How Outside Options Influence Choice of Substitutes

Uzma Khan, Stanford University, USA

Consumers are often unable to attain desired products because of stockouts. In choosing substitutes, we find that consumers select options most similar to the unavailable outside option, relative to dissimilar but equivalently attractive ones. Ironically, however, consumers like their choice more and are more satisfied when they choose dissimilar substitutes.

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Options Outside the Frame in Forfeiture and Replacement Decisions

Chair: Liad Weiss, University of Wisconsin-Madison, USA
Stephen Spiller, UCLA, USA

Paper #1: Following-Through Opportunities: The Effects of Incidental versus Inherent Choices
Liad Weiss, University of Wisconsin-Madison, USA
Ran Kivetz, Columbia University, USA

Paper #2: “Be Careless with That!” Availability of Product Upgrades Increases Cavalier Behavior toward Possessions
Silvia Bellezza, Harvard Business School, USA
Joshua Ackerman, MIT Sloan School of Management, USA

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Uzma Khan, Stanford University, USA

Paper #4: Indecisive Consumers and Opportunity Cost Consideration
Marissa A. Sharif, UCLA, USA
Stephen A. Spiller, UCLA, USA

SESSION OVERVIEW

When making product decisions, consumers decide whether to buy, use, forfeit, or replace some focal option. These decisions may be influenced by options that lie outside the decision frame and about which no decision needs to be made. These outside options may be desired but unavailable, they may provide substitutes for options in the focal decision frame, or they may have previously been rejected. The present session explores the roles that such outside options play in forfeiture and replacement decisions.

Forfeiture and replacement decisions are an important subset of the choices consumers commonly make. Consumers must decide whether to forgo attending a desired concert in bad weather or give up a working phone to obtain an upgraded replacement. Previous research finds that how consumers process information about products is affected by whether that decision is an acquisition decision or a forfeiture or replacement decision (Dhar and Wertenbroch 2000). Such decisions are often driven by factors such as the chooser’s commitment to a focal option and the ease in which the chooser can replace that option (Fitzsimons 2000). Accordingly, whether people consider outside options, the type of outside options people consider, and the similarity of outside options to focal options are likely to affect forfeiture and replacement decisions.

Four papers look at different factors that prompt consumers to consider outside options and explore implications for forfeiture and replacement decisions. Weiss and Kivetz show that availability of an attractive outside option that was part of an incidental (rather than inherent) choice can make people less likely to forfeit a focal attractive option by increasing the perceived loss. Bellezza and Ackerman show that availability of an upgraded version of a product consumers own decreases consumers’ attachment to the product they own, and leads them to take greater risks with that product to justify its replacement. Khan examines out-of-stock situations, where consumers seek a substitute for a desired but unavailable option. Such substitution decisions increase consumer choice of, but decrease consumer satisfaction from, options that are more (vs. less) similar to the outside option. That pattern is driven by transference of both positive (desirability) and negative (failure to find) associations from the outside option to the similar focal one. Sharif and Spiller show that outside options are less likely to affect decisions about focal options for people high on lackadaisical indecisive tendencies (but neither perfectionist nor neurotic indecisive tendencies). This is because lackadaisical individuals seek less information about outside options and are less sensitive to their values even when they are known.

Together, the four papers help to contribute to research on outside option and on forfeiture and replacement decisions and will be of interest to researchers interested in decision processes. As a group, they raise questions about the ways that options outside the decision frame influence consumer decisions: When will outside options spontaneously be considered as part of a focal decision? Are there lingering consequences when those outside options are made focal? How does consideration of outside options affect consumer welfare?

Following-Through Opportunities: The Effects of Incidental versus Inherent Choices

EXTENDED ABSTRACT

Consumers often plan to pursue desirable opportunities yet fail to follow-through. Such lack of follow-through has negative implications for consumers, who forego opportunities for consumption and progress, as well as for marketers, who miss sales opportunities. The current research suggests that consumers are more likely to pursue an opportunity when it is chosen from a choice set that is construed as incidental rather than inherent. Consumers perceive choices as incidental when they arise from feasibility constraints that are exogenous to the considered opportunity set, as when a consumer receives a movie and a concert ticket but has to choose one because the events happen to coincide. Such incidental choices give rise to increased perceptions of loss and opportunity cost, thereby enhancing follow-through. By contrast, consumers perceive a choice as inherent if the set of available opportunities is intrinsically constrained, as when consumers earn a marketing incentive that requires choosing between different rewards (e.g., a movie or a concert ticket).

