



**Columbia Business School Research Paper Series**

**“A Bird in the Hand or Two in the Bush: Advantageous  
Decision Making in the Context of Simultaneously versus  
Sequentially Presented Options.”**

**Sheena S. Iyengar**

**Cassie Mogilner**

**Baba Shiv**

A Bird in the Hand or Two in the Bush: Advantageous Decision Making in the Context of  
Simultaneously versus Sequentially Presented Options

CASSIE MOGILNER

BABA SHIV

SHEENA S. IYENGAR\*

\* Cassie Mogilner is a Marketing PhD candidate at Stanford University, Graduate School of Business, 518 Memorial Way, Stanford, CA, 94305; tel: (917) 434-3370; fax: (650) 725-7462; ([mogilner\\_cassie@gsb.stanford.edu](mailto:mogilner_cassie@gsb.stanford.edu)). Baba Shiv is an Associate Professor of Marketing at Stanford University, Graduate School of Business, 518 Memorial Way, Littlefield L383, Stanford, CA 94305; tel: (650) 725-8122; fax: (650) 725-6152 ([shiv\\_baba@gsb.stanford.edu](mailto:shiv_baba@gsb.stanford.edu)). Sheena Iyengar is a Professor of Management at Columbia University, Graduate School of Business, 3022 Broadway, 714 Uris Hall, New York, NY 10027; tel: (212) 854-8308; fax: (212) 316-9355 ([ss957@columbia.edu](mailto:ss957@columbia.edu)).

Can the ability to make advantageous decisions in the form of greater commitment to chosen options be affected by the manner in which the options are presented? To answer this question, we investigate decisions where options are presented simultaneously (all at once) versus sequentially (one at a time). Sequential decision tasks pose a dilemma between choosing the available option (“bird in hand”) or waiting for potentially better options that may or may not become available in the future (“birds in the bush”). Three field experiments show that sequential choosers’ optimism regarding future options negatively impacts their commitment to the options they choose and, thus, the advantageousness of their decisions.

“Hope is the worst of evils, for it prolongs the torments of man.”

—Attributed to Friedrich Nietzsche 1844-1900

Whether for a spouse, a job, a bottle of wine, or a nail polish, we are constantly confronted with choices in our daily lives, and in all of them we strive to decide advantageously. But what constitutes advantageous decisions, especially in situations where we face trade-off conflicts and where there are no obvious normative benchmarks to resolve these conflicts? The traditional perspective to this question focuses on the “input side” of the decision process. For example, theories of rational choice (e.g., Mas-Colell, Whinston, and Green 1995) and work on adaptive decision making (e.g., Bettman, Payne, and Johnson 1993) advocate that advantageous decisions are ones in which the decision maker has acquired as much information about the choice options as possible prior to making the decision.

An alternative perspective that focuses on the “output” rather than the “input side” of the decision process has begun to emerge in recent years. According to this perspective, which we adopt in this research, an advantageous decision is one where the decision maker feels satisfied (Carmon, Wertenbroch, and Zeelenberg 2003; Dijksterhuis and van Oden 2006) and is thus committed to his or her chosen option (Wilson et al. 1993). This alternative perspective seems to dovetail not only with the Latin root of the word “decision”—namely *caedere* (to cut), implying that a decision involves cutting oneself from the past and sticking to the chosen option—but also with marketers’ constant efforts to engender satisfaction with and commitment to their products and services, thereby generating greater loyalty, improved word-of-mouth, and fewer product returns.

The goal of this research is not to debate the merits of these differing perspectives but to extend the recent research that has started shedding light on factors that foster/hinder advantageous decision making as viewed from the “output” perspective, such as extent of cognitive elaboration (Dijksterhuis and van Oden 2006; Carmon, Wertenbroch, and Zeelenberg 2003), physical proximity and prior ownership (Carmon, Wertenbroch, and Zeelenberg 2003), number of choice options (Iyengar and Lepper 2001), and extended opportunities to update one’s choice (Gilbert and Ebert 2002). Our broad goal here is to add to this growing research stream by focusing on another pervasive factor that may impact advantageous decision making, namely the nature of option presentation—whether the options are presented simultaneously or sequentially.

