar or a dissimilar individual. We varied the primary (quality of the story) and secondary (the target's ability in physics) aspects related to the task. Thus, participants read either a high or a low quality version of a story written by either an excellent or a poor-ability physics student. We predicted that the impact of the target's physics ability (the secondary aspect) relative to the impact of the quality of the story (the primary aspect) would be greater in evaluations of a similar target's short story compared to evaluations of a dissimilar target's short story.

Method

Participants—Participants were 168 NYU undergraduate students (125 women, 40 men, and 3 who did not report their gender), who volunteered to take part in this study as part of a course requirement. Participation was restricted to students who were not physics majors and had not participate in an essay competition before. Each participant completed the task in a separate cubicle. Participants were randomly assigned to one of eight conditions, created by crossing the similarity, story quality, and physics ability factors.

Materials and Procedure—Participants signed up for a study presumably to serve as judges in a short story competition conducted at NYU. They received a folder containing a short story supposedly written by a fellow student and were asked to carefully read the story and evaluate its quality. Following the evaluation task, participants completed the manipulation check items,

control measures, and demographics as in the previous studies. Finally, we probed participants for suspicion and verified that participants had read the note attached to the short story (see below). None of the participants suspected that the short story competition was fabricated or that the similarity manipulation might have affected their evaluations.

Similarity manipulation: Before beginning to read the short story, participant received information about the target designed to manipulate similarity. As in Experiment 1, participants read about a target who either attended similar classes as themselves or different ones. In order to make the manipulation appear relevant to the task and to verify that participants did not ignore it, we asked participants to indicate whether such information about the target should be provided and whether receiving other information about the target would have been useful.

Primary aspect - story quality: To manipulate the value of the primary aspect of the task, participants read either a well written short story or a poorly written version of it. We used Gabriel Garcia Marquez's story "One of these Days" as the well written version. To create a poorly written version of the story, we modified the story's style and inserted grammatical mistakes throughout the text, while maintaining the content and the number of words of the original version.

Secondary aspect - physics ability: To manipulate the value of the secondary aspect of the task, we provided information about the participant's physics ability. Specifically, on top of the folder containing the story we attached a post-it note. In the high physics ability condition the note said: "Please review this story as well. The contestant had to take a physics test as part of a promising young physicists program." In the low physics ability condition the note said "Please review this story as well. The contestant had to take a physics test to improve a low grade in a physics class."[5] To make sure participants would examine the note, they were left with the folder in front of them for a minute before they could proceed to read the story.

Judgments of essay quality: After reading the story, participants received a two-page evaluation sheet. On the first page they were asked to judge the overall quality of the story and on the next page they evaluated it on 7 criteria (i.e., grammar, vocabulary, structure, paragraph transition, clarity, style, and creativity) using 9-point scales ranging from "Very Poor" (1) to "Excellent" (9). We created an overall measure of story evaluation by averaging each participant's judgments of the overall quality with evaluations of the 7 criteria items ($\alpha = .94$).

Results and Discussion

Manipulation Checks and Control Measures—A 2 (Similarity: similar vs. dissimilar target) × 2 (Story Quality: poorly written story vs. well written story) × 2 (Physics Ability: low physics ability vs. high physics ability) between-participants ANOVA was performed on similarity, closeness, liking, difficulty, and effort responses. As expected, participants rated the similar target as more similar ($M = 4.18$, $SD = 1.90$) and as closer to them ($M = 2.82$, $SD = 1.51$) than the dissimilar target (similarity: $M = 3.68$, $SD = 1.40$; closeness: $M = 2.36$, $SD = 1.08$), $F(1, 160) = 4.47$, $p < .05$, $\eta_p^2 = .03$, for similarity, and $F(1, 160) = 5.42$, $p < .05$, $\eta_p^2 = .03$, for closeness. Participants also rated the author of the well written story as more similar and closer to them than the author of the poorly written story (similarity: $M = 4.58$, $SD = 1.53$ vs. $M = 3.27$, $SD = 1.58$, respectively; closeness: $M = 2.98$, $SD = 1.40$ vs. $M = 2.20$, $SD = 1.14$, respectively), $F(1, 160) = 30.63$, $p < .01$, $\eta_p^2 = .16$, for similarity, and $F(1, 160) = 16.34$, $p <$.

[5]A pilot study was conducted to verify that physics ability is perceived as a secondary feature of writing skills. 22 New York University students were asked to indicate the strength of association between writing ability and various skills, including verbal skills, physics ability, logical skills, intelligence, and diligence. The perceived relationship between writing skills and physics ability was significantly lower than the relationship between writing skills and any of the other skills.

01, η_p^2 = .09, for closeness. Unlike the findings of the previous studies, the present results showed only slightly (and insignificantly) greater liking for the similar target than the dissimilar target (*M* = 5.31, *SD* = 1.63 vs. *M* = 5.05, *SD* = 1.54, respectively), *F*(1, 160) = 1.44, *p* = .23. Likewise, participants did not perceive the task to be more difficult, *F*(1, 160) = 3.00, *p* > .08[6], or more effortful, *F*(1, 160) < 1, as a function of the similarity manipulation.

