The Role of Abstract and Concrete Mindsets on the Purchase of Adjacent Products

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Most choice research has examined how consumers choose in isolation (e.g., within one category at a time). In contrast, real world consumer choice often involves making a series of choices within adjacent categories considered at once (e.g., in the oral care aisle one may consider buying items among toothpaste, mouthwash, floss, etc). This project explores how a consumer’s construal level will influence the number of items purchased when multiple adjacent-category offerings are presented. In a series of studies, we find that consumers with an abstract construal purchase significantly more items from adjacent categories, relative to those with a concrete construal.

[to cite]:

[url]:
http://www.acrwebsite.org/volumes/13496/volumes/v35/NA-35

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SYMPOSIA SUMMARY
Consumers' Construal Levels: Organic Manipulations and Implications for Choice
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SESSION OVERVIEW
In the last decade Construal Level Theory (CLT) has emerged as a major development in social psychology, enhancing our understanding of how people represent and evaluate options (Trope & Liberman, 2003). More recent work has begun to explore the implications that CLT has for consumer choice (Dhar & Kim, 2007). While the original CLT research focused on temporal distance (Trope & Liberman, 2000), it soon expanded to encompass manipulations of psychological distance more generally, showing that variations in psychological distance cause consumers to form different representations of the same stimuli (e.g., products). CLT posits that when psychological distance is greater consumers will have a more abstract construal of a stimulus, forming a higher-level representation focused on central features. Conversely, reducing psychological distance can lead to more concrete construals, characterized by lower-level representations enriched with details (Trope & Liberman, 2003). While the first generation of research questions focused on extending what was known about how psychological distance influenced judgment or simple choice situations, the next generation extends these now established findings into the emerging areas of consumer choice and explores natural environmental variables that can prompt these different construals. For example, consumers often choose among non-comparable options or choose from products in adjacent categories. In these circumstances, factors such as the date or an event’s probability may exert a natural influence on consumers’ construals. As CLT has implications for the decision processes consumers use, CLT allows us to better understand these common consumer choice experiences which have yet to be explored in choice research.

In keeping with the theme of this year’s conference, this session unites papers which approach this issue from different perspectives to explore how CLT can deepen our understanding of consumer choices. At a general level, these papers aim to broaden what is known about the ways in which CLT pertains to consumer choice and encourage researchers to question when our understanding of consumer phenomena may be deepened by incorporating considerations of consumers’ construal levels. At a more specific level, these papers will attempt to answer three questions: How does construal level affect choice among non-comparable options and what is the consequence for deferral? Will the construal level affect adjacent category purchase likelihood? And lastly, what organic factors might manipulate construal levels in a consumer context?

The first two papers directly explore how consumers’ construal levels affect choice. Kim, Khan and Dhar show the effects of CLT on choice satisfaction and deferral rates of consumers across categories (i.e., noncomparable options) and within categories (i.e., comparable options). Through a series of studies, they demonstrate that an abstract construal level decreases no-choice or choice deferral rates and increases choice satisfaction for noncomparable choices and yet has the reverse effect on comparable choices.

In the second paper, Goldsmith and Dhar address an extant void in the literature by exploring how consumer decision processes can change purchase considerations in adjacent product categories (e.g., toothpaste and mouthwash). Specifically, their research explores how a consumer’s construal level of a purchase decision influences the number of items that a consumer purchases when presented with multiple adjacent category offerings. The authors find that having an abstract construal increases the number of adjacent category purchases which consumers made.

However interesting, the effect of consumers’ construal levels on their choice behavior would be meaningless without ecologically valid examples of how their construals might be organically manipulated in an actual decision context. The last two papers in the session bridge this gap by demonstrating two such examples. The third paper by Kim, Malkoc and Zauberman demonstrates that the date can organically influence consumer construals. These authors find that if a date has a special meaning (e.g., Feb 14th) consumers will have a more concrete representation of outcomes to occur on that day. They further show that this change in construal level affects consumers’ inter-temporal preferences and impacts impulsivity.