### ***Simultaneous versus Sequential Option Presentation***

Consider the many decision tasks that we experience in our daily lives where the options are presented simultaneously. The defining characteristic of such tasks is that we have access to the full choice set at the same time, so our considerations when choosing are restricted to the currently available options. In contrast, consider decision tasks where options appear sequentially and where we must accept or reject the current option with little or no knowledge of the option that is likely to appear next in the sequence. Such tasks pervade important decision contexts such as hiring an employee, purchasing a home, choosing a life-partner, as well as more mundane contexts such as choosing a bottle of wine from a wine tasting. A defining characteristic of such sequential decisions<sup>1</sup> is that we must accept or reject the options as they appear, presenting the dilemma of evaluating the current option (“bird in the hand”) against

potential options that may become available in the future (“birds in the bush”). Compounding this dilemma is that once rejected, options may or may not be available for reconsideration in the future.

How might these characteristics of simultaneous and sequential decision tasks influence choosers during the decision process, and ultimately their commitment to the option they choose? Research on ambiguity aversion (Mishra, Nayakankuppam, and Shiv forthcoming) suggests that decision makers would give more consideration to the current less ambiguous option than to more ambiguous future options. However, sequential choice tasks may instead shift choosers’ attention to unknown future options. Moreover, because individuals tend to nurture unrealistic optimism regarding future outcomes (Kruger and Burrus 2004; Weinstein and Klein 1996), we propose that sequential choosers will feel overly optimistic about those future, yet unavailable, options. As a consequence, in contrast to simultaneous choosers who remain focused on the options currently available, sequential choosers may overestimate the likelihood of encountering a better option later, thereby reducing their commitment to the option currently under consideration.

As a preliminary examination of this proposition, 65 MBA students were presented with four wines either simultaneously or sequentially and were allowed to choose one bottle as a reward for participation. In the simultaneous condition, the four glasses of wine were presented at the same time (as in a wine flight), which allowed participants to sample across the wines as they pleased before making their choice. In the sequential condition, one wine was poured at a time (as in more typical wine tastings), and participants decided whether to choose or reject each option at the time of tasting, before moving on to the next option. While 83% of participants in the simultaneous condition chose wine #1, #2, or #3, only 54% in the sequential condition did, as

they were significantly more likely to delay choosing until the final wine #4,  $\chi^2 = 6.23, p = .01$ . More importantly, when participants were unexpectedly presented with a fifth wine to taste and were given the opportunity to switch from their previously chosen wine to the new option, sequential choosers were significantly more likely to switch than were simultaneous choosers (31% and 7%, respectively),  $\chi^2 = 6.19, p = .01$ .

Building on this preliminary experiment, we present two field experiments that replicate this finding that sequential choosers are less committed to their chosen options than simultaneous choosers—and that provide support for the optimism-related account and help rule out a potential alternative account. Specifically, experiment 1 examines whether the effect is a result of sequential choosers overestimating the value of possible unknown future options by manipulating sequential choosers' knowledge of those future options. Experiment 2 examines the role of choosers' chronic optimism/pessimism in moderating the effect. Experiment 2 also gives choosers the opportunity to switch to a future *unknown* option following the decision task, which allows us to disentangle the role of optimism from an alternative account wherein sequential choosers' reduced commitment stems from their feeling stuck with an objectively worse option in the original choice set.

### ***CONCEPTUAL BACKGROUND***

In this section, we will highlight two critical distinguishing characteristics of choices made from simultaneously versus sequentially presented options—differences that may give rise to reduced choice commitment among sequential choosers compared to simultaneous choosers.

These process-level characteristics include sequential and simultaneous choosers' differential awareness of the available choice options as well as differences in the role of optimism.

