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Temporal Construal

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Construal level theory proposes that temporal distance changes people's responses to future events by changing the way people mentally represent those events. The greater the temporal distance, the more likely are events to be represented in terms of a few abstract features that convey the perceived essence of the events (high-level construals) rather than in terms of more concrete and incidental details of the events (low-level construals). The informational and evaluative implications of high-level construals, compared with those of low-level construals, should therefore have more impact on responses to distant-future events than near-future events. This article explores the implications of construal level theory for temporal changes in evaluation, prediction, and choice. The authors suggest that construal level underlies a broad range of evaluative and behavioral consequences of psychological distance from events.

This article examines how temporal distance affects individuals' responses to future events. Everyday life predictions, evaluations, and choices often pertain to events that take place at some point in the near or distant future. One may decide either a short time or a long time in advance whether to accept a job, take a vacation, or start a diet. The question is whether such decisions change in some lawful manner as one gets closer in time to actually engaging in those activities. A similar question pertains to predictions of near- and distant-future events. For example, do individuals make different predictions about their performance as they get closer in time to the performance situation? In general, supposing that one has the same information about near- and distant-future events, does time perspective in and of itself change one's responses to these events?

To address these questions, we propose that temporal distance influences individuals' responses to future events by systematically changing the way they construe those events. We specifically propose that individuals form more abstract representations, or high-level construals, of distant-future events than near-future events. High-level construals consist of general, decontextualized features that convey the essence of information about future events, whereas low-level construals include more concrete, contextual, and incidental details. We argue, then, that judgments, predictions, and choices regarding the more temporally distant events are likely to be based on higher level construals of those events.

The primary focus of this article is on the psychological consequences of temporal distance from future events. We believe, however, that the same general principles hold for other distance dimensions, including temporal distance from past events, spatial distance, social distance (e.g., self vs. other, in-group vs. outgroup, and actual vs. possible identity), and hypothetical versus real events. People presumably form higher level construals of information about events in the more remote past and geographical locations, about more socially distant targets, and about hypothetical or uncertain events. We thus view level of construal as a general principle that may provide the basis for a unified theory of what Kurt Lewin (1951) called "psychological distance." In a later section, we discuss the relationship among various psychological distance dimensions and the role level of construal may play in mediating their psychological consequences.

Below, we first review past theory and research on the effects of temporal distance on individuals' responses to future events. We then present construal level theory and describe research testing the predictions of the theory with respect to the effects of temporal distance on construal, preference, and prediction. Finally, we discuss the origins and consequences of temporal construal and the relationship between temporal construal and other perspective-dependent construals.

Background: The Psychological Consequences of Time Perspective

For more than a century, questions about the psychological consequences of time perspective have provided the impetus for a large amount of research in the behavioral sciences (see Loewenstein & Prelec, 1992, 1993; Loewenstein, Read, & Baumeister, 2003). This research has been conducted by investigators across different disciplines, including psychology (e.g., Ainslie, 1975; Ainslie & Haslam, 1992; Baumeister & Heatherton, 1996; Met-

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calfe & Mischel, 1999; Rachlin, Brown, & Cross, 2000; D. Read & Loewenstein, 2000), behavioral economics (e.g., O'Donoghue & Rabin, 2000; Thaler, 1981), and political science (e.g., Elster, 1977; Schelling, 1984). Investigators in these disciplines have used a wide range of laboratory, survey, and econometric methods to study time-perspective phenomena. Within psychology, time-perspective issues have played a central role in all the three major schools of thought, as exemplified by psychodynamic analyses of primary versus secondary processes (see Freud, 1959), behaviorist analyses of self-control (see Ainsle, 1975; Rachlin et al., 2000), and cognitive analyses of delay of gratification (Mischel, 1974).

Despite the diverse conceptualizations and methodologies that have been applied to time-perspective issues, one common theme runs through much of this research; namely, how the value of outcomes changes as a function of their temporal distance. It has been generally assumed that the value of outcomes is discounted or diminished as temporal distance from the outcomes increases. Indeed, a considerable amount of research suggests that individuals often place higher value on a near-future reward than on a distant-future reward, even when the distant-future reward is larger (e.g., Ainslie & Haslam, 1992; Elster & Loewenstein, 1992; Mischel, Grusec, & Masters, 1969; Mischel, Shoda, & Rodriguez, 1989; D. Read & Loewenstein, 2000). Moreover, time discounting has been shown to follow a hyperbolic function; that is, as temporal distance of an outcome increases, the decline in the value of the outcome is initially steep and then becomes more moderate (see, e.g., Ainslie & Haslam, 1992; Green, Fristoe, & Meyerson, 1994; Kirby & Herrnstein, 1995; Loewenstein & Prelec, 1992; Meyerson, Green, & Fristoe, 1995; Rachlin, 1995; D. Read, Loewenstein, & Kalyanaraman, 1999; Roelofsma, 1996). However, researchers have also found marked variation in the rate of time discounting (see, e.g., Chapman, 1996; Rachlin & Raineri, 1992; Raineri & Rachlin, 1993) and even reversals of time discounting, namely, instances in which the value of outcomes undergoes augmentation rather than discounting as temporal distance increases (see, e.g., Elster & Loewenstein, 1992; Loewenstein, 1987; Lovallo & Kahneman, 2000).

Several hypotheses having to do with the type, valence, and magnitude of outcomes have been proposed to account for variation in time-discounting rates. One hypothesis proposes that the effect of temporal distance depends on whether outcomes have affect-based, "hot" value or cognition-based, "cool" value (Loewenstein, 1996; Loewenstein, Weber, Hsee, & Welch, 2001; Metcalfe & Mischel, 1999; Mischel et al., 1989). This affect-dependent time-discounting hypothesis assumes that affective outcomes undergo steeper time discounting than do cognitive outcomes. According to this hypothesis, temporal distance increases the weight of cognitive outcomes and decreases the weight of affective outcomes in determining the value of an option. For example, the influence of the perceived tastiness of a meal should undergo steeper time discounting than the influence of the perceived nutritious value of the meal. At a greater temporal distance, the value of the meal is more likely to depend on its nutritious value than on its tastiness.

Another influential hypothesis, based on conflict theories (Lewin, 1951; Miller, 1944), posits that the effect of temporal distance depends on whether the valence of the outcomes is positive or negative. According to this hypothesis, the value of all outcomes is discounted over temporal distance, but because avoidance gradients are steeper than approach gradients, the discounting rate is greater for negative outcomes than for positive outcomes (see, e.g., Epstein, 1977; Losco & Epstein, 1974; Shelley, 1994). This valence-dependent time-discounting hypothesis therefore predicts that temporal distance will increase the value of options that are associated with both positive and negative outcomes. For example, the inconvenience associated with having houseguests should undergo steeper time discounting than the enjoyment of spending time with the guests. Therefore, the value of having houseguests should be greater in the distant rather than near future. Research on discounting rates of monetary gains and losses has found little support for these predictions. In fact, it has been shown that losses are discounted less steeply than gains (e.g., Benzion, Rappoport, & Yagil, 1989; Loewenstein, 1987; Thaler, 1981).

Research in behavioral economics and human decision making has also shown that the rate of time discounting depends on the magnitude of the value of outcomes, such that small rewards are discounted at a faster rate than are large rewards (e.g., Benzion, Rappoport, & Yagil, 1989; Chapman, 1996; Green, Meyerson, & McFadden, 1997; Raineri & Rachlin, 1993; Thaler, 1981). For example, temporal distance produces greater discounting of a $10 reward than a $1,000 reward. It has also been suggested that sometimes individuals consume expectations. Anticipating the consumption of a positive event may be pleasant (savoring), whereas anticipating the consumption of a negative event may be unpleasant (dreading). Savoring may add positive value to a delayed positive event, and dreading may add negative value to a delayed negative event (Elster & Loewenstein, 1992; Loewenstein, 1987; Lovallo & Kahneman, 2000). According to the savoring–dreading hypothesis (Loewenstein, 1987), the value of events is always discounted over time delay, but the value of anticipation that is being added to the value of the event itself could make it appear as if the value of the event is actually augmented over delay.

These hypotheses have generated a large body of valuable research showing that temporal changes in value are a complex set of phenomena that are not easily captured by standard models of behavioral decision theory. This research has also uncovered psychologically meaningful factors that influence temporal changes in value (for a recent review, see Fredrick, Loewenstein, & O'Donoghue, 2001). This article seeks to add to the research on temporal changes in value by examining a process that has received little attention, namely, temporal changes in the mental representation of future events. We propose that temporal distance systematically changes people's mental representations of future events and that these changes determine, at least in part, temporal changes in the value of those events. It is important to note that the construal process we propose may apply not only to temporal changes in value but also to temporal changes in reasoning, planning, and prediction regarding the future. Temporal changes in these judgments may be mediated by the same representational mechanism that mediates temporal changes in value. Furthermore, a similar mechanism may also underlie the psychological consequences of other dimensions of psychological distance from events, including temporal distance from past events, spatial distance, and social distance. Our research focuses on temporal distance, but we suggest that the same representational principles hold for other dimensions of psychological distance.

Temporal Construal

We argue that people construct different representations of the same information depending on whether the information pertains to the near or distant future. Construal level theory (CLT) specifically proposes that individuals use more abstract mental models, or higher level construals, to represent information about distant-future events than information about near-future events. High-level construals are relatively simple, decontextualized representations that extract the gist from the available information. These construals consist of general, superordinate, and essential features of events. A defining characteristic of high-construal features is that changes in these features produce major changes in the meaning of the event. Low-level construals tend to be more concrete and include subordinate, contextual, and incidental features of events. Changes in these features produce relatively minor changes in the meaning of the event. Low-level construals are thus richer and more detailed but less structured and parsimonious than high-level construals (see Table 1 for a summary of these differences).