Short Story Evaluation—A 2 (Similarity) × 2 (Story Quality) × 2 (Physics Ability) between-participants ANOVA was performed on the story evaluation measure. This analysis yielded two main effects: a main effect of story quality, *F*(1, 160) = 270.68, *p* < .01, η_p^2 = .63, indicating that the well written story was judged as better than the poorly written story, and a main effect of physics ability, *F*(1, 160) = 6.45, *p* < .05, η_p^2 = .04, indicating that a story written by a high physics ability target was judged as better than a story written by a low physics ability target. These main effects, however, were qualified by the predicted two two-way interactions. As can be seen in Figure 5, a similarity × story quality interaction revealed that participants evaluating a dissimilar target's story differentiated more between the quality of the well written and the poorly written stories (*M* = 6.50, *SD* = 1.14 vs. *M* = 3.24, *SD* = .94, respectively) compared to participants evaluating a similar target's story (*M* = 6.35, *SD* = 1.18 vs. *M* = 3.84, *SD* = 1.34, respectively), *F*(1, 160) = 4.55, *p* < .05, η_p^2 = .03. In addition, as can be seen in Figure 6, a similarity × physics ability interaction revealed that participants evaluating a similar target's story differentiated more between the quality of a story written by high physics ability student and a low physics ability student (*M* = 5.50, *SD* = 1.69 vs. *M* = 4.69, *SD* = 1.80, respectively) compared to participants evaluating a dissimilar target's story (*M* = 4.91, *SD* = 2.02 vs. *M* = 4.82, *SD* = 1.91, respectively), *F*(1, 160) = 4.13, *p* < .05, η_p^2 = .03. In other words, interpersonal similarity increased the impact of the author's physics ability (the secondary aspect) and decreased the impact of the story's quality (the primary aspect) on participants' evaluations. No other effect was significant in this analysis.

The results of the present study support our claim that evaluations of dissimilar others' performance would be based mostly on high-level construal features whereas evaluations of similar others' performance would distinguish less between low- and high-level construal features. Participants evaluating a dissimilar target's story based their evaluations on the primary aspect of the task, the story's quality, and ignored secondary information about the target's physics ability. In contrast, participants evaluating a similar target's story were influenced by the secondary information. They evaluated a story written by a high physics ability target as better than the same story written by a low physics ability target. In sum, these findings provide further evidence for a construal level account whereby the weight of subordinate, secondary features relative to the weight of superordinate, central features is greater in judgments of similar others', compared to dissimilar others', performance. This suggests that the effects of interpersonal similarity on mental construal of others influence not only the types of choices perceivers imagine an actor would make, but also their judgments about the outcomes of an actor's behaviors in a given situation.

[6]Because participants tended to perceive the task as more difficult when the target was similar than dissimilar, (*M* = 3.04, *SD* = 1.70 vs. *M* = 2.61, *SD* = 1.57, respectively), we conducted the primary analysis with difficulty ratings as a covariate variable. The results of the ANCOVA revealed that both the similarity x story quality interaction and the similarity x physics ability interaction remained significant, *F*(1, 159) = 4.22, *p* < .05,η^2_p = .03, and *F*(1, 159) = 3.73, *p* < .05,η^2_p = .02, respectively, after adjusting for difficulty ratings. In contrast, difficulty was not a significant covariate, *F*(1, 159) = 1.72, *p* > .19. This suggests that the differences in the perceived task difficulty do not account for the obtained effects of similarity on the weight assigned to low- and high-level construal features.

General Discussion

The present research examines how interpersonal similarity affects the mental representation and judgment of others' actions. Using Construal Level Theory as a framework (Liberman et al., 2007; Trope & Liberman, 2003; Trope et al., 2007), we hypothesized that the actions of similar others are mentally represented and judged in terms of lower level construals (subordinate and secondary features rather than superordinate and central features) relative to those of dissimilar others. Four experiments supported this hypothesis. Experiment 1 demonstrated that participants used less superordinate "why" identifications to categorize a similar target's behaviors than a dissimilar target's behaviors. Experiments 2-4 demonstrated that participants assigned greater weight to subordinate and secondary features in judging similar relative to dissimilar others' actions. Specifically, Experiment 2 showed that participants sought more information about secondary aspects of a job offer (e.g., dress code in the workplace), but not more information about primary aspects of the job (e.g., salary), when asked to predict a similar target's job-related decision than when asked to predict a dissimilar target's decision. Experiment 3 demonstrated that participants judged a similar other's actions as relatively more determined by subordinate, feasibility concerns and relatively less by superordinate, desirability concerns compared to a dissimilar other's actions. Finally, Experiment 4 extended these findings to evaluations of others' actual performance. When judging a story written by a similar target, participants' evaluations were influenced more by a secondary aspect related to the author (his or her physics ability) and less by a primary aspect (the quality of the short story) relative to evaluations of a story written by a dissimilar target. In sum, these four studies, employing various manipulations of similarity and examining different types of judgments, provide converging evidence in support of the hypothesis that subordinate and secondary features of information (i.e., low-level construals) become more prominent in judgments of others' actions as interpersonal similarity increases.