We suggest that when consumers make incidental choices, there is no "built-in" requirement to tradeoff one option for another, and thus, consumers are more likely to engage in counterfactual thinking about utilizing all of the options. Consequently, consumers feel that by failing to act on their chosen opportunity, all opportunities that were originally offered, their chosen option but also outside options they did not choose, are lost. Although this view of loss is inflated because the consumer could have actually only enjoyed one of the offered opportunities, this enhanced perception of loss (or opportunity cost) motivates consumers to pursue their chosen opportunity.

Accordingly, four studies demonstrate that consumers are more likely to follow-through with an opportunity when it was selected from an incidental choice-set, compared to when it was selected from an inherent choice-set. Participants in Study 1a imagined receiving a birthday gift that required them to choose between two desirable options. In the inherent choice condition, two of their friends jointly gave them a single gift voucher that provides a choice between two options: a fancy dinner versus an evening cruise. In the incidental choice condition, two of their friends jointly gave them a single gift voucher that provides a choice between two options: a fancy dinner versus an evening cruise. In the incidental choice condition, two of their friends jointly gave them a single gift voucher that provides a choice between two options: a fancy dinner versus an evening cruise. In the incidental choice condition, two of their friends jointly gave them a single gift voucher that provides a choice between two options: a fancy dinner versus an evening cruise. In the incidental choice condition, two of their friends jointly gave them a single gift voucher that provides a choice between two options: a fancy dinner versus an evening cruise. Participants then learned that the two events (dinner and cruise) took place at the same time on the Thursday following participants’ birthday. Participants then chose which event they plan to attend.
Subsequently, participants imagined that they were assigned to work on the same Thursday evening. Their boss offered to cover for them in return for 10 hours that they will devote to a tedious task in the subsequent weekend. Consistent with our prediction of greater follow-through with incidental compared to inherent choices, participants in the incidental choice condition where more likely accept their boss’ offer and following-through with their evening event ($p < .05$).

In Study 1b, following the same procedure, after choosing between dinner and cruise, participants imagined looking at the voucher(s) pondering how things could have evolved differently, and then listed three thoughts. Independent judges blind to the hypothesis coded thoughts for whether they represented desires to attend both events. Consistent with our predictions that the effect of incidental versus inherent choice on opportunity follow-through is related to counterfactual thoughts of using multiple choice options, participants who made the incidental choice were more likely to express desire to pursue both opportunities ($p < .1$).

In Study 2, following the same procedure, after choosing between dinner and cruise, participants indicated WTP for using both options and responded to a maximizing/satisficing scale (Schwartz et al. 2002). Consistent with our prediction that incidental versus inherent choice will increase WTP for using all (mutually exclusive) options, but only among “maximizers” (seek the best outcome, i.e., utilizing all of the presented options) the interaction between choice-type and maximization was significant ($p < .05$). A spotlight analysis revealed a positive effect of incidental choice on WTP among maximizers ($p < .05$), but not among satisficers.

Study 3 explored a different type of feasibility constraint, budget, rather than time, limitation. Participants were informed that they have 7200 reward points. In the inherent choice condition, the credit card company offered participants to redeem 5000 points in return for either a massage or dinner. In the incidental choice condition, each reward offer was received through a separate communication from a different company, one offering the massage in return for 5000 points and the second offering the dinner also in return for 5000 points. After participants chose which reward to redeem, participants learned that their points were close to expire, and as a dependent variable, participants were asked for their WTP for an additional month in which they can use the points. Higher WTP indicates a stronger desire to follow-through with utilizing the selected reward. Subsequently, participants responded to the maximizing/satisficing scale. Consistent with our predictions, the interaction between choice-type and maximization tendency was significant ($p < .05$). We found increased WTP in the incidental choice condition, in which the need to choose only one reward was driven by an external constraint (i.e., insufficient amount of points), than in the inherent choice condition, in which the need to choose was built-in to the offer among maximizers ($p < .05$), but not among satisficers.