The distinction between levels of construal is related to a large amount of research on mental representation in the cognitive and social–cognitive literatures. According to Medin (1989; see also Murphy & Medin, 1985), concepts are structured around underlying theories. In these conceptual structures, some features are assumed to be more closely related to the perceived essence of things and have greater explanatory power than other more peripheral features (Keil, 1989; Kunda & Thagard, 1996; Murphy, 1993; S. J. Read & Marcus-Newhall, 1993; Rips, 1989; Thagard, 1989). For example, in natural categories (e.g., tiger) genetic features are more essential than morphological features, and in human-made products (e.g., computers) functional features (e.g., processing power) are more central than nonfunctional features (e.g., color of the frame). According to Rothbart and Taylor (1992), people use perceptual differences between racial, gender, and ethnic categories to infer underlying biological essences that are, in turn, used to explain a variety of additional attributes. Social–cognitive research has shown that individuals' inferences about themselves and others vary in their level of abstraction, with personality traits being more abstract and specific behaviors, beliefs, motives, and intentions being more concrete (Cantor & Mischel, 1979; Dweck & Leggett, 1988; Hampson, John, & Goldberg, 1986; Idson & Mischel, 2001; Mischel & Shoda, 1995, 1998; Shoda & Mischel, 1993; Trope, 1986, 1989). For example, high-level construals may represent behavior episodes in general terms, such as "John is aggressive," rather than in more concrete and contextualized terms, such as "John tried to push Shelly on the way to the cafeteria" (Semin & Fiedler, 1988).

Table 1
Distinguishing High-Level and Low-Level Construals

High-level construals	Low-level construals
Abstract	Concrete
Simple	Complex
Structured, coherent	Unstructured, incoherent
Decontextualized	Contextualized
Primary, core	Secondary, surface
Superordinate	Subordinate
Goal relevant	Goal irrelevant

Similarly, goal-directed actions may be construed in terms of goals at different levels of abstractness (see, e.g., Abelson, 1981; Rumelhart, 1977; Zacks & Tversky, 2001). Vallacher and Wegner's (1987) action identification theory specifically suggests that actions may be represented in terms of superordinate or subordinate goals. According to this theory, the former type of goals has to do with relatively abstract "why" aspects of an action, whereas the latter type of goals has to do with more specific "how" details of the action. High-level construals are therefore likely to include action identifications at the superordinate, why level rather than the subordinate, how level. Properties of end state are likely to be part of high-level construals, whereas properties of means to the end are likely to be part of low-level construals (see Liberman & Trope, 1998). For example, a high-level construal may represent "conducting a study" as "advancing science" rather than as "testing a hypothesis" or "entering the data collected this morning." Moreover, features of actions that are related to their primary goal are more central to the meaning of the actions than are features that are unrelated to that goal (see Higgins & Trope, 1990; Kruglanski, 1975). High-level construals are therefore likely to represent actions in terms of features that are related to the primary goals of the actions rather than in terms of incidental, goal-irrelevant features (see Trope & Liberman, 2000). For example, a high-level construal may represent "watching a movie on TV" in terms of the featured movie rather than in terms of the commercials.

CLT proposes, then, that the same information is construed at a higher level when the information pertains to distant-future events than when it pertains to near-future events. The greater the temporal distance from a future event, the more likely is the event to be represented abstractly in terms of a few general features that convey the perceived essence of the events rather than in terms of concrete and more incidental details of the event. Distant-future activities are described in terms of superordinate goals, whereas near-future activities are described in terms of subordinate goals. Distant-future events are classified into few broad categories, whereas near-future events are classified into a relatively large number of narrow categories. Consider the following visual analogy: From the distant perspective, people see the big picture, whereas from the proximal perspective, they see the details. A simpler, more coherent structure should thus underlie people's responses to distant-future events than to near-future events.

What are the implications of CLT for temporal changes in the value of events? We propose that the subjective value people assign to events reflects the construals of these events. If higher level construals are used for the more distant-future events, then the value of high-level construals would be more pronounced in the more distant future, whereas the value of low-level construals would be more pronounced in the more proximal future. Hence, when the value associated with high-level construals is more positive than that associated with low-level construals, the attractiveness of an option should increase with temporal distance. In contrast, when the value associated with low-level construals is more positive than that associated with high-level construals, the attractiveness of an option should decrease with temporal distance.

Suppose, for example, that the abstract construal "helping another person" is more positive than the concrete construal "giving a dollar to a homeless person in a New York subway late at night." We predict that the former construal is more likely to be used for a situation in the distant than near future, whereas the reverse

would hold for the latter construal. Hence, the action would seem more positive in the distant future. Similarly, assuming that the abstract construal "cheating" is more negative than the more concrete construal "peeking at my neighbor's exam to compare answers," CLT would predict that the action represented by these construals would seem more negative in the distant future than in the near future. In general, as temporal distance increases, preferences are more likely to reflect the value associated with high-level construals of options than the value associated with low-level construals of options. In other words, the value associated with low-level construals is diminished (discounted) with temporal distance, whereas the value associated with high-level construals is enhanced (augmented) with temporal distance.

The same logic applies to time-dependent changes in prediction of future events. According to CLT, predictions regarding distant-future events are based on high-level construals of events, whereas predictions regarding near-future events are based on low-level construals of the events. Ordinarily, people have less information and are therefore likely to make less accurate predictions for the distant future than for the near future. However, because high-level construals contain less incidental and contextual features and because these features commonly undermine one's confidence in the prediction (Griffin, Dunning, & Ross, 1990; Sherman, 1980), predictions for the distant future may be made with no less and even greater confidence than predictions for the near future. As a result, distant-future predictions may be made with greater overconfidence than predictions for the near future.

Why do people's construals depend on time perspective? As discussed in more detail in a later section, we believe that temporal construal is a generalized heuristic that evolves as a result of differences in what people typically know and do about near- and distant-future situations. Ordinarily, details about concrete, secondary aspects of future events, the context in which they occur, and alternative scenarios and courses of action become available only as one gets close in time to the events. In addition, people are often free to postpone their decisions until they get close in time to the future situation. They may therefore start thinking about a future situation in terms of their general knowledge and goals and postpone thinking about the more specific, secondary aspects of the situation until later. An association may thus be formed between temporal distance and level of construal. This association may be overgeneralized, causing people to continue using high-level construals for distant-future events and low-level construals for near-future events even when the information about the near-future and distant-future events is the same and the decision is irreversible at both points in time.

The following three sections examine the implications of CLT regarding construal, preference, and prediction. We first examine the implications of the theory regarding temporal changes in the construal of future events. Next, we apply CLT to temporal changes in preference regarding future options. We then turn to the implications of CLT regarding temporal changes in prediction of future events. In the concluding two sections, we discuss the origins of temporal construal, its consequences for self-regulation, and the relationship between temporal construal and other perspective-dependent construals.

Temporal Changes in the Construal of Future Events

CLT assumes that the rich, detailed, and possibly ambiguous information contained in real events is represented more abstractly, in terms of relatively simple and structured mental models, when the events are expected in the distant future than in the near future. Below, we examine the implications of this assumption with respect to temporal changes in the hierarchical level, breadth, complexity, and prototypicality of the representation of future events.

Representing Future Activities in Terms of Superordinate Versus Subordinate Goals

CLT predicts that the same information about an event is more likely to be construed in terms of superordinate features rather than subordinate features when the event is expected in the distant future than in the near future. In thinking about future activities, people should therefore use higher level goals to represent distant-future than near-future activities. To test this prediction, we asked participants to imagine themselves engaging in various activities (e.g., reading a science fiction book or taking an exam) either tomorrow or next year and to describe these activities (Liberman & Trope, 1998, Study 1, Part 1). The analysis of the content of these descriptions was based on the assumption that superordinate, high-level descriptions of an activity fit the structure "[description] by [activity]" whereas subordinate, low-level descriptions fit the structure "[activity] by [description]" (Hampson et al., 1986). For example, a description of the activity "reading a science fiction book" as "broadening my horizons" fits the first structure ("I broaden my horizons by reading a science fiction book"). Therefore, this description was classified as a high-level construal of the activity. In contrast, the description "flipping pages" fits the second structure ("I read a science fiction book by flipping pages") and thus constitutes a low-level construal of the activity. As predicted, this analysis revealed that high-level descriptions were more common in the distant-future condition compared with the near-future condition and the reverse was true for low-level descriptions.

A related, forced-choice study used an adapted version of Vallacher and Wegner's (1989) Level of Personal Agency questionnaire that was originally designed to assess stable individual differences in action identification (Liberman & Trope, 1998, Study 1, Part 2). The questionnaire presents 19 activities, each followed by two restatements, one corresponding to the why (high-level) aspects of the activity and the other corresponding to the how (low-level) aspects of the activity. For example, "locking a door" is followed by a choice between the alternative restatements "putting a key in the lock" and "securing the house." To manipulate temporal perspective, we added a time indicator to each activity, either "tomorrow" or "sometime next year." As predicted by CLT, participants chose significantly more high-level, why restatements in the distant-future condition than in the near-future condition.

The results of these studies (Liberman & Trope, 1998) support the hypothesis that individuals use superordinate terms to describe near-future activities and subordinate terms to describe distant-future activities. The construal of distant-future activities stated the goals of the activities, whereas the construal of near-future activities stated the means for achieving these goals.