In our studies, the weight of high level construals was not always significantly higher for dissimilar than similar others, which might suggest that the construal level account was only partially supported. We examined this possibility by conducting a meta-analysis of effect sizes following the procedures recommended by Johnson and Eagly (2000). The meta-analysis included effect sizes involving high-level construal measures only. There were three such measures: interest in and choice of primary criteria (Experiment 2)[7], importance of desirability aspects (Experiment 3), and differentiation between the quality of a well- vs. poorly written story (Experiment 4). Effect sizes (i.e., d[8]) were computed as the standardized difference between the mean of the dissimilar condition and the mean of the similar condition. The results of the meta-analysis are shown in Table 2. The meta-analysis yielded a weighted mean $d = .33$, with a confidence interval that did not include zero, 95% CI = (0.12, 0.55). The unit-normal z value for the weighted mean d, evaluating its significance, was 3.02, $p < .01$, indicating that across our studies high-level construal features had more weight in judgments of dissimilar compared to similar others' actions. Furthermore, the results of the meta-analysis indicated that effect sizes were homogenous across the experiments, as indicated by a nonsignificant $Q(3) = 1.26$, $p > .73$. In sum, the results of the meta-analysis provide further support for the proposed construal level mechanism by demonstrating that the predicted results pertaining to the greater weight assigned to high-level construals for dissimilar compared to similar targets' actions were consistent across studies, and overall were not particularly small in terms of effect size.

[7]To preserve the independence of effect sizes in a meta-analysis, each effect size has to come from a different study (Johnson & Eagly, 2000). We therefore computed a combined effect size from the effect sizes of the two search measures of Study 2 based on Rosenthal and Rubin's (1986) procedure (see, Johnson & Eagly, 2000).

[8]Following the recommendation of Johnson and Eagly (2000), we computed Hedge's sample-size-corrected effect size (Hedges, 1981), which is an unbiased estimator of the population effect size for small samples, and produces slightly smaller values than Cohen's' effect size.

Alternative Explanations

Involvemett: We interpret the present findings as indicating that higher levels of similarity predispose perceivers to form lower level representations of those actions. However, an alternative explanation of our findings is that they reflect a tendency to be more affectively and motivationally involved in similar targets than dissimilar targets. Indeed, past research has found that interpersonal similarity and closeness increase liking (e.g., Berscheid, 1985; Byrne, 1971; Byrne et al., 1966; Newcomb, 1956) and emotional-motivational relevance (e.g., Andersen et al., 1998; Aron et al., 1991). The greater weight assigned to low-level construal features in judging a similar person might then be interpreted as indicating more effortful processing of information about that person. However, several aspects of the present research argue against this alternative interpretation. First, in Experiment 1 participants were asked to identify actions by choosing one of two options varying in level of construal. It is unclear why participants would use more subordinate identifications and less superordinate ones as personal involvement increases. In fact, it seems more likely that personal involvement should make one motivated to view the target in terms of his or her intentions and goals, and thus represent the target's actions in a high-level manner (see, Kozak et al., 2006; Maass et al., 1989). Likewise, there seems to be no a-priori reason why personal involvement should lead one to assign more weight to low-level features in judgments of others' decisions and performance, as demonstrated in Experiments 3 and 4. Although it is possible that involvement increased feelings of empathy towards the similar target, thereby enhancing participants' attentiveness to situational factors affecting her/his behavior, it is unclear why such effects would lead to an increase only in the weight assigned to low-level features but not in the weight of high-level features as well. It seems that an involvement account should predict a general increase in both low- and high-level construal features, which was not the case in the current studies.

Second, an involvement account seems particularly relevant to the results of Experiment 2, where participants expressed more interest in receiving information about a similar than a dissimilar target. Yet this was true only for information about secondary features (e.g., dress code) but not for information about primary features (e.g., salary). If personal involvement was the only underlying process, then one would expect greater interest in information about both primary and secondary features. Indeed, when adjusting for liking ratings, the effects of similarity on information search in general were eliminated, whereas its effects on search of secondary information remained significant. This suggests that greater involvement was not responsible for the effects of similarity on the weight of low-level information in particular. Nevertheless, the results of Experiment 2 may have been produced by a combined effect of involvement and construal processes. Whereas involvement and level of construal would both increase the interest in secondary information about a similar target, they work in opposite directions with respect to interest in primary information: While involvement would lead one to search for more high-level information about a similar than a dissimilar target, construal processes produce the reverse effect. This may explain why we found a strong effect of similarity on information search for secondary aspects but a null result for the effects of similarity on information search for primary aspects.

Finally, in all four experiments we included measures of task difficulty, effort, and liking as indices of level of involvement. Across all experiments these measures were either unaffected by the similarity manipulation or did not mediate the effects of similarity on the relative weight of low- and high-level construal information.