### ***Differential Awareness of the Available Choice Options***

It is now widely accepted that decision making is based more on comparative evaluations amongst options than on the absolute merits of the options (Brickman and Campbell 1971; Helson 1964; Kahneman and Tversky 1979; Shafir, Osherson, and Smith, 1993; Tversky and Kahneman 1991)—both during option selection (Nowlis and Simonson 1997) and while assessing the quality of one's selected option (Carmon, Wertenbroch and Zeelenberg 2003). That is, after comparing across the options in order to select one, choosers' ultimate satisfaction with and thus commitment to their chosen option depends on the perceived quality of that option compared to the available (and potentially the yet to be available) alternatives (Brehm 1956). This might explain why individuals' commitment to their romantic partners depends less on their partners' desirability than on the relative desirability of other potential partners (Gangé and Lydon 2001; Lydon et al. 1999; Johnson and Rusbult 1989; Rusbult, Martz, and Agnew 1998).

How do these comparative evaluations differ between sequentially versus simultaneously presented choice sets? As delineated earlier, the most obvious difference between the tasks of choosing from amongst sequentially versus simultaneously presented options is the chooser's level of awareness of the choice alternatives. Simultaneous choosers, for instance, have the set of options laid out before them, which allows them to compare the options with full knowledge of their relative desirability. Moreover, in line with the prominence effect, simultaneous choosers are more likely to focus on the fixed set of presented options and less on options that

are not in the current choice set (Fischer, Carmon, Ariely, and Zauberan 1999; Hsee and Leclerc 1998; Shiv and Huber 2000; Tversky and Kahneman 1973, 1974; Tversky, Sattah, and Slovic 1988). Thus, once a simultaneous chooser has resolved trade-off conflicts and made her choice, she can feel confident that her choice was advantageous, as it fared better compared to other available alternatives, which tend to be restricted to the choice set.

Sequential choosers, on the other hand, are presented with their options in sequence, so they are unsure of what options would or would not become available in the future when making their selection. This lower level of awareness of the alternative options ambiguates the post-choice comparison, thereby decreasing sequential choosers' confidence in and thus commitment to their chosen option. Further compounding the decision difficulty facing sequential choosers is their general (often unrealistic) optimism regarding the future, which we discuss next.

### ***Differences in the Role of Optimism***

At first blush, research on ambiguity aversion (Heath and Tversky 1991; Mishra et al. forthcoming) might suggest that in circumstances such as sequential decision tasks, the chooser should gain more satisfaction from and be more confident in choosing the known current option than choosing from amongst the unknown future options. This ought to be the case *unless* choosers expect future options (“the birds in the bush”) to be more desirable than the current option (“the bird in hand”). As it turns out, this is often the case—individuals have been shown across a wide range of situations to be unrealistically optimistic regarding the outcome of future events (Kruger and Burrus 2004; Weinstein and Klein 1996). Therefore, as sequential choosers focus on unknown future options, they are likely to expect those options to be particularly

desirable compared to the option currently in front of them. Stated differently, when conjuring up the alternatives in one's mind to serve as points of comparison, choosers will tend to sample from the positive side of the distribution of possible outcomes (Kahneman and Lovallo 1993, 2003). Accordingly, induced by sequential decision tasks, the unrealistic hope and optimism regarding potential future options will likely diminish choosers' confidence in their selection of the current option.

In sum, we propose that sequential decision tasks lead choosers to hope for better options to become available in the future, and it is this optimism that leaves sequential choosers unwilling to fully commit to what they currently have. Accordingly, we predict that the reduced commitment exhibited in the preliminary wine experiment amongst choosers who selected from sequentially presented options (compared to choosers who selected from simultaneously presented options) will be moderated by two factors. First, since factors such as hope and optimism arise because future options are unknown in sequential decisions, we predict that increasing sequential choosers' knowledge of future options will reduce unrealistic optimism toward such options and thereby increase their commitment to the current option. This, in turn, will reduce the differential effects of sequential versus simultaneous option presentation. Second, if hope and optimism for better future options is indeed what drives sequential choosers' reduced commitment, then choosers who have a chronic tendency towards optimism will exhibit a more pronounced lack of commitment to their choices than those who tend to be more pessimistic. We test these propositions in two different product categories across two field experiments, which we describe next.