Category Breadth

How do individuals classify objects they plan to use in the near future versus the distant future? If the distant future is represented more abstractly, as CLT predicts, then individuals should use broader categories to classify objects for distant-future situations than for near-future situations. To test this prediction, Liberman, Sagristano, and Trope (2002, Study 1) asked participants to imagine an event (e.g., camping trip) in either the upcoming weekend or a weekend a few months later and to classify a given list of 38 objects related to the event (e.g., tent and toothbrush) into as many mutually exclusive and exhaustive groups as they deemed appropriate. Participants were instructed to assume that their classification was final and could not be altered later. The authors simply counted the number of groups into which participants classified the objects from each scenario. The results showed that participants used fewer categories when they imagined the objects in a distant-future scenario than a near-future scenario. This finding is consistent with the CLT assumption that distant-future events are represented in terms of relatively high-level, abstract categories, whereas near-future events are represented in terms of relatively low-level, concrete categories.

The Complexity of Future Representations

If the more distant future is construed more abstractly, then fewer dimensions should underlie people's judgments about the more distant future. Liberman et al. (2002, Study 2) asked participants to rate their interest in 25 daily activities and events (e.g., doing homework and watching the news). The activities and events were to happen either the next day or at a specified point in time 2–6 months later. Multidimensional scaling assessed the number of factors that accounted for the expressed preferences. As expected, the two-, three-, and four-factor solutions produced poorer fit for the near-future preferences than for the distant-future preferences. The near-future preferences always required one factor more than the distant-future preferences to account for the same amount of variance. It seems, then, that near-future preferences are more complex, are harder to reduce to general underlying dimensions, and are determined by a larger set of distinct factors than distant-future preferences.

Prototypicality of Future Events

High-level, schematic construal of the future should lead individuals to expect future events to resemble the ideal case or prototype of the event's category. For example, a schematically construed good day would consist of prototypically positive experiences, and a schematically construed bad day would consist of prototypically negative experiences. According to CLT, such schematic, prototypic construals are more likely to be applied to the more distant-future experiences. We therefore predicted that the more distant-future good and bad days would show less intracategory heterogeneity (i.e., less diversity of experiences within each type of day) and more intercategory heterogeneity (i.e., the good and the bad day would be more distinct from each other).

To test this prediction, Liberman et al. (2002, Study 3) asked participants to list the events they expected to experience during either a good day or a bad day in either the near future (tomorrow) or the distant future (a day a year from now) and to rate the valence of each event. For each participant, the authors computed the mean and the standard deviation of these ratings. As predicted, the experiences expected in a near-future day were more diverse than the experiences expected in a distant-future day, as reflected by higher standard deviations of the valences of the events in the near-future than distant-future day. Also as predicted, more extreme, prototypical experiences were expected in the distant future than in the near future; that is, a good day a year from now seemed to be better than a good day tomorrow and a bad day a year from now seemed to be worse than a bad day tomorrow. This last finding qualifies the idea that people simply construe the distant future as more positive than the near future (see Mitchell, Thompson, Peterson, & Cronc, 1997). Thus, distant-future experiences appear to be more schematic, as reflected in both greater intracategory homogeneity (i.e., less diverse experiences within each type of day) and greater intercategory divergence (i.e., good and bad days were more distinct from each other).

In summary, the research reviewed in this section demonstrates that in thinking about the more distant future (a) actions are construed in more superordinate terms, (b) objects are classified into broader categories, (c) preferences are organized in simpler structures, and (d) valenced experiences are expected to be more prototypical. Taken together, these findings provide evidence for the basic premise of CLT, namely, that temporal distance systematically changes the way events are represented. The changes are toward greater abstraction: As temporal distance increases, future events are represented more parsimoniously in terms of fewer general features that convey the perceived essence of the events.

Temporal Changes in Preference

We can now turn to the question that for many years has been of central importance in time-perspective research: How does time delay influence preference regarding future options? According to CLT, temporal changes in the attractiveness of an option depend on the value associated with the high-level construal of the option (high-level value) and the value associated with the low-level construal of the option (low-level value). Temporal distance should increase the weight of high-level value and decrease the weight of low-level value. As a result, time delay should shift the overall attractiveness of an option closer to its high-level value than to its low-level value. When the low-level value of an option is more positive than its high-level value, the option should be more attractive in the near future (time discounting). However, when the high-level value of an option is more positive, the option should be more attractive in the distant future (time augmentation). CLT further assumes that high-level construals of options consist of primary (vs. secondary) and superordinate (vs. subordinate) features of those options (see Table 1). If this is true, temporal distance should increase the influence of value associated with primary and superordinate features of future options, relative to the influence of value associated with secondary and subordinate features of options. This section examines the implications of this prediction.

The Influence of Primary Versus Secondary Aspects of Future Options on Preference

Depending on people's goals, some aspects of future options are primary and essential whereas others are secondary and incidental. For example, for the purpose of hiring an engineer, technical qualifications are more central than social skills, whereas the reverse may be true for hiring a salesperson. CLT assumes that time delay enhances construal of future options in terms of their primary rather than secondary aspects. Hence, primary aspects of options are more likely to guide preferences for the near future, whereas secondary aspects of options are more likely to guide preferences for the distant future. Several studies demonstrate this phenomenon.

The Influence of Goal-Relevant and Goal-Irrelevant Features on Task Preference

Consider an activity consisting of two parts: a main task, which is the goal of the activity, and an unrelated filler task to be performed during a break in the main task. Because the main task is the primary goal of the activity, it is part of a high-level construal of the activity, and because the filler task is a secondary aspect of the activity, it is part of a low-level construal of the activity. CLT therefore predicts that temporal distance will increase the weight of the value of the main task relative to the weight of the value of the filler task in determining the overall attractiveness of the activity. When the main task is more attractive than the filler task, the overall activity would become more attractive over temporal distance. In contrast, when the main task is less attractive than the filler, the overall activity would become less attractive over temporal distance.

Trope and Liberman (2000, Study 4) presented participants with activities consisting of either an interesting main task and a boring filler or a boring main task and an interesting filler. Each activity was described as consisting of three sessions of performing the main task, with the filler task performed between these sessions to provide rest and distraction from the main task. For example, an activity entitled "Judging Humor" was described as follows: "The main task is judging humor, and will ask you to evaluate the funniness of cartoons. The filler task in between the three sessions is checking data, and will ask you to compare two lists of numbers to check for discrepancies."

When the chosen activity was said to take place in a few weeks, participants strongly preferred the activity with an interesting main task to the activity with a boring main task. However, when the chosen activity was said to take place in the same experimental session, this preference was significantly weaker. Thus, as predicted by CLT, temporal distance enhanced the tendency to evaluate activities in terms of goal-relevant rather than incidental aspects, so that with time delay the activity with an interesting main task (but boring filler) became more attractive and the activity with a boring main task (but interesting filler) became less attractive.

The same temporal changes in preference should hold for objects with multiple functions. Features that are related to the primary function of the object product, compared with features that are unrelated to this function, constitute a higher level of construal of the object. The weight of the value of these features should therefore be greater in decisions regarding the more distant future. Consider a choice between two radio sets: one with good sound but a poor built-in clock and the other with poor sound but a good clock. Supposing that one's goal is listening to music and radio programs, then sound quality should be more central than the quality of the clock. CLT therefore predicts, and our research actually found, that the preference for the radio that has good sound over the radio that has poor sound should be stronger in the distant than near future, with the attractiveness of the former increasing and the attractiveness of the latter decreasing with temporal distance (Trope & Liberman, 2000, Study 3).

The Influence of Cognitive and Affective Value on Preference

In the preceding studies (Trope & Liberman, 2000), high- and low-construal features had the same type of value. For example, the value of both the main and filler parts of an activity was derived from their interest level. According to affect-dependent time-discounting theories, it is important to distinguish between cognition-based, or cold, value and affect-based, or hot, value (Loewenstein et al., 2001; Metcalfe & Mischel, 1999). The question, then, is whether temporal changes in the influence of both affective and cognitive value depend on the level of construal with which these two types of value are associated. CLT predicts that when cognitive value is associated with high-level construals and affective value with low-level construals, temporal distance will increase the weight of cognitive value relative to that of affective value. However, when affective value is associated with high-level construals and cognitive value with low-level construals, temporal distance should increase the weight of affective value relative to that of cognitive value.

In a study designed to test these predictions, Trope and Liberman (2000, Study 5) assessed preferences regarding short student films varying in affective value (funniness) and cognitive value (informativeness). The goal of watching the films was either affective (getting oneself into a good mood) or cognitive (learning about a topic). Depending on whether the goal was affective or cognitive, either affective features or cognitive features of the films were primary and thus constituted the high-level construal of the films, whereas the other type of features was rendered secondary and thus part of the low-level construal of the films. The funniness and informativeness of the films were varied by presenting participants with other students' evaluations of the films. For example, an evaluation of the funny but uninformative film said "I really enjoyed the jokes, but could not make sense of the guy's explanations," and an evaluation of the informative but not funny film said "It wasn't really funny, probably because the explanations made it all so clear and transparent."

Participants' preferences showed that under the cognitive goal, temporal distance increased the preference for the informative/not-funny film over the uninformative/funny film, so that the informative film was strongly preferred to the uninformative film in the distant future but not in the near future. However, under the affective goal, temporal distance had the opposite effect. Here, temporal distance increased the preference for the funny/uninformative film over the not-funny/informative film. These results are consistent with CLT. Informativeness became more influential in the more distant future under a cognitive goal because under this

goal informativeness constituted a high-level construal of the films. Similarly, funniness became more influential in the more distant future under an affective goal because under this goal funniness constituted a high-level construal of the films. Thus, temporal distance increased the influence of the value of high-level construals of future options, whether this value was affective or cognitive.