Lastly, Trope and Wakslak extend what is known about the practical ways in which construal level can be applied to a consumer context exploring probability as psychological distance. As probability may be an organic concern to consumers (e.g., How do I evaluate a restaurant when I have a 5% [95%] chance of getting a reservation?), this manipulation lends itself to consumer applications. In a series of studies, the authors demonstrate that consumers form more concrete representations of high probability events and more abstract representations of low probability events. After presenting his work, Yaacov Trope, one of the founders of CLT, will prompt a discussion aimed at facilitating a broader understanding of the relationship between construal level and consumer choice which we anticipate will be insightful and engaging.

This special session is aimed at furthering current interest in this area and will identify promising directions for future research. Using multiple, yet related, theoretical perspectives these four papers extend what is currently known about when and how consumers’ construal levels can affect their choices. These papers employ a variety of methods and dependent variables (evaluations, choices, matching tasks and categorization tasks) to uncover how consumers’ construal levels can affect choice as well as how construals can be organically manipulated. We anticipate that this session will be attended by consumer researchers in general and by members of ACR who have a particular interest in CLT, consumer inference making, and processing styles. Each of the papers to be presented is grounded in theory and includes multiple completed studies with supporting results.

References
EXTENDED ABSTRACTS

“Choosing Apples vs. Oranges: Role of Construal Levels in Non-Comparable Choices”

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Most consumer research has focused on how consumers make choices among comparable—within product category—items. However, in the everyday life, consumers make choices between items that cannot be directly compared (e.g., a box of Chocolate vs. a CD). Non-comparable choices are intrinsically different from choices between comparable items, which can be easily evaluated on shared features and attributes. Because non-comparable options have fewer or no shared attributes, a choice between them is more effortful and requires an abstract holistic valuation of each option (Johnson, 1984; 1988). The key difference may be the ready availability of decision criteria versus the need to create a general one (Bettman & Sujan, 1987). Consumers too, add difficulty and complications to their choices by focusing on the local context of their choices rather than on the more global context (Dhar et al, 2000). In fact, we know that when individuals cannot compare and distinguish among product attributes consumers’ preference for choice deferral or no-choice increases (Dhar, 1997).

But past research has shown that construal levels can systematically affect consumer choices (e.g., Trope et al, 2007) by altering the way in which individuals process and form representations of stimuli such as a product. Construal level theory (CLT) posits that depending on psychological distance, individuals will process stimuli differently and form different representations of the same stimuli. As psychological distance increases, individuals will take on a more abstract and holistic approach to the stimuli, and as psychological distance decreases, individuals will adopt a more concrete and detail oriented approach to the stimuli (Trope & Liberman, 2003). However, all the research in this area has remained focused on choices between comparable options. We seek to examine the consequences of choosing between non-comparable options through the lens of CLT. The present research suggests that construal levels impact choice between non-comparable options by affecting consumers’ ability to form an overarching decision criterion on which to compare non-comparable items. Specifically, we predict that compared to a concrete construal, an abstract construal, by focusing the individual on higher level representations of the stimuli, will facilitate a choice between non-comparable options.

While an abstract perspective can facilitate choosing between non-comparable options, approaching comparable choices with a high level abstract perspective could inhibit one’s ability to compare the options on their low level attributes. Evaluating comparable products on an abstract level can make them look less distinct (e.g., the “usefulness” of two boxes of chocolate is likely to be more similar than the “number of pieces” in each box) and reduced differences between alternatives can lead to increased choice deferral (Dhar, 1997).

Study 1 tests our main proposition by manipulating construal levels to show the effects on choice deferral for non-comparable options ($20 Starbucks gift card and $20 DVD of their choosing). Participants made a hypothetical choice between these two items; the choice deferral option was presented as a cash option (Simonson & Tversky, 1992) worth half the value. The selection of a cash option would mean that an individual was avoiding having to choose between the two non-comparable options. Participants imagined they would receive their chosen option either tomorrow (near construal) or a month later (distant construal) (Liberman & Trope, 1998). Consistent with our prediction, participants in the abstract construal were less likely to choose cash (7%) and more likely to make a choice than those who imagined receiving their selection the next day (24.1%).