Projection: It is interesting to consider the present results from the perspective of theories on projection. These theories suggest that people use their own mental states to infer others' beliefs and behaviors (e.g., Hoch, 1987; Krueger, 1998; Marks & Miller, 1987; Nickerson, 1999; Ross, Greene, & House, 1977). Recently, several researchers have argued that this is true

mostly for similar and close others (e.g., Ames 2004a, 2004b; Mitchell, Banaji, & Macrae, 2005; Schul & Vinokur, 2000). For example, recent work by Ames has shown that higher levels of perceived similarity to a target were associated with greater projection and less stereotyping (Ames, 2004a; 2004b). In addition, it has been shown that interpersonal closeness increases the overlap between mental representations of the self and mental representation of socially close others (e.g., Aron et al., 1991; Cialdini, Brown, Lewis, Luce, &Neuberg, 1997; Mashek, Aron, & Boncimino, 2003; Smith, Coats, & Walling, 1999). Could it be that participants in our studies drew on self-knowledge in judgments of a similar target's actions but used other-referent information in judgments of a dissimilar target's actions?

It should be noted that a projection explanation cannot account for the results of our studies without further assuming that others' actions are construed in higher level terms relative to one's own actions. Indeed, research demonstrating that self-representations, relative to representations of others, consist of more detailed, rich and contextualized information (e.g., Andersen, 1984; Andersen & Ross, 1984; Jones & Nisbett, 1972; Nisbett, Caputo, Legant, & Marecek, 1973; Prentice, 1990) supports such an assertion. In this sense, projection theories and a construal level account based on interpersonal similarity have converging predictions. CLT maintains, in fact, that both the self (relative to another person) and close others (relative to distant others) are proximal entities and therefore lower level construals are expected to be used with respect to judgments about the self and judgments about similar others (We further address this issue under the section “Implications for Social Distance”). Yet, a construal level account does not require the additional assumption concerning the use of self-knowledge to explain why low-level information was weighted more in judgments of similar, than dissimilar, others' actions. Hence, we do not argue against the possibility that projection processes might have occurred at least in some of the experiments. However, we do contend that a construal level account centered on similarity provides a simpler account of the current results.

Further, we believe that several aspects related to the procedures and findings of Experiment 4 (in which participants evaluated a high or low quality short story written by a target person with high or low physics ability) render a projection account less plausible. Specifically, it is unclear why one would predict from the logic of projection theories that secondary features, such as one's physics ability in the case of judging a written story, would be assigned more weight relative to primary ones, such as the quality of one's story, in self-judgments as compared to judgments about others. If anything, such theories would expect the reverse finding. Moreover, projection is assumed to occur when perceivers are asked to predict other people's decisions or estimate others' attributes. Because they have no access to the psychological experiences of others, perceivers can only rely on self-knowledge and project on the basis of this knowledge (e.g., Hoch, 1987; Krueger, 1998; Nickerson, 1999; Ross, Greene, & House, 1977). However, in Experiment 4 participants had to evaluate a target person's performance rather than make predictions regarding an uncertain target's attribute or decision. These types of judgments do not seem to involve projection processes. Further, it seems unlikely that in order to evaluate the quality of the target's short story participants would go through the process of imagining themselves as being the ones who wrote the essay, as well as having low or high ability in physics. It seems more likely, as well as parsimonious, to assume that participants weighted the low- and high-level features of information about the target as a function of the target's interpersonal similarity.

In sum, involvement and projection processes may have taken place in some of our studies. In fact, an increased use of both high level and low level information due to involvement and projection might explain why the effects of similarity on the weight assigned to low-level construals were more pronounced than the corresponding effects on high-level construals. Still, we maintain that the procedures we used and the results we obtained clearly demonstrate that

similarity has distinct and independent effects on the level of construal by which others' actions are represented and consequently judged.

Implication for Interpersonal Similarity Research—A construal level analysis suggests important implications for understanding the effects of interpersonal similarity on judgments and behavior. In particular, it generates novel predictions regarding possible effects of similarity on attraction. Numerous studies have demonstrated that greater levels of similarity lead to attraction (e.g., Berscheid, 1985; Byrne, 1971; Byrne et al., 1966; Newcomb, 1956; for a review, see Byrne, 1997; although see, Aron, Steele, Kashdan, & Perez, 2006, and Rosenbaum, 1986, for other perspectives on the similarity-attraction relationship). From the present perspective, however, this relationship should also depend on the value of low- and high-level construal features associated with the other person. Given that the relative weight of low-level construal features in people's judgments increases with interpersonal similarity, attraction to a similar person, relative to a dissimilar one, should be influenced more by whether subordinate and secondary features of the other are positive vs. negative, and less by whether superordinate and primary features of the other are positive vs. negative. Moreover, the present analysis may explain what is sometimes considered an exception to the similarity-attraction relationship, namely, cases in which “opposites attract” (Aron et al., 2006; Dryer & Horowitz, 1997; Heider, 1958; O'Leary & Smith, 1991). From the current perspective, dissimilarity can promote attraction when individuals value each other's high-level construal qualities, such as their ideals or goals. Correspondingly, similarity might decrease attraction when individuals dislike each other's low-level construal qualities, such as their habits.