Although these findings are consistent with CLT, they should be interpreted with caution. One could argue that funniness, although more affective than informativeness, is not quite as visceral or hot as drives related to food, sex, or pain and thus should not be predicted to discount steeply over time delay (Loewenstein, 1996). It would therefore be interesting to examine cases in which stronger emotional aspects constitute high-level construals. For example, for some people, romantic love and sexual attraction are primary characteristics in a spouse, whereas financial prospects are secondary. CLT would predict that for those people considerations related to money would be absent from distant-future contemplations about potential romantic candidates but would nevertheless creep into near-future decisions. However, as proposed by Metcalfe and Mischel (1999), affective (hot) value is typically represented at a concrete level, whereas cognitive (cold) value is typically represented more abstractly. That is, in most cases, affective value is likely to be associated with low-level construals.

In summary, the preference studies by Trope and Liberman (2000) demonstrate that the weight of high-level value, compared with the weight of low-level value, is greater in more distant-future decisions. When high-level construals of options were positive, the options were more attractive in the distant future than the near future. But, when high-level construals of the options were negative, they were more attractive in the near future than the distant future. Time delay thus enhanced the influence of the value of high-level construals, whether this value was positive or negative, or affective or cognitive. This pattern of temporal changes in preference was obtained across different manipulations of level of construal and with hypothetical as well as real choices. Temporal distance increased the tendency to choose according to main rather than filler tasks, primary rather than secondary functions of products, and goal-relevant rather than goal-irrelevant aspects of films. In all of these cases, core aspects of options were more influential in choices for the distant future, whereas incidental aspects of options were more influential in choices for the near future. Together, these findings provide converging evidence for the CLT prediction that value is augmented or discounted with temporal distance depending on whether the value is associated with high-level construals or low-level construals of an activity.

Hyperbolic Time Discounting and Magnitude Effects

Can hyperbolic time discounting account for our findings? Hyperbolic discounting assumes that the discounting rate becomes steeper as one gets closer in time to experiencing an outcome (see, e.g., Ainslie & Haslam, 1992; Green et al., 1994; Loewenstein & Prelec, 1992; Rachlin, 1995; D. Read et al., 1999). Therefore, when a future activity has immediate and delayed outcomes, more weight should be given to the immediate outcomes than to the delayed outcomes in near-future compared with distant-future decisions. This hypothesis cannot account for our findings because in most of our studies (Trope & Liberman, 2000, Studies 3–5) low-level outcomes and high-level outcomes were concurrent rather than immediate versus delayed. For example, participants in the task-preference study expected to experience the boring or interesting main and filler task in the same occasion. In other studies, the immediacy of outcomes and construal level were fully unconfounded. For example, it might be argued that in the film-choice study funniness was an immediate outcome and informativeness a delayed outcome. However, both funniness and informativeness were either goal relevant or goal irrelevant. The finding that goal-relevant outcomes were more influential in the distant future cannot be explained by immediacy because goal-relevant and goal-irrelevant outcomes did not differ in immediacy.

Another possible interpretation of the findings is in terms of the magnitude effect, namely, a slower discounting rate for large outcomes than for small outcomes. It might be argued that high-level construals are more influential in the distant future because the value of these construals is greater than that of low-level construals. For example, the finding that goal-relevant features are more influential in the more distant future may be simply because the same feature has greater value when it is goal relevant than when it is goal irrelevant. Note, however, that the magnitude hypothesis requires that the weight of high-level value be greater than that of low-level value in both near-future and distant-future decisions. This is not necessarily the case in CLT: Low-level construals may dominate near-future preferences but not distant-future preferences. Consistent with CLT, some of our studies (see Trope & Liberman, 2000, Study 5) showed that the weight of low-level value is greater than that of high-level value in near-future preferences but not in distant-future preferences. For example, the film-preference study shows that the goal-relevant value of a film was more influential than its goal-irrelevant value in making distant-future film choices but not near-future film choices. Moreover, the research described in the next section shows that in distant-future choices the value of outcomes is more influential than the ease of attaining those outcomes, whereas the reverse is true for near-future choices. Such preference reversals are hard to account for in terms of simple magnitude effects.

CLT has important implications for real-life decision situations in which the available options entail a trade-off between one's primary and secondary interests. This theory suggests that primary interests, compared with secondary interests, may carry more weight in distant-future than near-future decisions. Secondary advantages or disadvantages of distant-future activities are therefore unlikely to prevent one from making unequivocal decisions according to their primary, superordinate goals. However, as one gets closer in time to engaging in the activities, secondary considerations may become increasingly influential and capable of inducing conflict and hesitation. It is interesting to note that despite the uncertainty that is inherent in evaluating the distant future, temporal construal may actually produce clearer preferences regarding the distant future than the near future (see Liberman & Trope, 2003; Trope & Liberman, 2003).

The Influence of the Feasibility and Desirability of Outcomes on Preference

An important difference between high-level and low-level construals of goal-directed action is their emphasis on the desirability versus feasibility of outcomes. Desirability refers to the value of an

action's end state, whereas feasibility refers to the ease or difficulty of reaching the end state. For example, desirability concerns the value of receiving a job offer, whereas feasibility concerns the amount of time and effort one has to invest to get the job offer. Desirability reflects the superordinate why aspects of an action, whereas feasibility reflects the subordinate how aspects of an action (Carver & Scheier, 1981, 1990, 1999; Vallacher & Wegner, 1987). According to Vallacher and Wegner (1987), why aspects of an action are more abstract and better convey the action's meaning than how aspects. Desirability considerations thus constitute high-level construals of actions, whereas feasibility considerations constitute low-level construals of actions. Given this assumption, CLT predicts that desirability considerations are more likely to guide distant-future preferences, whereas feasibility considerations are more likely to guide near-future preferences. Below, we explore some of the implications of this prediction.

Choice and Overcommitment

The predicted temporal changes in the influence of feasibility and desirability considerations have important implications for future choice and planning. Liberman and Trope (1998) tested some of these implications. One of the studies (Study 4) used a realistic choice situation. Tel Aviv University students taking an introductory social psychology course were presented with a choice among several course assignments. The assignments were either easy (based on readings in Hebrew, the students' native language) or difficult (based on readings in English, a foreign language for these students) and either on an interesting topic (e.g., romantic love) or on an uninteresting topic (e.g., history of social psychology). In this situation, the difficulty of the assignment represents a feasibility consideration and the interest level of the assignment represents a desirability consideration. Students had to submit both a near-future and a distant-future assignment. They were told that they would have 1 week to work on each assignment but that the near-future assignment (reading materials and essay questions) would be given immediately whereas the distant-future assignment would be given 9 weeks later.

Consistent with CLT, students' preferences showed that time delay decreased the effect of the difficulty of the assignments and increased the effect of the interest level of the topic of the assignments. The preference for the easy but uninteresting assignment decreased over time, whereas the preference for the hard but interesting assignment increased over time. Thus, in selecting a near-future assignment, students were willing to sacrifice interest for the sake of ease. In contrast, in selecting a distant-future assignment, students were willing to sacrifice ease for the sake of interest, thus committing themselves to a desirable but less feasible task. These temporal shifts in preferences occurred despite the fact that students had the same amount of time (1 week) to prepare the near-future and the distant-future assignments. A similar temporal pattern was obtained with various other options (Liberman & Trope, 1998, Study 2). For example, a guest lecture was described as interesting or uninteresting (desirability information) and scheduled at a convenient or inconvenient time (feasibility information), and a word processor was described as new or old (desirability information) and as easy or hard to learn to use (feasibility information). In the choices made among such options, temporal distance decreased the effect of feasibility information and increased the effect of desirability information on choice. These finding suggest that for the distant future individuals commit themselves to options with outcomes that may be infeasible but highly desirable whereas for the near future individuals prefer options with outcomes that are less desirable but highly feasible.

Feedback seeking is another important decision that often pits feasibility against desirability concerns. Freitas, Salovey, and Liberman (2001) reasoned that feedback seeking involves a conflict between the goal of gaining information about oneself (a desirability consideration) and the difficulty of being exposed to self-evaluation (a feasibility consideration). They therefore predicted, and actually found, that distant-future feedback preferences depended on the accuracy of the offered feedback whereas near-future feedback preferences depended on the evaluative implications of the feedback. Informative but unflattering feedback was preferred for the distant future, whereas uninformative but flattering feedback was preferred for the near future.

How do individuals decide how much time they should allocate to different activities in the near and the distant future? To address this question, we conceptualized time constraints as a feasibility aspect of an activity and investigated the role of time constraints and desirability of activities in near- and distant-future planning (Liberman & Trope, 1998, Study 5). Participants indicated how many hours they would spend on each of several academic activities (e.g., studying and attending classes) and nonacademic activities (e.g., watching TV and paid work) during either "next week" or "a week a year from now." The results showed that a greater total number of hours was planned for the activities during a distant-future week (81.5 hr) than during a near-future week (67.5 hr). Moreover, the time planned for academic activities and the time planned for nonacademic activities were negatively correlated for the near future, $r(65) = -.42$, but not for the distant future, $r(62) = .09$. These findings suggest that feasibility concerns—time constraints and the competition between activities for one's time resources—are less prominent in planning the more distant future. Instead, such plans are primarily guided by the desirability of the activities. In making distant-future plans, individuals seem to consider each activity in isolation and fail to take into account that each activity they plan comes at the expense of some other activities they may want to engage in at the same time.

Gambling Preferences

The distinction between the feasibility and desirability of outcomes may be extended to games of chance—gambles characterized by probability of winning and the monetary payoff associated with winning. According to CLT, payoff is the superordinate consideration because the payoff determines the desirability of the end state of a gamble. The probability of winning is a subordinate consideration having to do with the properties of the random mechanism, devise, or procedure that determine the feasibility of winning. In the normative expected utility model, probability and payoffs combine multiplicatively and therefore have symmetric weight in determining the attractiveness of gambles. However, people may view the probability of winning as subordinated to the payoff; that is, they may think that probability is important only if the payoff is high. The payoff, conversely, may be viewed as superordinate—as important regardless of whether the probability of winning is high or low.