Study 2 shows construal levels have an opposite effect on comparable and non-comparable choices. Participants either wrote down a goal they wanted to achieve by the end of the week (near construal) or by fall 2007 (distant construal). After the goal priming, half of the participants in each condition chose between two non-comparable options as in Study 1 and the other half chose between two comparable options (two DVDs). All participants also had a $10 cash option. As predicted, results showed a significant interaction between the construal level and type of choice (comparable or non-comparable) (p=0.01). In the non-comparable condition choice deferral was lower in the abstract (20%) than in the concrete construal (52.6%); however, in the comparable condition, participants in the concrete were less likely to defer choice (21%) than participants in the abstract construal (52.6%).

As the ability to form a holistic, overall decision criteria to compare non-comparable items is enhanced or depressed through construal manipulation, the post-choice satisfaction individuals feel may also change. Zhang and Fitzsimmons (1999) found that participants’ satisfaction with their choices increased as their abilities to process non-alignable differences was enhanced. Therefore in study 3, we predict and show that an abstract construal increases people’s satisfaction with their non-comparable choices, but decreases satisfaction for comparable choices. We find an interaction effect on choice satisfaction between construal level and choice types and a main effect of construal on satisfaction in the non-comparable condition. Participants gave higher post-choice satisfaction ratings in the abstract (M=7.5) than in the concrete construal (M=6.5), p=.002. Study 3 also replicates the choice deferral findings from study 2.

Lastly, in study 4, we outline that compared to a low level construal, high level construal, will lead to decreased choice difficulty in non-comparable choices. In this study construal was primed by having participants write down either “how” or “why” they studied (Freitas et al, 2004). Subsequently, all participants were presented with a non-comparable choice (box of chocolates vs. video games) and asked to indicate how difficult the choice was on a scale of 1 (not at all) to 9 (very difficult). As predicted, participants found the same choice between two non-comparable options more difficult in a concrete (M=3.67) than in an abstract mindset (M=1.8) (p=.038).

We have shown that consumers’ choice behaviors and consequences in non-comparable options can be affected through the ease with which general decision criteria can be created through construal manipulations.

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ing and guiding others’ self-regulatory efforts,” Journal of Experimental Social Psychology, 40, 739-752.


**“The Role of Abstract and Concrete Mindsets on the Purchase of Adjacent Products”**

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Most choice research has looked at how consumers choose in isolation (e.g., within one category at a time). In contrast, real world consumer choice often involves making a series of choices within adjacent categories that are considered together (e.g., a consumer in the oral care aisle may consider buying one or more items among toothpaste, mouthwash, floss, etc.). Although many brands are widening their within-category product lines to take advantage of this phenomena (e.g., Varadarajan 2007), such extensions into these adjacent product spaces are more likely to generate incremental sales if consumers see such products as complementary rather than as substitutes for one another. Despite its ecological relevance, relatively little research has been devoted to exploring how consumer decision processes may change purchase considerations of other products in adjacent categories.