Implication for Social Distance Research—The current investigation has implications not only for interpersonal similarity research, but also for understanding possible consequences of social distance in general. One major research area related to social distance involves differences in judgment about self and other (e.g., Jones & Nisbett, 1972; Nisbett et al., 1973; Pronin, Gilovich, & Ross, 2004). According to a construal level account, others would be represented in higher level construals than the self and, as a result, greater weight would be given to subordinate and secondary features in judgments related to the self than in judgments related to others. Some evidence in support of this prediction can be found in research that has examined the processes involved in personal decision-making versus advising (Kray, 2000; Kray & Gonzales). For example, Kray and Gonzalez (1999) found that participants tended to give less weight to dimensions they rated as most important for the decision at hand and greater weight to aspects that were less central in their own decisions than in their advice to others, especially to more socially distant others. Consistent with our construal level account, these findings suggest that for self-related decisions, compared to decisions involving others, subordinate aspects would have greater weight than superordinate central aspects. It should be noted, however, that this should mostly be the case for judgment about a temporally proximal self (i.e., the self in the present or in the near past or future) than for judgment about a temporally distant self (i.e., the self in the distant past or future). Indeed, judgments about a temporally distant self should resemble judgments about others, that is, they should be based more on high- than low-level construal features (e.g., Nussbaum, Trope, & Liberman, 2003; Pronin & Ross, 2006; Wakslak, Nussbaum, Liberman, & Trope, in press).

The current theoretical framework has important implications for the study of inter-group relations as well. In general, in-groups are perceived as socially closer than out-groups (e.g., Brewer & Weber, 1994; Turner, Hogg, Oakes, Reicher, &Wetherell, 1997). From a construal level perspective it follows that people should form higher level construals of out-groups than in-groups. Indeed, research has shown that more abstract superordinate representations are constructed for out-groups. For example, out-groups are perceived as more homogeneous and less distinctive on various dimensions than in-groups (i.e., as sharing superordinate

characteristics, e.g., Jones, Wood, & Quattrone, 1981; Linville & Jones, 1980; Park & Judd, 1990; Park & Ruthbart, 1982).

Further, a construal level analysis of inter-group dynamics may shed light on the effects of group contact on stereotyping and prejudice. Whereas some researchers have emphasized the positive consequences of minimizing category distinctions between the in-group and out-group (i.e., reducing social distance between the groups; e.g., Brewer & Miller, 1984), other researchers have stressed the importance of maintaining category boundaries (i.e., sustaining social distance between the groups) as means to reduce intergroup bias (e.g., Hewstone & Brown, 1986). From a construal level perspective, higher level construal features, such as superordinate goals, should have more impact on intergroup relations as social distance between groups is maintained. Indeed, there is evidence to suggest that the positive outcomes of a cooperative superordinate goal depend on maintaining the strength of group boundaries (e.g., Hewstone, 1996; Hewstone & Brown, 1986). In contrast, emphasizing similarities between groups should increase the impact of lower level construal features of the interaction. In line with this idea, research has found that some of the positive effects of personalized interactions with out-groups on intergroup perceptions are produced by the exchange of more concrete individuating information rather than a focus on the overarching task (Bettencourt, Brewer, Rogers-Croak, & Miller, 1992; Miller, Brewer, & Edwards, 1985). Thus, utilizing a construal level approach to the study of inter-group dynamics seems to be a promising direction for future research.

Conclusions

The present research has adopted a construal level analysis of the effects of interpersonal similarity on representation and judgments of others' actions. In four studies we demonstrate that the weight of subordinate and secondary features in judgments of others' actions increases with greater interpersonal similarity. These findings highlight heretofore unexplored effects of similarity on information processing and suggest new ways of understanding and predicting the effects of interpersonal similarity on attraction. Moreover, conceptualizing these findings within a construal level framework suggests new and exciting explorations of other instances of social distance, such as self-other differences and perceptions of in-groups and out-groups.