To test the assumption that probabilities are subordinate to payoffs, Sagristano, Trope, and Liberman (2002) presented participants with lotteries in which payoffs and probability had a similar potential contribution to expected utility. Participants indicated how important would be probability (payoff) information, given that the level of payoff (probability) was either high or low. The results showed that interest in probability information depended on the level of payoff more than interest in payoff information depended on the level of probability. Specifically, when payoff was low, interest in probability was quite low, much lower than the interest in probability when payoff was high. In contrast, interest in payoff was high regardless of whether the probability was high or low.[1] These results support our assumption that probability is subordinate to payoff in games of chance, in the same way that feasibility is subordinate to desirability in situations with controllable outcomes. From the point of view of CLT, this should make probability more influential in choosing a near-future gamble and payoff more influential in choosing a distant-future gamble.

A series of studies on preference for near- and distant-future gambles tested these predictions (Sagristano et al., 2002). For example, one of the studies assessed monetary bids for gambles to be played on that day or 2 months later. Participants were presented with a set of 20 bets that varied in probability of winning (.1, .3, .5, .7, and .9) within each of four levels of expected value ($4, $6, $8, and $10) and were asked to state the amount of money they were willing to bid to play each gamble. As expected, for near-future gambles, bids were highest for high probability–low payoff bets, whereas for distant-future gambles, bids were highest for low probability–high payoff bets. Thus, preference among near-future gambles was primarily based on probability of winning, whereas preference among distant-future gambles was primarily based on the payoffs associated with winning. It is important to note that temporal distance changed the effect of both payoffs and probability; that is, the effect of payoffs increased and, independently, the effect of probabilities decreased with temporal distance. The reasons participants provided for choosing a gamble showed a similar temporal pattern. Near-future gambling choices were primarily justified in terms of the probability of winning, whereas distant-future gambling choices were primarily justified in terms of the payoffs associated with winning.

These findings extend CLT to uncontrollable, random outcomes. People conceive of probabilities of winning as subordinate to payoffs, which in turn should render probabilities more influential in near-future gambling choices and payoffs more influential in distant-future gambling choices. Indeed, less risky gambles with high probability of winning of a small prize were more attractive in the near future, whereas more risky gambles with low probability of winning a large prize were more attractive in the more distant future.

Together, the studies reviewed in this section (Liberman & Trope, 1998; Sagristano et al., 2002) support the application of CLT to temporal changes in the effects of feasibility and desirability information on preference. A distant-future lecture was chosen according to its topic, whereas a near-future lecture was chosen according to the convenience of its timing. A distant-future reading assignment was chosen according to its interest level, whereas a near-future assignment was chosen according to its difficulty. A distant-future gamble was chosen according to the value of the outcome, whereas a near-future gamble was chosen according to the probability of the outcome. In all of these cases, an irreversible decision was made at the same point in time regarding near- or distant-future options. Moreover, at the time of the decision, similar feasibility and desirability information was available for both the near- and distant-future options. Nevertheless, feasibility information was more influential in decisions regarding near-future options, whereas desirability information was more influential in decisions regarding distant-future options. Thus, these findings cannot be explained by temporal differences in availability of feasibility versus desirability information or by the ability to postpone the use of one of these types of information when it pertains to distant-future options.

Cybernetic and Mind Set Theories of Action Control

The temporal changes in the role of feasibility and desirability concerns are related to cybernetic theories of action control (Carver & Scheier, 1981, 1990, 1999; Vallacher & Wegner, 1987), which maintain that goals are translated into subgoals when time of implementation approaches. Action identification theory (Vallacher & Wegner, 1987) specifically proposes that individuals naturally prefer high-level identifications and that they lower the identification level only to execute the action when difficulties in enactment are encountered. By this logic, however, identification of an easy action will remain high even in a proximal temporal perspective, and as a result, time perspective will have a weaker effect on preferences among easy actions compared with preferences among difficult ones. This was not the case in our studies. Unlike action identification theory, CLT proposes that temporal distance may affect level of construal of an action even when its enactment is not difficult. For example, in one of our construal studies (Liberman & Trope, 1998, Study 1), participants tended to restate "watching TV" in the near future as "flipping channels," although this action is not particularly difficult. Moreover, CLT applies to options whose outcomes do not depend on one's action, as our gambling studies show.

Gollwitzer's (1990) mind set theory proposes a distinction between a predecisional deliberation phase and a postdecisional implementation phase. In the deliberation phase, individuals compare an action with its alternatives, whereas in the implementation phase, individuals focus on means for carrying out the action. It seems likely that individuals shift from a deliberation mode to an implementation mode as they get closer in time to actual engagement in an activity. However, a key difference between mind set theory and CLT is that the latter predicts differences in construal when time perspective is varied within the same stage, pre- or

[1] Sagristano et al. (2002) also found that people treat feasibility as subordinate to desirability in controllable situations. Participants were presented with choice situations involving both feasibility and desirability and asked to indicate the importance of feasibility (desirability) information, given that the desirability (feasibility) was either high or low. As expected, interest in feasibility information (e.g., the difficulty of getting concert tickets) depended on the level of desirability (e.g., whether the band was attractive) more than interest in desirability information depended on the level of feasibility. Specifically, interest in feasibility was much lower when desirability was high than when desirability was low. In contrast, interest in desirability was high regardless of whether feasibility was high or low.

postdecisional, and even when no decision is involved at all. Indeed, all our studies (Liberman & Trope, 1998; Sagristano et al., 2002; Trope & Liberman, 2000) assessed predecisional preferences or examined construal of future events that do not require making a decision.

Future Optimism

Finally, our findings are related to future optimism, the tendency to hold more positive expectancies for distant- than near-future outcomes (Gilovich, Kerr, & Medvec, 1993; Mitchell et al., 1997; Nisan, 1972; Savitsky, Medvec, Charlton, & Gilovich, 1998; Shepperd, Ouellette, & Fernandez, 1996; Taylor & Brown, 1988; Weinstein, 1980, 1989). Future optimism would suggest that temporal distance increases the perceived feasibility of outcomes. This notion may explain some but not all of our findings. Specifically, future optimism may explain the increase over time in preference for the difficult but highly desirable options, as individuals presumably become increasingly confident over time in the attainability of the outcome. However, future optimism cannot explain the decreased preference for easy but less desirable options because, unlike CLT, future optimism does not take into account temporal changes in the weight of desirability factors.

There is another difference between future optimism and CLT. Future optimism suggests that individuals undertake harder activities for the distant future than for the near future because distant-future activities seem more feasible. Temporal construal, alternatively, suggests that individuals undertake harder activities for the distant future because feasibility receives less weight in distant-future activities. We propose, then, that overoptimistic decisions regarding future activities may reflect underweighting rather than overestimation of feasibility. One puzzling aspect of future optimism is people's apparent failure to learn from experience; that is, repeatedly experiencing that activities are more difficult and take more time than initially assumed does not significantly change people's optimism (Buehler, Griffin, & Ross, 1994). This aspect of optimism is consistent with CLT because if people underweight feasibility in distant-future decisions, then learning that activities are less feasible than expected would have little impact on such decisions.

Temporal Changes in Prediction

CLT proposes that temporal construal processes affect prediction in the same way they affect preference. The greater the temporal distance from a future situation, the more likely are predictions to be based on the implications of high-level rather than low-level construals of the situation. As discussed earlier, we found that the distant future is construed in terms of relatively simple, abstract representations, whereas the near future is construed in terms of more complex, concrete representations (Liberman et al., 2002). Normatively, predictions about the more distant future should be made with less confidence because it is harder to make accurate predictions about the distant future than the near future. However, if people base their predictions for the more distant future on higher level construals and if high-level construals promote greater confidence, then people may feel no less and even more confident in predicting the distant future than the near future.

The distinction between concrete and abstract construals of behavior has been of central importance in person perception research (Gilbert & Malone, 1995; Heider, 1958; Jones & Davis, 1965; Trope, 1986). This research has shown that that perceivers use the same behavioral information to draw different kinds of inferences about others. Sometimes, perceivers use this information as a basis for inferring another person's situation-specific mental states, namely, personal expectancies, values, and goals. Often, inferences from behavioral information proceed to a more abstract level of global traits (Trope, 1989; Trope & Liberman, 1993). Situation-specific mental states correspond to cognitive–affective mediating units in Mischel and Shoda's (1995) theory of personality (see Idson & Mischel, 2001). Global trait concepts (e.g., extraversion and emotional stability) refer to more general, decontextualized characteristics that are invariant across different situations. In terms of CLT, inferences of global traits constitute relatively high-level construals of behavior, whereas inferences of situation-specific states constitute relatively low-level construals of behavior. Therefore, global traits should receive more weight and situation-specific states should receive less weight in predicting others' behavior in a distant-future situation than in a near-future situation. Two studies by Nussbaum, Trope, and Liberman (2003) explored the implications of this hypothesis for prediction of others' behavior.

Predictions Based on Situationally Constrained Behavior

A considerable amount of person perception research has demonstrated the correspondence bias, namely, the tendency to attribute situationally constrained behavior to the corresponding personal disposition (see Gilbert & Malone, 1995; Jones, 1979). In terms of CLT, this bias reflects a high-level construal of behavior in terms of abstract, decontextualized dispositions (see Fiedler, Semin, Finkenauer, & Berkel, 1995; Semin & Fiedler, 1988; Semin & Smith, 1999). The correspondence bias is therefore more likely to be manifested when situationally constrained behavior is used for making distant-future rather than near-future predictions.