Consumers are less likely to imagine obtaining all of the options in a choice-set when these options are unattractive as a bundle, such as when there is less variety among options and they are perceived as “more of the same” (Sagi and Friedland 2007). In Study 4, Study 1a’s design was repeated with variety among options (high: restaurant and cruise vs. low: two different restaurants) as a second factor. Because the high variety choice-set can better fit consumers’ preference heterogeneity, all participants were informed they chose the same restaurant option. Consistent with the prediction that a low variety among options would attenuate the positive effect of incidental choice on follow-through, there was a statistically significant interaction between choice-type and variety ($p < .05$). Follow-through was higher following incidental choice when variety was high ($p < .05$), but not when variety was low.

**“Be Careless with That!” Availability of Product Upgrades Increases Cavalier Behavior toward Possessions**

**EXTENDED ABSTRACT**

Product owners are often faced with the opportunity to purchase an enhanced product (e.g., a new laptop or phone), even though the device they currently own is still fully functional. We propose that individuals become less careful with owned products and less concerned about losing or damaging those products, when in the presence of attractive, though not yet attained, outside options. This careless behavior stems from a desire to justify the attainment of upgrades. Because consumers keep track of the costs and benefits of their durable purchases over time (Gourville and Soman 1998; Heath and Fennema 1996; Prelec and Loewenstein 1998; Thaler 1980), “accidentally” damaging a product allows them to write-off the residual value ante tempore and buy a new product without recording a loss or appearing wasteful.

We test our hypotheses through five studies that employ different types of upgrading manipulations (e.g., the physical presence of a better product, writing tasks, product images), investigate a wide array of consumer products (e.g., mugs, cell-phones), and examine different measures of carelessness (e.g., actual behavior, behavioral intentions). We also consider the moderating role of individual level differences in the motivation to upgrade and boundary conditions linked to the nature of the product. In particular, we find that carelessness in the presence of upgrade options is stronger for those who are particularly interested in the upgrade and is more likely to occur for products that individuals typically own one of (i.e., the newer product substitutes the current one), than for products that individuals typically own several of simultaneously (i.e., the newer product is owned in addition to the current one).

Using two conditions between-subjects designs, the first three studies test different outcomes of the overall effect: behavioral measures (study 1a), behavioral intentions (study 1b), and product perceptions (study 1c). In study 1a, we manipulated the physical availability of a preferred substitute. Participants (N. 92) were gifted with a mug and were either exposed to a better mug (upgrade condition) or not (no-upgrade condition). All participants then played the game Jenga, with the owned mug placed atop a tower of blocks. Participants removed individual blocks for payment but also attempted to prevent the tower of blocks topped by the mug from toppling down. We find that participants in the upgrade condition dropped the mug during the game in 61% of the cases, in contrast to only 37% in the no-upgrade condition ($p = .02$). Therefore, participants were more willing to endanger an owned product when presented with a preferred and attractive product option. In this study 1b, we recruited real laptop owners (N. 61) and examined the impact of imagining a newer laptop on willingness to take care of the currently owned device. As predicted, participants in the upgrade condition exhibited a lower willingness to take care of their current laptops than participants in the no-upgrade condition. In study 1c, we show that judgments about the extent to which a product “needs to be broken” prior to replacement are malleable. Cell phone owners (N. 60) imagined a new model of their phone about to be released (upgrade condition) or not (no-upgrade condition), and then assessed the amount of damage “needed” before replacement. We find that the replacement threshold was significantly lower for people who imagined an upgrade possibility than for those who did not. Thus, when the thought of a newer,
attractive option is prominent in participants’ minds, they are willing to lower the damage threshold for an owned product.

Study 2 (N. 272) examines the moderating role of motivation to upgrade using a 2 (upgrade) x 2 (physical product condition) x 2 (iPhone ownership) between-subjects design. The study manipulated upgrade condition by asking participants to imagine that they owned an iPhone4 (old model condition) or an iPhone5 (new model condition). In addition, the study manipulated the physical state of the product by showing the image of an iPhone with an intact (undamaged condition) or cracked (damaged condition) screen. For the damaged conditions, a graphic designer created the images of the two iPhones with the same exact crack on the screens. We find that participants for whom the product is relevant (i.e., real iPhone owners) are more likely to rate the substitution of the damaged device as more necessary and to perceive an equally broken product as more damaged when the phone is an old model (iPhone4), rather than a new one (iPhone5). In contrast, the manipulation did not elicit significant differences for non-iPhone owners. Thus, study 2 demonstrates that people are motivated to create reasons for upgrading and they judge a similarly ruined product as more damaged when a more attractive option is available.