This project develops a goal theoretic framework to understand how the consumer’s mindset, whether abstract or concrete, influences the likelihood of purchase from adjacent product categories. Specifically, the authors compare the number of adjacent products selected in an abstract mindset to those selected when the consumer is in a more concrete mindset. The recent literature on goals demonstrates that abstract mindsets conjure higher order, super-ordinate goals (Fishbach, Zhang and Dhar 2005, Freitas, Gollwitzer and Trope 2004, Pennington and Roese 2003, Trope and Liberman 2003), whereas concrete mindsets are associated with comparatively lower order concerns (Pennington and Roese 2003, Trope and Liberman 2003). As the mindset of a consumer differentially affects attention to higher order goals, we argue that in an abstract mindset goal activation will spread from the higher order goal (e.g., oral care) to its related sub-goals (e.g., whitening one’s teeth and freshening one’s breath) which will ultimately lead to greater consideration of their associated means (e.g., white strips and breath mints). We propose this pattern of activation results from the cognitive structure of goals (Kruglanski et al. 2002). Conversely, a concrete mindset, which draws attention to lower level concerns, will cause consumers to focus more narrowly on the specific sub-goals themselves. As a consequence, purchasing from a single product category may be sufficient to satisfy their activated narrow goal and consumers will not feel inclined to purchase products from adjacent categories.

This hypothesis is tested in two studies. In the first study, participants completed a mindset manipulation (Freitas, Gollwitzer and Trope 2004) then moved on to a shopping task where they were given the opportunity to purchase products from three categories (hair care, oral care and skin care). Within each category, participants first made an initial choice (e.g., a choice between toothpastes in oral care). Next, they were presented with 5 additional items from adjacent categories (e.g., mouthwash, floss, etc.) and told to purchase any additional items which they would like from that set of options. In line with our prediction, within each category participants put in an abstract mindset purchased more additional items than participants in a concrete mindset (average: $\text{M}_{\text{concrete}}=1.7; \text{M}_{\text{abstract}}=2.4; p<0.05$; pattern replicated and was significant for all categories individually).

Our second study was designed to extend the findings from Study 1. As in Study 1 respondents chose a central item from the category (e.g., toothpaste in oral care) before considering additional purchases, one account for the results that could be that respondents in an abstract mindset might have had greater commitment to the goal of oral care after making an initial successful choice (Fishbach, Zhang and Dhar 2005). Thus, first choosing a toothpaste made respondents subsequently more likely to pursue the goal of good oral care through related means (e.g., additional purchases). The next study controlled for this account by offering all adjacent category items simultaneously. Specifically, after completing a mindset manipulation, participants were shown one category of products (e.g., oral care) containing twenty different items and asked to indicate which items from that category they would like to purchase. In support of our hypothesis, respondents placed in an abstract mindset made significantly more adjacent category purchases (oral care: $\text{M}_{\text{concrete}}=4.7; \text{M}_{\text{abstract}}=6.3; p<0.05$; results were replicated with an additional product category).

We use the relationship between consumer mindsets and regulatory focus to further clarify the process behind why this spreading activation generates greater motivation to purchase in an abstract mindset. An abstract mindset engenders a promotion focus, which is characterized with eagerness towards maximum goal attainment (Higgins 2007, Pennington and Roese 2003). Conversely, a concrete mindset facilitates more balanced thoughts of promotion versus prevention, the latter characterized by attention to “bare necessities” or minimal goal attainment (Higgins 1997, Pennington and Roese 2003). As such, we predict that an abstract mindset will not only facilitate greater activation of adjacent products as related means to the higher order goal, we propose specifically that the promotion focus triggered by this mindset will be the mechanism underlying the effect of mindset on the purchase of adjacent products. Study 3 tests for this using a written protocol design to examine how mindset affects regulatory focus. The results of Study 3 support our prediction. In support of our hypothesis, participants in an abstract mindset purchased more adjacent products (p<0.05). Further, participants in an abstract mindset mentioned more promotion than prevention related thoughts relative to participants in a concrete mindset (p<0.05). Finally, using regression analysis with both mindset and a composite measure of regulatory focus included in the model, we find the composite measure fully mediates the effect of mindset on purchase. This pattern of results is supported by Study 4 where we directly manipulate regulatory focus and demonstrate that participants in a...
promotion focus purchase more adjacent products than participants in a prevention focus (hair care: $M_{\text{prevention}}=3.8; M_{\text{promotion}}=4.9$; $p<0.05$, one tailed).