### ***EXPERIMENT 1: THE MANICURE STUDY***

Experiment 1 was designed to test the proposition that compared to decisions involving simultaneously presented options, those involving sequentially presented options will engender reduced commitment to the current option as a result of individuals' tendency to focus on possible unknown future options. This proposition was tested by manipulating sequential choosers' knowledge of their future options—the logic being that if sequential choosers become aware of the options that are to come, they have to become more realistic and not view those future options in a positively biased fashion.

### ***Method***

*Participants.* Sixty women affiliated with a west coast university registered online to receive a free manicure from a nail salon in the nearby town. The average age of participants was 25 (range: 18-57), and 58% were Caucasian, 30% were Asian, and 12% were of other racial-ethnic backgrounds.

*Procedure.* Upon arriving to the salon, each participant was instructed to choose one of five nail polish colors for her manicure. The five color options were burgundy, red, pink, sheer pink, and sheer beige. The order of presentation of the colors was counterbalanced across subjects.

Participants were randomly assigned to one of three option presentation conditions: simultaneous, sequential unknown future, or sequential known future. Participants in the simultaneous condition were presented with all five options at the same time. From these, they could choose any color. Participants in the sequential unknown future condition were presented

with the five options one at a time and, similar to participants in the preliminary study's sequential condition, they were unable to see the subsequent color options. That is, these participants decided whether to choose or reject each option before being shown the next. To hold constant the amount of information available to choosers while receiving their choice, regardless of how early participants in this sequential unknown future condition made their choice, they all saw the five colors before receiving their manicures. Finally, in order to test whether the differential effect found between simultaneous and sequential choosers in the preliminary study was driven by sequential choosers' tendency to focus optimistically on the future options, participants in the sequential known future condition were subjected to the identical choice task as those in the sequential unknown future condition, except they could see their future color options while deciding whether to choose or reject each option.

Participants' choice commitment was measured after they received their manicures with their chosen colors. At that point, participants were told they would receive a free bottle of nail polish and that they could either take the nail polish color they had chosen earlier or switch to one of the other four colors they had previously viewed and considered. Lastly, participants completed a brief survey, rating on a seven-point scale (1 = not at all; 7 = very much) the extent to which they were "hoping for a better option" while choosing their manicure color.

## ***Results***

*Switching behavior.* As predicted, participants for whom options were presented sequentially and who had no knowledge of the upcoming options displayed less commitment to their initially chosen option than those for whom options were presented simultaneously. In the

sequential unknown future condition, 57% switched from their chosen manicure color when selecting their free bottle of nail polish; whereas only 17% in the simultaneous condition switched ( $\chi^2 = 6.71, p = .01$ ). This effect, however, was moderated by sequential choosers' knowledge of their future options with only 24% in the sequential known future condition switching from their original choice, compared to the 57% who switched in the sequential unknown future condition ( $\chi^2 = 4.84, p < .03$ ). The simultaneous and sequential known future conditions did not significantly differ from one another,  $\chi^2 = .31, NS$ .

*Optimism.* Choosers in the sequential unknown future condition reported greater hope for a better option ( $M = 4.95$ ) than did either choosers in the simultaneous condition ( $M = 3.11$ ),  $t(57) = -3.26, p < .01$ , or choosers in the sequential known future condition ( $M = 3.43$ ),  $t(57) = -2.81, p < .01$ . Choosers' feelings of hope in the simultaneous and sequential known future conditions did not differ from one another,  $t(57) = -.56, NS$ . These results suggest that the detrimental effect of sequential option presentation might be due to these choosers' tendency to focus more on potential rather than present options, nurturing unrealistic hope that better options will arise in the future.