Using a 3 (upgrade) x 2 (product type) between-subjects design, study 3 (N. 356) demonstrates the mediating role of need for justification by manipulating the extent to which the upgrading is framed as necessary (i.e., low need for justification) or not necessary (i.e., high need for justification). Moreover, study 3 investigates boundary conditions linked to the substitutability of products. We find that the effect of upgrade availability is more likely to occur for products that individuals typically own one of – so called “single” products (i.e., the new product substitutes for the current one) – than for products that individuals typically own several of simultaneously – so called “cumulative” products (i.e., the new product is owned in addition to the current one). Participants thinking about product upgrades reported lower willingness to take care of their belongings when imagining “single” products (a wallet or suitcase) rather than “cumulative” products (coat or shoes).

In conclusion, our work provides novel insights into the phenomenon of consumer carelessness toward owned products and demonstrates that consumers exhibit cavalier behavior toward owned products when in the presence of attractive outside options.

How Outside Options Influence Choice of Substitutes

EXTENDED ABSTRACT

Consumers’ choices and evaluations are not only affected by the alternatives present in a given choice set, but also by unavailable options (Farquhar et al. 1987; Fitzsimons 2000). A common instantiation of this problem arises in cases of product stockouts where consumers are unable to attain their desired target (Fitzsimons 2000). We refer to such desirable, out-of-stock items as outside options. An important question in such contexts is whether or not shoppers shift to substitute shopping and if so, which substitutes they are likely to purchase (Campo, Gijsbrechts, and Nisol 2003; Sloot, Verhoef, and Franses 2005; Breugelmans, Campo, and Gijsbrechts 2006). In the current research we undertake a complementary study of what substitutes consumers choose when their desired target is out-of-stock and how satisfied they are likely to be with their chosen option.

We demonstrate that presence of an outside option (i.e., when a desired item is out-of-stock) increases choice of substitutes that are most similar to the outside option even though it is the dissimilar substitutes that are better liked post-choice and drive greater satisfaction. We explain that consumers desire to acquire similar substitutes due to their close association with the outside options. However, the negative feelings associated with the failed attempt to obtain the outside option also carryover more to the close substitutes consequently decreasing their liking. This notion is consistent with research showing dissociability of “wanting” and “liking” elements of value (e.g., Winkielman and Bertridge 2003; Dai, Brendl, and Ariely 2010; Litt, Khan, and Shiv 2010). For example, Litt et al. (2010) showed that being thwarted from obtaining a desired outcome can increase wanting but decrease liking of that outcome. The current research extends these prior findings by examining demand and liking of substitutes rather than the outside option itself.

In Study 1, participants made a hypothetical choice between a Nikon (N) or a Canon (C) camera. Participants then imagined that a stockout prevented them from buying their chosen camera and chose a substitute camera from three available options: a Canon similar to the original Canon (C′), a Nikon similar to the original Nikon (N′), or an upgraded Canon similar to the original Canon but more expensive (C+). Consistent with our hypothesis that stockouts increase demand for the substitute most similar to the outside option, participants were more likely to choose the similar substitute regardless of whether they initially chose the Canon (62.32%) or the Nikon (70.18%), p < .01. Next, participants read a mixed customer review of their substitute camera, and then reported their liking of their chosen substitute in light of this new information. Despite relative choice-shares favoring the similar option, choosing a similar (versus dissimilar) substitute led to less positive attitudes towards the substitute for all participants (M_C−N′=5.44; M_C−C′=7.70; p<.001) (M_N−N′=6.05; M_N−C′=7.42; p=.01). Interestingly, even choosing the ostensibly better upgraded substitute (C+) led to more positive attitudes only among those who had originally picked a Nikon (choosers for whom trading up is akin to trading out; M_p−N′=6.05; M_p−C′=7.20, p=.01) but not those who originally chose a Canon (M_p−C′=5.44; M_p−C+=5.62, ns).