At present, this research achieves several goals: we demonstrate how one’s mindset can affect the number of purchases which one makes when presented with multiple adjacent category offerings. Further we identify an underlying shift in regulatory focus as the mechanism behind this effect. As how consumers make choices when they consider adjacent categories simultaneously has not yet been examined, we believe this research makes an important contribution to the extant research on consumer choice. Finally we believe that as the factors which influence product perceptions are of critical interest to firms these findings have clear practical implications.

References


“The Role of Special Dates on Intertemporal Preferences”

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Many consumption decisions involve timing considerations. Extant literature demonstrated that consumers often act impulsively (i.e., their preferences imply high discount rates), overweighing the current outcomes and underweighting the future ones (for a review see Frederick, Loewenstein, and O’Donoghue, 2002). Prior research has documented that one source of impatience is the level of concreteness in which the outcome is represented. That is, impatience is increased if the outcome to be forgone is represented concretely (Metcalfe & Mischel, 1999), and that this level of representation could be triggered by the framing of the decision. For instance, Malkoc and Zauberman (2006) have demonstrated that delay frames lead to more concrete representations than expedite frames.

In this work, we suggest that whether the date used in describing delays is special (e.g., February 14th) or non-special (February 15th) would also affect the concretes of outcomes and have consequences for consumer impulsivity. We argue that using special dates to describe deferrals would give meaning to that consumption timing, providing a context to imagine the outcome. Imagining outcomes more concretely would then affect consumer’s impulsivity.

We investigate the role of special dates in consumer impulsivity, in the context of recently demonstrated date/delay asymmetry-higher discounting in delay than in date frame (LeBoeuf 2006; Read et al., 2005). We argue that while the date/delay asymmetry holds for non-special dates, when special dates are used, consumers’ impatience is significantly altered. We predict that if the sooner (later) of the temporally separated outcomes happen on a special date, the impatience will increase (decrease). In particular, if the special date is the sooner of options, this description would make the outcome in the near future more concrete, leading to an increase in impulsivity (compared to non-special date). However, if the special date is the later of options, this description would make the outcome in the distant future more concrete (relative to the near outcome), decreasing impulsivity. Results from two experiments support these predictions.

In study 1, the special date was presented as the sooner of options and thus we expected an increase in discounting with special dates, approximating the delay frame. The study was run three weeks before Valentine’s Day. Participants imagined receiving a coupon for a French restaurant that was redeemable either in three weeks for $75 or in eight weeks for an unspecified amount. We manipulated whether the time was framed as delay (3 weeks vs. 8 weeks), as a non-special date (February 15th vs. March 22nd), or as a special date (February 14th vs. March 21st). The main task was to indicate the matching value of the coupon in eight weeks with the S75 coupon in three weeks. Replicating the date/delay asymmetry, results showed that participants in delay condition indicated higher value for the delayed coupon ($M_r=126.54$) than those in non-special date condition ($M_r=86.92$). More importantly, we found predicted effect of the special date, with higher matching values for the special date ($M_r=118.59$) than for the non-special date. These findings suggest that when temporal distance is described in terms of special dates, the greater discounting of delay versus date is significantly reduced.

To test our second prediction, in study 2 the later of the temporarily separated outcome happened on a special date. We predicted to find a decrease in impulsivity on the special date condition (compared to delay frame and non-special date). This study used 4th of July (Independence Day) as the special date. Participants imagined receiving a certificate to a local grocery store, redeemable either this week for $75 or in 5 months for a different (unspecified) amount. We manipulated whether the time was framed as delay (this week vs. 5 months later), as a non-special date (February 10th vs. July 5th), or as a special date (February 10th vs. July 4th). Main task was to indicate the matching value of the certificate in 5 months with the S75 certificate this week. Results replicated the date/delay asymmetry with higher matching values for the delay frame ($M_r=156.59$) than the non-special date frame ($M_r=119.41$). However, as expected, when the time was framed with a special date, the matching values decreased significantly ($M_r=94.00$) compared to the non-special date condition.