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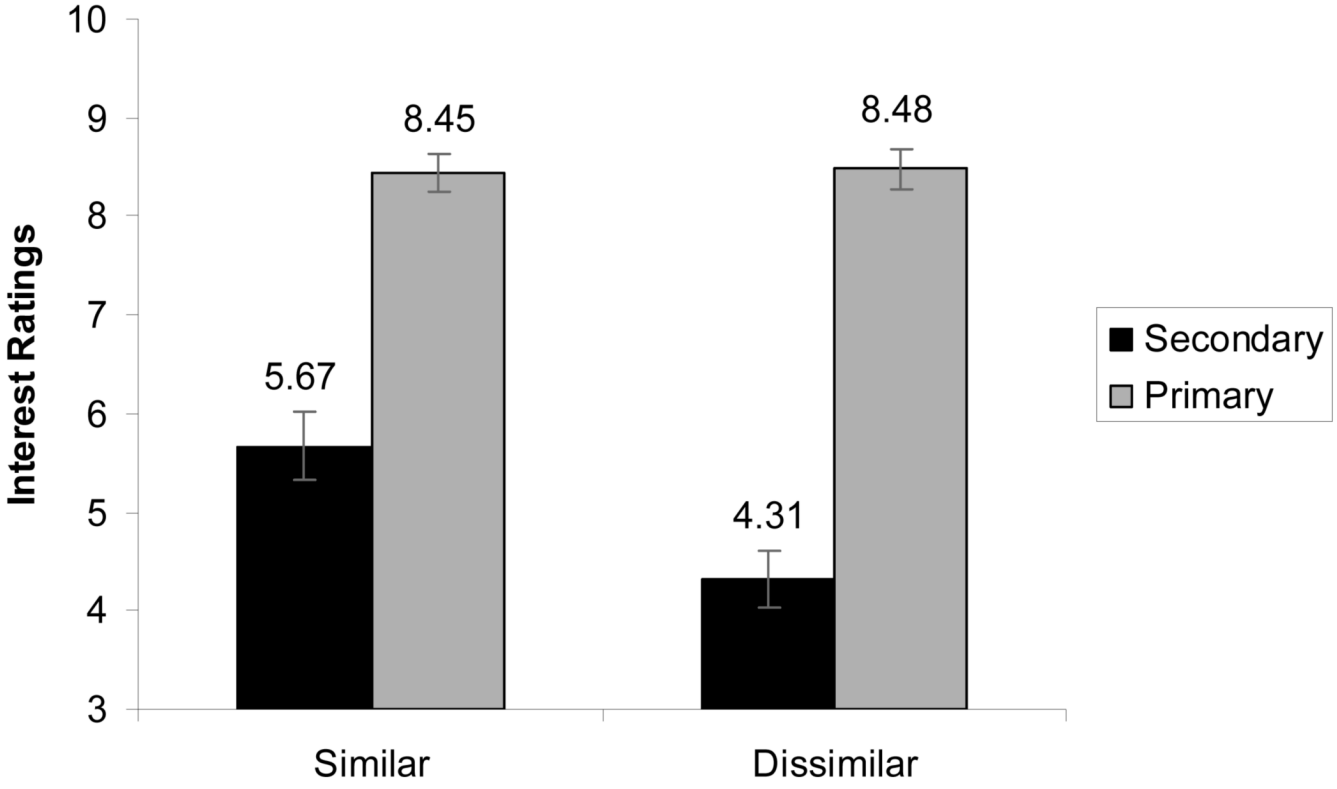

Figure 1.
Mean interest ratings for secondary and primary criteria by similarity condition (Experiment 2). Error bars represent standard error of the mean. Ratings were made on a 0-10 scale.