We explain that consumers’ choice and evaluation of substitutes are guided by their emotional reactions to the stockout which makes similar items more attractive by association with the outside option but at the same time reduces liking for them. If disjunctions between demand and liking of substitutes are indeed due to consumers’ emotional reactions to stockouts, then disjunctions between demand and liking should be greater for individuals who have stronger affective reactions. Study 2 investigates this hypothesis using real behavior. Participants completed a laborious task to earn e-points with which they could choose products (e.g., a DVD player or a GPS) that they would receive should they win a lottery. After choosing a product, all participants learned that their chosen product (P) was out of stock. Across four conditions, participants were offered a choice between two substitutes, which were either: (1) Both Similar: P′ and P+, (2) Both Dissimilar: Q and Q+, (3) Mixed-Similarity 1: P′ and Q+, or (4) Mixed-Similarity 2: Q and P+. After choosing a substitute, participants evaluated their liking of their chosen substitutes after experiencing a sample of the item (e.g., sample voice directions; a movie clip played from the DVD player). Participants next completed an affect intensity measure (Larsen and Diener 1987). Finally, participants were asked if they would like to keep their chosen substitute or exchange it for a gift card of equivalent value. Consistent with Study 1, participants in both the Mixed-Similarity conditions were more likely to choose a similar (vs. dissimilar) substitute (78.4% and 75.7%; p<.01). Despite relative choice-shares favoring the similar option, choosing a dissimilar substitute option led to greater liking in both the Mixed-Similarity 1 condition (M_p−P′=4.81; M_p−P+=5.97; p<.01) and the Mixed-Similarity 2 condition (M_p−Q=6.15; M_p−Q+=4.65; p<.01). Additional evidence suggesting that dissimilar substitutes are better liked than similar ones comes from participants’ choices at the

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end of the study – participants in the Both Similar condition were more likely to give away the substitute than participants in the Both Dissimilar condition (69.73% vs. 47.30%; p<.01). Similarly, participants who chose the similar substitute in both Mixed-Similarity conditions (79.31%, 66.07%, respectively) were more likely to give away the substitute than participants who chose the dissimilar substitute (50.00%, 33.33%, respectively; ps<.05). As predicted, individuals who chose dissimilar substitutes (M₀=4.20; M₁=4.37) had higher affect intensity than individuals who chose similar substitutes (M₀=3.40; M₁=3.39; ps<.01). Inconsistent with a selection-bias account (which would suggest that individuals who like substitutes less also tend to select similar substitutes), liking of the chosen substitute was lower when choosing between two similar options in the Both Similar condition (M=4.92) than two dissimilar options in the Both Dissimilar condition (M=5.71), p<.01.

Together, these studies demonstrate that outside options resulting from stockouts can increase demand for the most similar substitutes, while decreasing liking of, and satisfaction from, those very same similar options. The findings contribute to the under-researched area of substitute selection and have important implications for demand forecasting, inventory management, customer retention, and customer satisfaction.

Indecisive Consumers and Opportunity Cost Consideration

EXTENDED ABSTRACT

Prior research has revealed that consumers often neglect their opportunity costs (Frederick et al., 2009). However, when individuals do consider their opportunity costs, they are sensitive to the value of their outside options (Spiller, 2011). Tightwads, those high in propensity to plan, and those facing immediate resource constraints are more likely than others to consider their opportunity costs (Frederick et al., 2009; Spiller, 2011). Another important, but heretofore neglected individual difference that may be reflected in opportunity cost consideration is indecisiveness. Are indecisive consumers more likely to consider their outside options ad nauseam, unable to decide among their alternatives, or do they consider them to a lesser extent in an attempt to reduce the difficulty of choosing and simplify the decision-making process? We show that a specific dimension of indecisiveness, lackadaisicalness, is associated with lesser opportunity cost consideration and lower sensitivity to the value of outside options even when those outside options are made explicit and salient in the decision frame. We find that other dimensions of indecisiveness are unrelated with these behaviors.