## ***Discussion***

The results of experiment 1 were in line with our conceptualization and the results of the preliminary experiment. Reduced commitment to the originally chosen option was exhibited by choosers who selected from sequentially presented options compared to choosers who selected from simultaneously presented options. This reduced commitment occurred, however, only

when the options that would appear in the future remained unknown and not when they were known. This result is in line with our conceptualization that the reduced commitment to originally chosen options occurs for sequential (unknown future) choosers, because they tend to be optimistic about future options and in a sense sample from the “positive end of the distribution.” This conclusion is further bolstered by the measure of optimism that was collected in this experiment: sequential unknown-future choosers expressed greater hope for a better future option than sequential known and simultaneous choosers.

Note that in both the preliminary study and experiment 1, choosers in the sequential choice conditions were only allowed to choose the immediately presented option without knowing all the options in the sequence and without the possibility of going back to a previously rejected option. Regardless of which number option in the sequence they chose, all sequential choosers were exposed to the remaining options in the sequence. In the preliminary study, they were subsequently given the opportunity to switch from their originally chosen option to a newly presented option. In experiment 1, they were subsequently given the opportunity to switch from their originally chosen option to one of the other previously viewed and considered options. The nature of the tasks in both the previous experiments opens up the possibility of a viable alternative account for the findings. Specifically, rather than sequential choosers’ reduced commitment being driven by hope and optimism for a better future option, sequential choosers’ may have switched to a future known option (preliminary study) or to a previously considered option (experiment 1) merely because they felt stuck with an objectively worse option in the sequentially presented choice set. For example, a participant in experiment 1 who picked the third nail polish in the sequence could have then come across a better option thereafter, which caused her to switch at the end of the choice task from her originally chosen option. We

examine the viability of this alternative account in experiment 2 by modifying choosers' switching options.

### ***EXPERIMENT 2: THE WINE TASTING STUDY***

The purpose of experiment 2 was to provide additional support for our account for why sequentially presented options result in less advantageous decisions compared to simultaneously presented options. Experiment 2 measured individuals' tendencies to think optimistically versus pessimistically in order to show that the effect is not merely due to thinking about potential future options. Rather, it is specifically due to believing that those future options will be better than what is present. In other words, experiment 2 was designed to garner further support for the notion that hope for a better option in the future reduces sequential choosers' commitment to their choice from the present set of options.

A second goal of experiment 2 was to rule out the alternative account delineated earlier. To provide further support for our optimism-based account and to reduce the viability of the alternative account, the choice task in this study was restructured so that after choosers had made their choice from the original choice set (presented either sequentially or simultaneously), they were given the opportunity to switch from their original choice to one of the previously rejected options in the original choice set (as in experiment 1) or to a new albeit *unknown* future option. In other words, unlike the preliminary study wherein participants could taste the new wine option before deciding whether to switch from their originally chosen option, in experiment 2 participants could not taste the new wine, yet had to decide whether to switch to this "future" option. If sequentially presented choice sets do induce hope as proposed, we would expect

sequential choosers to be more likely to switch to the unknown future option than simultaneous choosers. Such a pattern of results would reduce the viability of the alternative account because participants would no longer switch merely because they feel that they got stuck with an objectively worse option.

### ***Method***

*Participants.* Fifty-nine members of a business school community (75% students and 25% staff) participated in a wine tasting study in exchange for a free bottle of their chosen wine. The sample was 60% female. The average age of participants was 31 (range: 21-65), and 62% of the participants were Caucasian, 21% were Asian, and 17% were of other racial-ethnic backgrounds.

*Procedure.* As part of a purportedly separate study, participants first completed a short survey that included the Life Orientation Test, an individual difference measure of optimism (Scheier, Carver, and Bridges 1994). The scale consisted of six items ( $\alpha = .74$ ) that instructed participants to rate on a seven-point scale (1 = strongly disagree; 7 = strongly agree) the extent to which they agreed with such statements as “I’m always optimistic about my future,” and “In uncertain times, I usually expect the best.” A median split on participants’ scores distinguished optimistic individuals from pessimistic ones, yielding a 2 (Option Presentation: Sequential vs. Simultaneous) X 2 (Optimism: High vs. Low) between-subjects design. (Note that our conclusions remain unchanged if we treat the measure of optimism as continuous rather than categorical.)