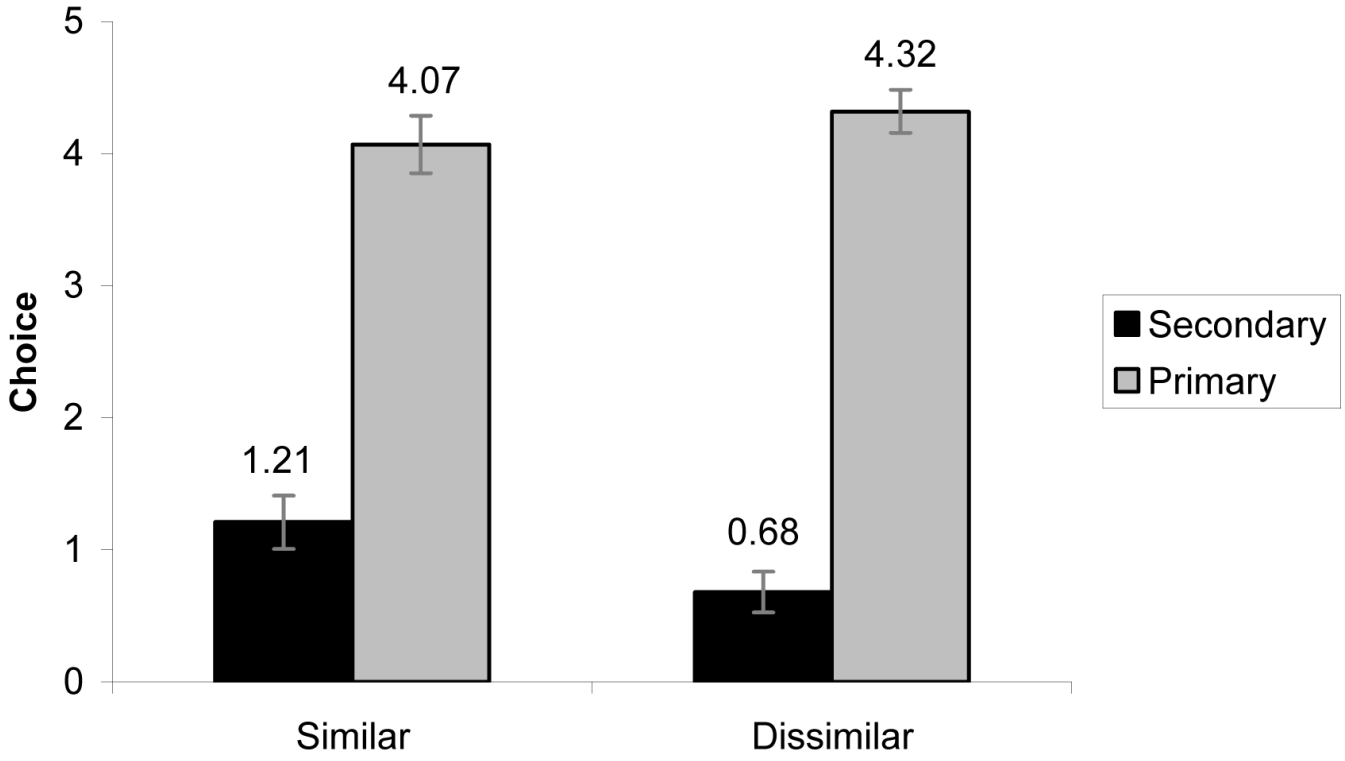

Figure 2.
Mean choice of secondary and primary criteria by similarity condition (Experiment 2). Error bars represent standard error of the mean. The range of the choice measure was 0 to 5.

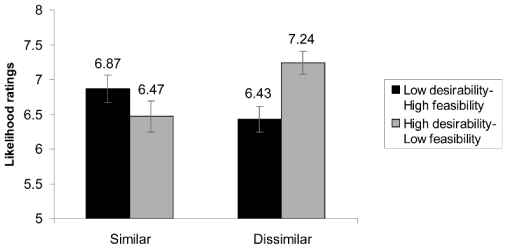

Figure 3.
Means of decision likelihoods by similarity condition and scenario type (Experiment 3). Error bars represent standard error of the mean. Ratings were made on a 1-10 scale.

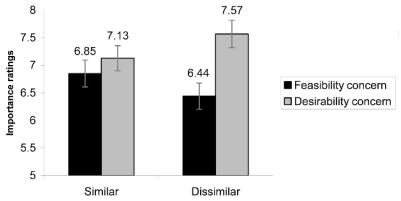

Figure 4.
Means of importance ratings of the desirability and feasibility considerations by similarity condition (Experiment 3). Error bars represent standard error of the mean. Ratings were made on a 1-10 scale.

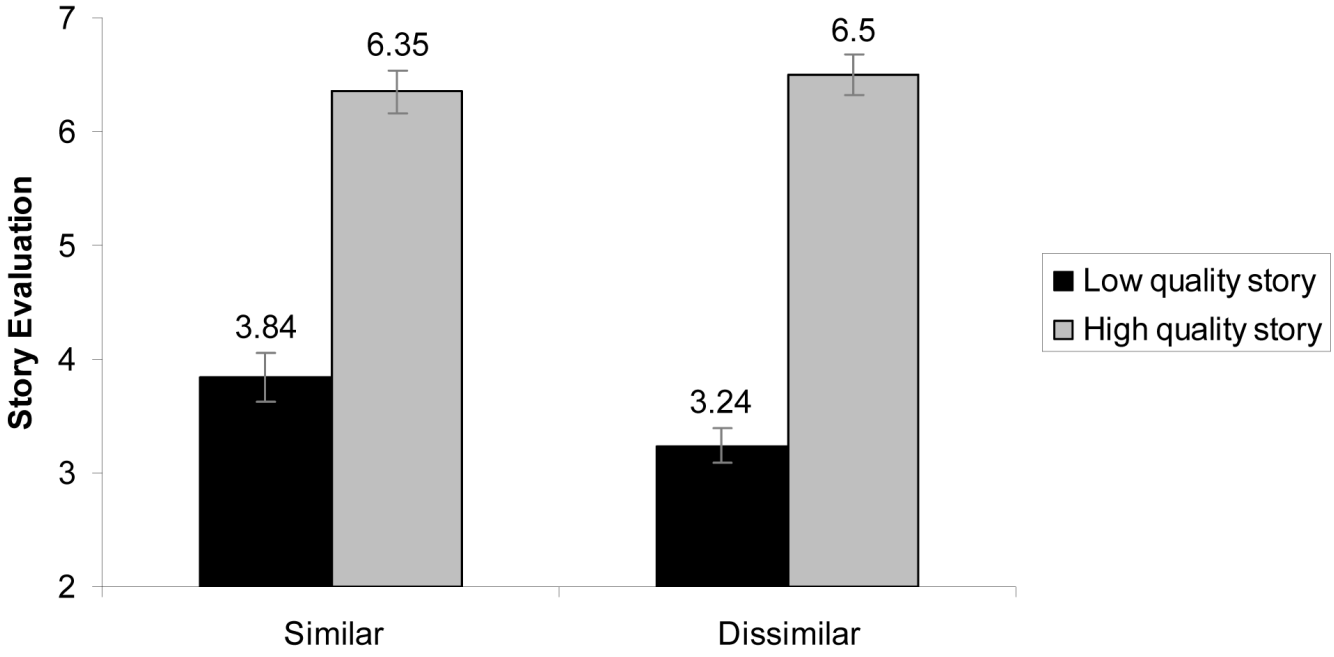

Figure 5.
Means of story evaluation by similarity condition and the story quality (Experiment 4). Error bars represent standard error of the mean. Ratings were made on a 1-9 scale.