Nussbaum et al. (2003, Study 1) used the Jones and Harris (1967) attitude attribution paradigm to test this hypothesis. Participants enrolled in Tel Aviv University read an essay arguing in favor of Israel's withdrawal from Lebanon. (The study was conducted a few months before Israel's withdrawal from Lebanon in June 2000.) Participants were told that the essay was written by a student who had been instructed either to express his or her own opinion (unconstrained condition) or to argue in favor of withdrawal from Lebanon (situationally constrained condition). Participants were asked to estimate the likelihood that the writer would express prowithdrawal attitudes in a variety of near-future (next day) or distant-future (a year later) situations (e.g., express prowithdrawal attitudes in conversations with friends or attend a prowithdrawal rally).

The results showed the judged likelihoods of essay-consistent (prowithdrawal) behavior in the near future were more moderate when situational constraints were present than absent, whereas these judged likelihoods for the more distant future were high regardless of the presence or absence of situational constraints. Thus, whereas near-future predictions showed substantial situational discounting, distant-future predictions showed little or no situational discounting. These findings demonstrate that the cor-

respondence bias, the tendency to underweight situational constraints on observed behavior, is more pronounced when this behavior is used for predicting distant-future than near-future behavior. When making distant-future behavior predictions, participants treated the situationally constrained essay as diagnostic of the correspondent attitude and predictive of a variety of attitude-related behaviors. In contrast, when making near-future behavior predictions, participants treated the situationally constrained essay as less diagnostic of the correspondent attitude and much less predictive of other behaviors. In terms of CLT, the writer's general attitude constituted a high-level construal of the essay writing and was therefore more influential in guiding predictions about the writer's distant-future than near-future behavior. Ironically, then, a person's situationally constrained behavior led participants to predict with greater confidence what that person would do in a distant-future situation than in a near-future situation!

Predicted Cross-Situational Consistency in Behavior

According to CLT, global traits constitute high-level construals of behavior, whereas situation-specific states constitute lower level construals of behavior. CLT therefore predicts that perceivers would expect others to behave more consistently across different situations in the distant future than in the near future. Nussbaum et al. (2003, Study 2) tested this hypothesis by asking participants to predict an acquaintance's behavior in four different situations (e.g., a birthday party and waiting in line) in either the near future or the distant future. Participants predicted the extent to which their acquaintances would display 15 trait-related behaviors (e.g., behave in a friendly vs. unfriendly manner) representative of the Big Five personality dimensions (Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Intellect). Cross-situational consistency was assessed by computing for each of the 15 traits (a) the variance in predicted behavior across the four situations and (b) the correlations among the predicted behaviors in the four situations.

As hypothesized, the results showed that participants expected others to behave more consistently across distant-future situations than across near-future situations. This was manifested in both lower cross-situational variance and higher cross-situational correlations for distant-future behavior predictions than for near-future behavior predictions. Consistent with CLT, this study suggests that people are more likely to use abstract, decontextualized trait concepts in predicting distant-future than near-future behavior.

In summary, predictions of future events seem to systematically change as a function of temporal distance from those events. Like changes in preferences and choice, changes in prediction can be traced to the way individuals construe near-future and distant-future events. The greater the temporal distance, the more likely are individuals to base their predictions on abstract representations of the future. For example, when making distant-future predictions about another person, individuals form a simplified representation of observed behavior in terms of global trait concepts, but when making near-future predictions, individuals form a more complex representation that takes into account the context in which the behavior occurs (see Idson & Mischel, 2001).

The present proposal is consistent with the view that people mispredict the future because they tend to rely on oversimplified representations of future situations. This view is shared by a variety of research programs on the psychology of prediction, including research on overconfidence (Dunning, Griffin, Milojkovic, & Ross, 1990; Griffin et al., 1990), the planning fallacy (Buehler et al., 1994; Kahneman & Lovallo, 1991; Kahneman & Tversky, 1979), and affective forecasting (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998; Gilbert & Wilson, 2000; Kahneman & Snell, 1990, 1992; Wilson, Wheatley, Meyers, Gilbert, & Axsom, 2000). CLT further suggests that temporal distance increases the reliance on oversimplified representations of future situations and thus the tendency to make overconfident predictions in those situations in which simplicity promotes confidence.

General Discussion

Extensive research in psychology and behavioral economics has shown that judgments and decisions regarding future events depend on temporal distance from those events. A course of action that seems desirable in the distant future may seem undesirable in the near future and vice versa. As a result, past decisions may sometimes seem regretful and even puzzling as one gets closer in time to implementing those decisions. CLT suggests that temporal distance affects preferences and judgments by changing the way individuals mentally represent future events. The greater the temporal distance from future events, the more likely are the events to be represented in terms of a few abstract and core features (high-level construals) rather than in terms of more concrete and superficial features (low-level construals). Therefore, temporal distance changes judgments and decisions because in the distant future, compared with the near future, judgments and decisions are more likely to reflect the evaluative and informational implications of high-level construals than those of low-level construals. This section summarizes our research and relates CLT to extant time-discounting theories.

Temporal Changes in Construal, Preference, and Prediction

Our construal studies tested the assumption that distant-future events are construed on a higher level than are near-future events. Several findings corroborate this assumption. Distant-future activities were described in terms of abstract, superordinate goals, whereas near-future events were described in terms of subordinate goals (Liberman & Trope, 1998). The same set of items was classified into broader categories when the items were part of distant-future rather than near-future activities. Fewer dimensions were found to underlie participants' preferences for the more distant future. Finally, distant-future construals showed greater intercategory variability and smaller intracategory variability (Liberman et al., 2002). Together, these findings support the basic premise of CLT that individuals use simpler and more abstract mental models to represent information about events in the distant future than in the near future.

The preference studies examined the implications of temporal construal for temporal change in preference among options that had positive or negative low-level construals and high-level construals. One series of studies varied level of construal by using options with primary versus secondary aspects (Trope & Liberman, 2000). The findings showed that as temporal distance in-

creased, the value of high-level construals became more influential whereas the value of low-level construals became less influential in determining preferences. These temporal changes held true for both positive and negative value as well as affective and cognitive value. Another series of preference studies focused on the implications of CLT for time-dependent changes in the role of two particularly important types of high-level and low-level aspects of activities, namely, the desirability of outcomes and the feasibility of attaining the outcomes (Freitas et al., 2001; Liberman & Trope, 1998). CLT proposes that desirability concerns constitute high-level construals of activities whereas feasibility concerns constitute low-level construals of activities. Consistent with this proposal, our studies showed that feasibility concerns were more important in near-future choices whereas desirability concerns were more important in distant-future choices.

Special attention was given to preference among gambles characterized by probability of winning and monetary payoff (Sagristano et al., 2002). The authors found that relatively safe gambles—those with a high probability of winning a small prize—were more attractive in the near future whereas risky gambles—those with a low probability of winning a large prize—were more attractive in the distant future. As predicted by CLT, temporal distance increased the weight of the payoff and decreased the weight of the probability of winning the payoff. This finding extends CLT to preference among options with uncontrollable outcomes.

Finally, Nussbaum, Trope, and Liberman (2003) applied CLT to prediction. According to CLT, the greater the temporal distance from an event, the more likely are predictions to be based on high-level, decontextualized construals of the event. Because such construals usually foster more confidence, CLT predicts more confidence in predicting distant-future than near-future events. Indeed, the authors found that perceivers treated others' situationally constrained behavior as more predictive of others' distant-future than near-future behavior and that perceivers anticipate greater cross-situational consistency in others' distant-future than near-future behavior. These findings suggest that people tend to rely more on global traits in predicting others' more distant behavior.

Relating CLT to Time-Discounting Theories

As described before, time-discounting theories have identified a number of factors that affect temporal change in value (affect, valence, magnitude, and immediacy). CLT extends this work by examining the representational mechanism (temporal construal) that underlies temporal changes in value. The time-discounting factors identified by past research may affect temporal changes in value via processes that are unrelated to temporal construal. It is interesting, however, to examine some of these effects from the perspective of CLT (for a more detailed discussion, see Liberman & Trope, 2003; Trope & Liberman, 2003). Consider first *affect-dependent discounting* (Loewenstein, 1996; Metcalfe & Mischel, 1999). Mischel and others' work on self-control (Metcalfe & Mischel, 1999; Mischel et al., 1989) suggests that affective value is associated with concrete, vivid properties (e.g., "the taste of a cake") whereas cognitive value is associated with more abstract and features (e.g., "caloric content"). Affective experiences may also serve as information and the heuristic basis for evaluation and decisions (Loewenstein et al., 2001; Schwarz & Clore, 1988; Slovic, Finucane, Peters, & MacGregor, in press). Such experiences tend to be concrete rather than abstract (Sloman, 1996) and thus constitute low-level rather than high-level construals of the decision situation. The concreteness of affective value and the abstractness of cognitive value may contribute to the steeper time discounting of affective value.

Conflict models predict greater time discounting of negative than positive value (Lewin, 1951; Miller, 1944). Although this prediction has received little support in research on decision making with monetary outcomes (Benzion et al., 1989; Loewenstein, 1987; Thaler, 1981; but see Losco & Epstein, 1974; Shelley, 1994), it seems an intuitively plausible factor in goal pursuit. In terms of CLT, positive outcomes are sometimes part of people's goals (e.g., "seeing a movie") and thus part of high-level construals of an activity, whereas negative outcomes are incidental costs that are imposed by circumstances (e.g., "waiting in line") and thus part of low-level construals of an activity. This difference in construal would promote the influence of positive outcomes, compared with negative outcomes, in the more distant future, as conflict models predict.