Prior research has identified three types of indecisive individuals using the Decision Behaviors Inventory (DBI): 1) Neurotic, characterized by difficulty choosing when presented with a variety of different options; 2) Perfectionistic, characterized by excessive information-seeking before choosing; and 3) Lackadaisical, characterized by a lack of concern with advanced preparation (Barkley-Levenson and Fox, 2014). Although these indecisive individuals have been shown to take longer to make decisions, less is known about how or why these individuals make particular choices. This research aims to further this knowledge by exploring how one important component of decision-making relates to indecisiveness.

Study 1 examines the extent that individuals exhibiting different types of indecisiveness consider opportunity costs. In a “Daily Shopping Task,” 100 participants were asked to make a series of 16 choices to buy or not buy $5 gift cards over a series of four “weeks” (one opportunity to buy a $5 gift card per “day” at a cost of 2 cents, with 4 days per week, all in one sitting). Participants had the opportunity to view the gift cards being offered in the next three days before making their choice by clicking on black boxes representing these gift cards. Because participants had a limited weekly budget (2 cents), the gift cards available in the future were potential opportunity costs. The number of times participants looked ahead at future gift cards was our measure of opportunity cost consideration. After completing the task, participants completed the DBI. Looking ahead at future options was negatively associated with lackadaisical indecisiveness (p<.05), but neither neurotic nor perfectionist indecisiveness.

Study 2 examined how sensitive indecisive individuals are to the value of their outside options when they are highly salient. 100 participants completed a similar procedure as Study 1. However, participants were randomly assigned to a condition in which the next three gift cards were always displayed (Known) or never displayed (Unknown). Participants in the Known condition were more sensitive to the value of their upcoming options than were participants in the Unknown condition (p<.05). In other words, participants in the Known condition were less likely to buy the current option if their future options were very attractive (operationalized by aggregate choice share) than if they were unattractive, whereas those in the Unknown condition were not. More importantly, this interacted with lackadaisical indecisiveness (p<.05), but neither neurotic nor perfectionist indecisiveness. In the Known condition (but not the Unknown condition), sensitivity to the value of salient upcoming options decreased as lackadaisical indecisiveness increased.

Study 3 aimed to replicate the findings of Study 2 using a different paradigm and rule out the counter-explanation that lackadaisical indecisiveness is merely picking up a correlated construct. 300 participants read a scenario about a sale on their favorite DVD and decided whether to buy it or not (Frederick et al., 2009). Participants were randomly assigned to one of three conditions, in which the decision was framed as an “opportunity” (e.g., do you want to buy this DVD or not?), a “choice” (e.g., after considering what else you would buy with this money, do you want to buy this DVD or the other option you considered?), or a “mixed” condition (e.g., after considering what else you would buy with this money, do you want to buy this DVD or not?) (Jones et al., 1998). Participants generated an alternative use for their money (outside option) before their decision in the “choice” and “mixed” condition and after their decision in the “opportunity” condition. Participants reported their attitude towards the outside option and the DVD (each on three semantic-differential scales: good/bad, favorable/unfavorable, and satisfactory/unsatisfactory) and completed the DBI, Elaboration on Potential Outcome Scale (Nenkov, Inman, and Hulland, 2008), and Maximization Inventory (Turner et al., 2012). We found a lackadaisical x outside option evaluation interaction on purchase behavior (p<.01). Low lackadaisical individuals were sensitive to the evaluation of the alternative, such that their likelihood of buying the DVD decreased as their evaluation of the outside option increased, whereas high lackadaisical individuals were insensitive to the evaluation of the alternative. This pattern was unique to lackadaisical indecisiveness and was found with neither perfectionist nor neurotic indecisiveness. This effect held even when the EPO and Maximizing Inventory subscale were included in the model and was not significantly affected by how the decision was framed (opportunity, choice, or mixed).

Study 4 replicated these findings with the addition of the Propensity to Plan scale (short-term for time and money) (Lynch et al, 2010). We found the same interaction and corresponding simple effects from Study 3 (p<.06). Additionally, this effect still holds when the Propensity to Plan scales are included in the model.
This research contributes both to the literature on opportunity cost consideration and indecisiveness by 1) revealing systematic individual differences in opportunity cost consideration and in sensitivity to the value of outside options, and also by 2) furthering our understanding of the decision-making processes of lackadaisical indecisive individuals.

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