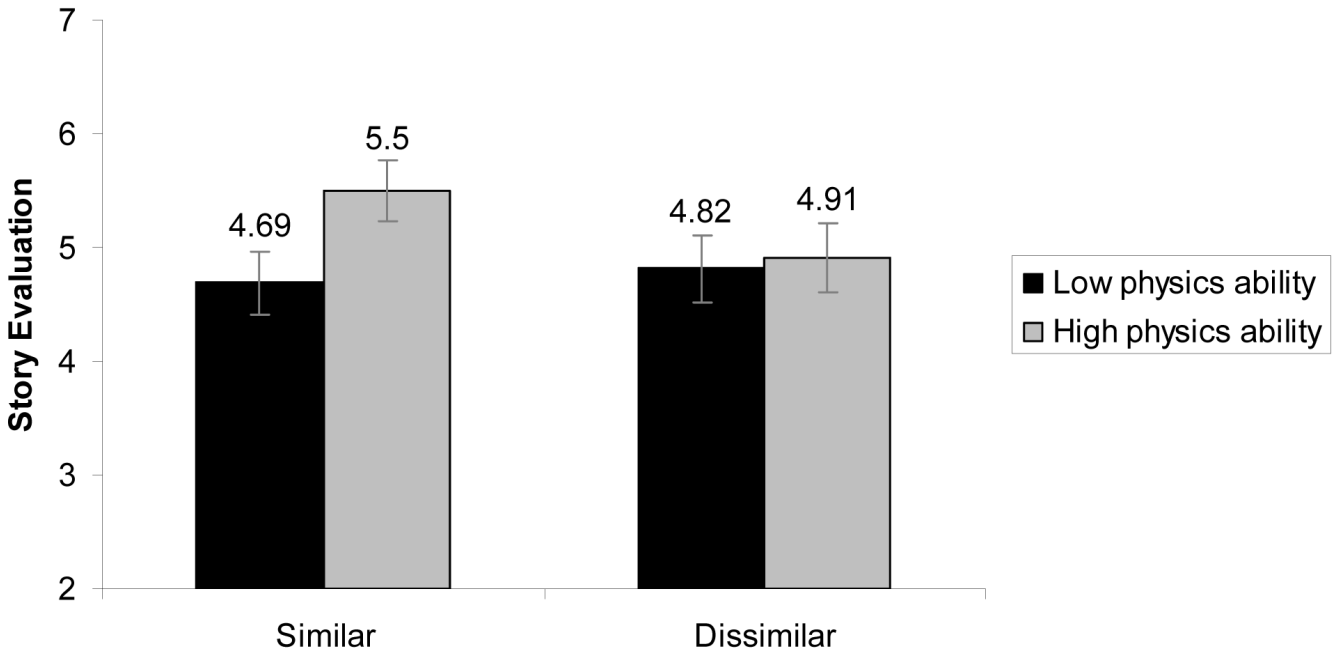

Figure 6.
Means of story evaluation by similarity condition and physics ability (Experiment 4). Error bars represent standard error of the mean. Ratings were made on a 1-9 scale.

Table 1

Proportion of High-Level Identifications for Activities in the Behavioral Identification Form as a Function of Similarity Condition (Experiment 1)

Activity	Ends Identification	Means Identification	Similar	Dissimilar
Reading	Gaining knowledge	Following lines of print	.76	1.00
Washing clothes	Removing odors from clothes	Putting clothes into the machine	.59	.71
Measuring a room for carpeting	Getting ready to remodel	Using a yardstick	.65	.81
Cleaning the house	Showing one's cleanliness	Vacuuming the floor	.35	.71
Painting the room	Making the room look fresh	Applying brush strokes	.65	.76
Making a list	Getting organized	Writing things down	.88	.82
Paying the rent	Maintaining a place to live	Writing a check	.65	1.00
Caring for houseplants	Making the room look nice	Watering plants	.47	.53
Locking a door	Securing the house	Putting a key in the lock	.76	.88
Filling out a personality test	Revealing what you're like	Answering questions	.53	.82
Toothbrushing	Preventing tooth decay	Moving a brash around one's mouth	.76	1.00
Taking a test	Showing one's knowledge	Answering questions	.53	.65
Greeting someone	Showing friendliness	Saying hello	.53	.76
Resisting temptation	Showing moral courage	Saying “no”	.53	.71
Eating	Getting nutrition	Chewing and swallowing	.65	.82
Traveling by car	Seeing countryside	Following a map	.53	.59
Having cavity filled	Protecting your teeth	Going to the dentist	.41	.59
Talking to a child	Teaching a child something	Using simple words	.53	.59
Pushing a doorbell	Seeing if someone's home	Moving a finger	.82	.94

Table 2

Meta Analysis of Effect Sizes (*ds*) Involving High-Level Measures of Experiments *2-4* and Mean Effect Size Across All Measures

Experiment	Measure	Effect Size (d)
Experiment 2	Combined effect size of search measures	.16
Experiment 3	Importance of desirability aspects	.24
Experiment 4	Differentiation between the quality of a well- vs. poorly written story	.45
Weighted mean d		.33
z value of weighted mean d		3.02*

* $p<.01$