Hyperbolic discounting assumes that the discounting rate becomes steeper as one gets closer in time to an outcome (see, e.g., Ainslie & Haslam, 1992; Loewenstein & Prelec, 1992). Outcome delay should therefore produce greater discounting in near- than distant-future decisions. From the perspective of CLT, outcome delay or how long one has to wait to receive an outcome (e.g., a payment) may be a secondary, low-level feature, compared with the value of the outcome itself (e.g., the magnitude of the payment). This, in turn, may favor a greater influence of outcome delay in the near than distant future, as hyperbolic time discounting predicts.

Construal level may also be related to the *magnitude effect*. Highly valued outcomes are often part of high-level construals. People are likely to consider their more central, high-level goals in relation to large awards (e.g., $10,000) than in relation to small awards (e.g., $10). Indeed, Thaler (1981) has argued that small amounts are mentally coded as checking accounts to be used for immediate expenses whereas large amounts are mentally coded as saving accounts to be used for distant-future expenses. These differences in construal may contribute to discount large outcomes less than small outcomes (e.g., Benzion et al., 1989; Chapman, 1996; Green et al., 1997).

It is important to note that CLT addresses the effect of temporal distance on subjective value and is silent on the effect of distance on other motivational variables. For example, Brown's (1948) classic studies found that rats were pulling a harness more strongly the closer they were to an unconditioned stimulus. One explanation of this effect (see, e.g., Förster, Higgins, & Idson, 1998) is that in close proximity to an appetitive stimulus each unit of effort (e.g., one step by the rat) produces a relatively large change in the distance from the stimulus whereas farther away from the stimulus the same amount of effort produces a relatively smaller change. In this case, the increased motivation (i.e., harder pulling) closer to the goal may be due to changes in the perceived instrumentality of one's efforts rather than changes in the subjective value of the stimulus in question. More generally, some distance-related gradients in motivation may be produced not only by changes in the subjective value of an outcome but also by changes in the per-

ceived instrumentality of one's efforts or changes in the strength of the perceived contingency between one's efforts and the outcome. Therefore, the existence of these gradients is not inconsistent with CLT, as their effects may coexist with the effects outlined in this article.

CLT is consistent with research on the psychology of prediction, which suggests that prediction biases and errors are often due to the way individuals mentally represent the future. For example, Sherman (1980) argued that individuals often mispredict their own behavior because they tend to rely on an abstract, schematic representation of how they would ideally behave and to neglect "non-schematic, mundane issues of availability of time and energy" (p. 212). Overreliance on schematic models of future situations has also been shown to underlie individuals' overconfident predictions (Dunning et al., 1990; Griffin et al., 1990). It has been argued that the planning fallacy can be traced to individuals' reliance on oversimplified representations of future tasks—representations that do not capture the full complexity of these tasks (Buehler et al., 1994; Kahneman & Lovallo, 1991; Kahneman & Tversky, 1979; Newby-Clark, Ross, Buehler, Koehler, & Griffin, 2000). Similarly, Kahneman and Snell (1990, 1992) proposed that individuals are often inaccurate in predicting how much they will enjoy future consumption of goods because they tend to base their predictions on general intuitive theories of changes in hedonic utility. Recently, Gilbert, Wilson, and colleagues (see Gilbert et al., 1998; see also Gilbert & Wilson, 2000; Wilson, Gilbert, & Wheatley, 1998; Wilson et al., 2000) proposed that individuals overestimate the intensity and duration of their reactions to future events because they tend to focus on salient consequences of the events and underestimate the diluting effect of contextual factors.

CLT extends these lines of research by proposing that the same information is likely to be represented more schematically when the information pertains to more distant-future events. The prediction biases and errors that result from such representations are therefore more likely to characterize distant-future than near-future predictions. Construal and prediction studies (Liberman et al., 2002; Liberman & Trope, 1998; Nussbaum et al., 2003) support this proposal. In summary, CLT suggests a general construal mechanism that applies to temporal change in value as well as to temporal changes in thought, planning, and prediction. As discussed in the next section, the same construal mechanism may also apply to temporal distance from past events and other dimensions of psychological distance.

Implications and Extensions

This section explores the implications of temporal construal for self-regulation and discusses the origin of temporal construal and its relationship to other perspective-dependent construals.

Temporal Construal and Self-Regulation

In social psychology, attitudes have been viewed as general cognitive–emotive structures that guide behavior across different situations (Eagly & Chaiken, 1998). CLT would therefore predict that attitudes are more likely to be invoked as guides for one's distant-future behavior than for one's near-future behavior. For example, the decision to donate blood in the distant future is likely to reflect one's attitude toward blood donation, whereas the decision to donate blood in the near future is more likely to reflect specific situational factors, such as when and where the blood donation will take place. As a result, general preexisting attitudes are likely to be better predictors of distant-future than near-future behavioral intentions. The same logic may apply to stereotyping. Inasmuch as stereotypes constitute abstract representations of social group members (Fiske & Neuberg, 1990), they should, according to CLT, guide distant-future behaviors more than near-future behaviors toward group members (e.g., LaPiere, 1934).

Social values (e.g., independence, freedom, and equality) may constitute even more abstract psychological guides than attitudes (Rokeach, 1968; Shwartz & Bilsky, 1987). CLT therefore predicts that values and ideologies are more likely to be expressed in more distant-future plans. In the distant future, overarching social values and ideologies may become the primary guides for responding to a wide range of situations. In the near future, low-level specifics of each situation are likely to be salient and guide behavior. In response to social group members, this would mean that when one's values prohibit stereotyping (as is often the case, for example, with racial stereotypes), then less stereotyping would be expected in distant-future than near-future responses. If, however, social norms or values do not prohibit the use of stereotypes (e.g., stereotypes of politicians; see Macrae, Bodenhausen, & Milne, 1998), then more stereotyping would be expected in distant-future than near-future responses.

Possibly, people perceive their values and ideological convictions as central to their self-identity and pragmatic, situational considerations as less central. If so, CLT predicts that people would feel that their self-identity would be expressed in the distant future but not in the near future. Ironically, by expecting their true preferences, convictions, and values to be expressed only in the distant future, people may end up rarely, in fact, revealing their true self. People may, for example, think that reading art books or taking hiking trips is an important part of their self-identity, constantly plan to do these activities in the distant future, but never actually get to do them.

Another interesting consequence of time-dependent differences in abstractness of behavioral guides concerns cross-situational consistency in behavior (Idson & Mischel, 2001; Mischel & Shoda, 1995, 1998; Shoda & Mischel, 1993). The prominence of abstract guides for the distant future is likely to result in a consistent pattern of behavioral decisions across different future situations. If irreversible, these decisions may actually produce a consistent pattern of behavior across situations. In contrast, the prominence of situation-specific concerns in the near future is likely to result in cross-situational variability in behavior. It would be interesting to examine in future research whether near-future decisions tend to be more myopic and intransitive than distant-future decisions.

The Origins of Temporal Construal

Thus far, we have discussed research on temporal construal and its psychological consequences. But, an interesting question remains: Why do people use higher level construals for the distant future than for the near future? What are the origins of temporal construal? We can offer only a speculative answer to this question. As noted earlier, we believe that temporal construal is a generalized heuristic that evolves as a result of repeated association

between temporal distance and people's knowledge about future situations. Ordinarily, low-level information regarding distant-future situations is unreliable or even unavailable. Details about concrete, secondary aspects of future events, the context in which they will occur, and alternative scenarios or courses of action become available and clear only as one gets closer in time to the events. To use a visual analogy, at a greater distance from an object, the main features of the object are more prominent, whereas the details are less prominent. From a distant perspective one sees the forest, but from a proximal perspective one sees trees.

In addition, people are often free to delay or change their decisions regarding distant-future events. This, in turn, may allow them to postpone consideration of low-level information until they get close in time to the event. One can therefore start thinking about a future situation in high-level terms—in terms of one's superordinate goals, general knowledge, and essential aspects of the situation—and only later think about the future situation in low-level terms—in terms of subordinate goals, specific knowledge, and secondary aspects of the situation. An association may thus be established between temporal distance and level of construal. Distant-future situations may activate high-level construals, whereas near-future situations may activate low-level construals.

The research reviewed in this article shows that individuals continue to use high-level construals for distant-future events and low-level construals for near-future events even when the information about near-future and distant-future events is the same and the decision is irreversible at both points in time. For example, our participants received the same desirability and feasibility information about near-future and distant-future activities and were well-aware that the decision regarding these activities was final. Nevertheless, decisions about distant-future activities were made according to desirability information, whereas decisions about near-future activities were made according to feasibility information. Thus, temporal construal may evolve as an overgeneralized heuristic that is applied to situations in which it is neither appropriate nor necessary. In near-future decisions, this heuristic may produce underutilization of high-level information, whereas in distant-future decisions it may produce underutilization of low-level information.

This is not to say that temporal construal is uncontrollable. To prevent potentially harmful consequences of neglecting low-level aspects of future situations, socially enforced procedures sometimes require individuals to focus on the concrete details of distant-future situations. These procedures may require individuals to rehearse, practice, or plan in full detail distant-future academic, social, or physical tasks. Practice talks, practice exams, and simulated interviews exemplify such procedures. In effect, they force individuals to respond to distant-future situations as if they were near-future situations. People may thus learn to overcome harmful consequences of neglecting low-level aspects of future situations. Often, momentary discomforts and gratifications prevent people from acting according to their long-term interests (Baumeister & Heatherton, 1996; Metcalfe & Mischel, 1999; Mischel, 1974). For example, minor physical pain may deter patients from undertaking a medical test, noticing a rich chocolate cake may tempt dieters to break a diet, and disagreement may provoke uncontrolled aggression. Aided by social learning, people may sometimes try to counteract these momentary temptations in advance by using self-control strategies (see, e.g., Baumeister & Heatherton, 1996; Kuhl, 1984; Mischel et al., 1989; Trope & Fishbach, 2000; Trope & Neter, 1994). These strategies include elimination of future temptations, self-imposed fines for failure to pursue one's long-term goals, and irreversible precommitment to enacting these goals.