In conclusion, we show that providing meaning to the timing of consumption (with the use of special dates) has important implications for intertemporal preferences. Specifically, we suggest that special dates provide a context to imagine the outcome, increasing the concreteness in which it is imagined. Depending on the outcome the special dates help represent (sooner or later), consumers can be more or less impulsive in their preferences.
References

“Seeing the Forest When Entry is Unlikely: Probability as a Psychological Distance”
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Postulating that improbable events are psychologically distant and probable events are psychologically near, we draw on construal level theory (Trope & Liberman, 2003) to propose that decreasing an event’s probability leads individuals to represent the event by its central, abstract, general features (high-level construal) rather than by its peripheral, concrete, specific features (low-level construal). A series of studies looked at the relationship between probability and mental construal. For example, one study used a categorization task, in which participants grouped objects related to each of four scenarios into as many groups as they deemed appropriate. Participants were asked to imagine that they were either highly likely or highly unlikely to engage in the scenario. As expected, participants in the low likelihood condition created fewer, broader groups out of the objects than participants in the high likelihood condition.

The effect of probability on mental construal emerged on identification measures as well. For example, participants in one study received a flyer advertising a paid research assistant position described in broad, general terms (e.g. helping behavior research) as well as in specific, low-level terms (e.g. dropping a book in front of participants). Participants in the high probability condition were told that they would be almost certain to get the position if they signed up for the post, while participants in the low probability condition were told that they would be unlikely to get the position if they signed up for the post. Participants signed up for consideration, and then completed a separate, unrelated study. At that study’s conclusion, they were given a surprise “recall test” where they were asked to indicate the nature of the research assistantship that had been advertised earlier. Participants in the high probability condition were more likely to provide specific than general descriptions of the assistantship; this tendency was significantly lower for participants in the low probability condition.

Visual structure measures also revealed construal differences as a function of probability. Participants who came for a computerized study of visual perception were asked to first complete a paper and pencil practice version of the study task. During this “practice session” each participant completed two different tasks, one of which they believed they were likely to later complete in the actual experiment, and one of which they believed that they were unlikely to later complete in the actual experiment. The two tasks were the Snowy Pictures Test, which asks participants to name a picture

hidden beneath visual noise, and the Gestalt Completion Test, in which participants must name an object presented in fragments. While different, both tasks involve abstracting visual information, and thus performance on both should be greater when associated with low, as opposed to high, probability. Indeed, this was the case. Participants’ performance on each task was better when they believed that they were unlikely to later complete the task than when they believed that they were likely to later complete the task. Further, a follow-up study revealed the opposite pattern of results when the task content was replaced with a picture completion test in which participants had to name an element missing within a coherent whole (Wechsler, 1991). If abstracting information allows one to better close the gestalt in a picture, this should make it harder to recognize individual missing elements; in accord with this prediction, participants performed less well on the task when they believed they were unlikely (as opposed to likely) to later complete the task in the actual experiment. Thus, the effect of probability on performance is dependent upon the nature of the task: when abstraction facilitates performance, thinking of something as unlikely leads to better performance; when abstraction hinders performance, thinking of something as unlikely leads to diminished performance.

Taken together, these findings suggest that low likelihood events are indeed represented at a higher level of construal than are high likelihood events. Accordingly, decisions made about low likelihood events should be influenced by higher level aspects of those events. For instance, when an outcome has multiple features, we would expect that the lower the probability of receiving the outcome, the greater will be the weight of central, defining features of the outcome relative to weight of peripheral, non-essential features (Todorov et al., 2007). For example, in choosing a course, students would assign greater weight to the quality of the instructor (a high level feature) and less weight to the location of the course (a low level feature) when the likelihood that the course will be offered is low rather than high. Thus, a course given by a good instructor in an inconvenient location would be more attractive when the course is unlikely to be offered than when it is likely to be offered, whereas the reverse should hold for a course given by a mediocre instructor in a convenient location.

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