People may also sometimes overcome harmful consequences of insensitivity to high-level aspects of near-future situations. Mischel et al.'s (1989) work demonstrates that an effective way to overcome immediate temptations and successfully delay gratification is to turn attention away from the concrete qualities of the immediate temptation and to focus on its abstract qualities. For example, when a pretzel constituted the tempting, immediate reward that could be traded for a larger reward later, thinking of the pretzel as if it were a picture of a pretzel increased children's ability to delay gratification, whereas thinking about how tasty and crunchy the pretzel is reduced the ability to delay gratification. In our terms, this strategy involves forming a high-level construal of a temporally close option. Thinking of how a near-future choice might affect distant-future outcomes may also promote high-level construal of current options. Merely imagining a distant-future retrospective evaluation of a near-future decision may facilitate high-level construal of the available options. Thus, low-level construals may be enhanced by thinking about distant-future situations as if they were near-future situations, in much the same way as high-level construals may be enhanced by thinking of near-future situations as if they were distant-future situations. Such mental control strategies may act to offset undesirable consequences of the default linkage between temporal distance and level of construal.

The Effect of Level of Construal on Future Time Perspective

Thus far, we examined the effect of temporal distance on the construal of future events. However, if it is true that the distant future is associated with higher construal levels, then the reverse causal path is also possible. That is, level of construal may affect the anticipated temporal distance of future events. For example, construing an action in high-level, abstract terms may make one envision the action in the more distant future than would construing the same action in lower level, concrete terms.

Consistent with this hypothesis, Sherman, Zehner, Johnson, and Hirt (1983; see also Sherman, Cialdini, Schwartzman, & Reynolds, 1985) found that the concreteness of an imagined event was associated with evaluating the event as more likely. Gollwitzer and Brandstaetter (1997; for a review, see Gollwitzer, 1999) showed that forming "implementation intentions"—a concrete plan as to how, when, and where to perform an activity—enhances the likelihood of actually undertaking the activity relative to having more abstract, general intentions to perform the same actions. Although these studies examined the likelihood rather than the expected proximity of actions and events, it could be that a similar mechanism underlies judgments of temporal proximity. That is, high-level, abstract construals of events may prompt estimates of greater temporal distance than would low-level, concrete construals of the same events.

In general, in line with Mischel and colleagues' work on delay of gratification (Mischel, 1974; Mischel et al., 1989), CLT suggests the intriguing possibility that abstract construals promote a distant-future time perspective. Concrete construals may lead in-

dividuals to focus on the present, whereas abstract construals may enable them to transcend the here and now and maintain a more distant-future time perspective (see Sigel, 1970). The ability to form abstract construals may thus play an important role in the development of an extended future time perspective. A related implication of CLT concerns procrastination. Does high-level construal of activities lead not only to imagining performing the activities in the more distant future but also to actually performing them later? Could it be, in other words, that construing activities in high-level terms fosters procrastination of these activities? These questions suggest interesting directions for future research.

Beyond the Future: Other Perspective-Dependent Construals

Future temporal distance is an important but not the sole determinant of level of construal. We believe that, like distant-future perspective, other distal perspectives, compared with proximal perspectives, may be associated with higher level construals. Closely related to CLT is the idea that a distant-past perspective is associated with higher construal levels. This idea is in line with the assumption that concrete details fade away from memory more rapidly than general abstractions (Bartlett, 1932; Gilovich & Medvec, 1995; Hastie, 1981; Hastie, Park, & Weber, 1984; Wyer & Srull, 1986), so that memories of the distant past tend to be more abstract than recent memories. Consistent with this idea, Ross (1989) demonstrated that memories of the distant past are reconstructed according to abstract theories about the domain in question. For example, people recollect being healthier in their youth than they actually were if they subscribe to the theory that health deteriorates with age. McDonald and Hirt's (1997) research shows that memories of specific information about a person's grades are assimilated over time to overall expectancies and general attitudes about the person (liking vs. disliking a person), thus producing a more coherent picture of the target person over time. Mitchell et al. (1997) found that people's recollections of such experiences as a bicycle trip or a trip to Europe become more positive over time, presumably as the details of these events fade from memory and are replaced with a more general schematic (and, in this case, positive) representation. Frank and Gilovich (1989) showed that observers' attributions become more dispositional and less situational over time (see also Funder & Van Ness, 1983; Moore, Sherrod, Liu, & Underwood, 1979; Nigro & Neisser, 1983; Peterson, 1980; but see Burger, 1986).

In terms of CLT, these studies suggest that moving events back in time fosters more abstract construals. Related to this proposal is Semin and Smith's (1999) demonstration of the reverse causal direction, namely, that more abstract construals produce more distant memories. These authors found that when prompted with abstract verb terms (e.g., "please remember an instance of behaving in a helpful way") as opposed to concrete verb terms (e.g., "please remember an instance of helping someone"), people retrieve examples of more distant-past behaviors.

Although these effects of past temporal distance are consistent with CLT, they may result from differential retention of high-level versus low-level information in memory rather than differential construal of the retained information (Bartlett, 1932; Hastie, 1981; Hastie et al., 1984; Wyer & Srull, 1986). For example, information about concrete behaviors and situational constraints may be lost from memory over time more rapidly than more abstract trait information. If so, describing distant-past behavior in terms of abstract traits rather than concrete behaviors may be due to memory processes rather than differences in construal (Hastie, 1981; Hastie et al., 1984).

Level of construal may also be related to social distance dimensions, such as self versus other, in-group versus out-group, and in-role versus out-of-role. Social–cognitive research is consistent with the idea that more abstract construals are applied to other people and out-group members as compared with self and in-group members. Thus, research has shown that people tend to explain others' behaviors in dispositional (i.e., high-level, abstract) terms and their own behavior in situational (i.e., low-level, concrete) terms (Fiedler et al., 1995; Jones, 1976; Jones & Nisbett, 1972; for a review, see Robins, Spranca, & Mendelsohn, 1996). Similarly, research on group perception suggests that out-groups are construed more schematically than in-groups. Compared with in-groups, out-groups are perceived as more homogenous (Jones, Wood, & Quattrone, 1981; Park & Judd, 1990; Park & Rothbart, 1982), as less differentiated into subgroups (Brewer & Lui, 1984; Linville, 1982; Park, Ryan, & Judd, 1992), and as possessing more structured, predictable sets of properties (Linville, Fischer, & Yoon, 1996); and they are described in more abstract terms (Fiedler et al., 1995; Werkman, Wigboldus, & Semin, 1999).

A related social distance dimension involves social roles. Individuals may have multiple social roles (e.g., professor and mother), but at a given point in time, they may enact one particular social role, the active role (e.g., professor). People may form different construals of their active and inactive roles. For example, a person who is currently in the professor role may construe his or her research in low-level terms (as a variable experience that includes many contextual, incidental features like entering and checking data and reviewing papers) and construe parenting in high-level terms (as a uniformly positive experience that includes only prototypical representations of, for example, playing with a perfectly cooperative child in a quiet evening). From the perspective of a parent, however, research would seem to be a serious, uniformly gratifying activity of planning studies and writing papers, whereas parenting would be represented in more variable, concrete, and contextualized terms (e.g., cleaning a messy table after a self-fed meal, driving to school, and constantly looking for lost objects). These role-dependent construals deserve to be examined in future research.

Finally, it may be useful to conceptualize future and past temporal distance, the various instances of social distance (self vs. other, in-group vs. out-group, and active vs. inactive role), and possibly other distance dimensions (e.g., spatial distance, similarity, and certain vs. uncertain and real vs. hypothetical events) within a unified theory of psychological distance, in line with Lewin's field theory (Lewin, 1951). Such unified theory would suggest that similar principles of construal apply across different dimensions of distance and that forming abstract construals is involved in transcending the proximal on all of these dimensions. For example, one would predict, borrowing from the literature on perception of in-groups versus out-groups, more heterogeneous perceptions of the near future and the recent past (compared with the distant future and past), of events that are associated with a currently active role (compared with an inactive role), of geographically proximal (compared with distal) stimuli, of others that

are similar to oneself (compared with others that are dissimilar to oneself), and of certain events (compared with uncertain events). A unified theory of psychological distance would also allow researchers to examine the interrelations among the different dimensions of distance. For example, it is possible that the different dimensions of distance act in a compensatory way, which would imply, for example, that one can use another person's perspective to overcome the tendency to construe near-future events in low-level terms. It is also possible that moving a stimulus on one dimension of psychological distance may cause people to perceive the stimulus as being more removed on other dimensions as well. For example, geographical distance may foster perceptions of dissimilarity, dissimilarity may foster perception of social distance, and so on. Research on these issues can significantly extend past research on time perspective.

Conclusion

CLT proposes that temporal distance changes people's responses to future events by changing the way people mentally represent those events. The greater the temporal distance, the more likely are events to be represented in terms of a few abstract features that convey the perceived essence of the events (high-level construals) rather than in terms of more concrete and incidental details of the events (low-level construals). The informational and evaluative implications of high-level construals, compared with those of low-level construals, should therefore have more impact on responses to distant-future events than near-future events. Using a wide range of research paradigms, the studies reviewed in this article provide converging evidence for the theory. On the basis of this research, we propose that construal level underlies a wide range of evaluative and behavioral consequences of psychological distance from events.

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