At the wine tasting table, the wine pourer announced that participants were going to taste four Italian red wines from which they could choose a bottle in exchange for participating. The choice set was created by a wine expert so that the four wines were comparable in quality. Additionally, the wine bottles were covered with paper bags to remove the influence of labels; the order in which the wines were presented was counterbalanced between participants; and the duration of each participant's wine tasting was set at 12 minutes.

Participants were randomly assigned to one of two option presentation conditions: sequential or simultaneous. In the sequential condition, participants were poured one glass of wine at a time. After tasting each wine, they were asked to choose or reject it, although they tasted all four wines regardless of which they chose. In the simultaneous condition, participants were poured all four wines at once and were allowed to taste all of the options before making their choice.

After tasting all four wines and choosing one, as the measure of choice commitment, participants were unexpectedly told that there was an additional wine that was not available for tasting. Participants were then given three choices: a) to stick with their chosen wine, b) to switch to one of the other three wines that they had previously tasted, or c) to switch to the unknown wine.

### ***Results and Discussion***

*Overall switching behavior.* As in the previous studies, sequentially presented options led to lower choice commitment than simultaneously presented options. Choosers in the sequential condition (63%) were not only significantly more likely to switch from their chosen option than were choosers in the simultaneous condition (24%),  $\chi^2 = 10.79, p = .001$ , but more

importantly, choosers in the sequential condition (53%) were also significantly more likely to switch to the unknown future option than were choosers in the simultaneous condition (24%),  $\chi^2 = 5.96, p < .05$ . These results reduce the viability of the alternative account. Namely, sequential choosers' decisions to switch to the unknown future option rather than to one of the other options that they had either previously rejected or that subsequently became available suggests that sequential choosers' lower commitment level was not merely due feelings of getting stuck with an objectively worse option. Instead, sequential choosers' reduced commitment seems to have been caused by their anticipating the unknown future option to be better.

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Insert Table 1 about here

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*Switching behavior among Optimists and Pessimists.* To further test whether the effect was driven by sequential choosers' hope for a better future option, optimistic and pessimistic choosers' likelihood of switching to the unknown option was examined (see Table 1). First, revealing the role of optimism in sequential choosers' decreased commitment to their chosen option, chronically optimistic sequential choosers were more likely to switch (67%) to the unknown future option than were chronically pessimistic sequential choosers (36%),  $\chi^2 = 3.33, p = .07$ . Incidentally, chronically optimistic simultaneous choosers were also more likely to switch to the unknown future option (44%) than chronically pessimistic simultaneous choosers (0%,  $\chi^2 = 12.44, p < .001$ ). This result is consistent with what one ought to expect with optimists, in general: when presented with the possibility of a new unknown option, one would expect

optimistic choosers to be optimistic about that option and, thus, be more likely to switch to it, irrespective of the method in which the original choice set was presented.

### ***GENERAL DISCUSSION***

The broad purpose of this research was to examine advantageous decision making in the form of one's commitment to his or her chosen option following a decision, a perspective that is gaining acceptance in the literature. More specifically, the goal was to add to a growing research stream that has begun to examine factors that foster/hinder advantageous decision making from this "output perspective" by focusing on a pervasive factor that may impact choosers' level of commitment, namely the nature of option presentation. The results of three field experiments indeed show that sequential versus simultaneous option presentation can influence how advantageously individuals choose. Whether selecting a nail polish color for a manicure or a bottle of Italian red from a wine tasting, we found that individuals choosing from options presented one at a time end up being less committed to their chosen option than do individuals choosing from a set of options laid out all at once. The moderating roles of the awareness of future options (experiment 1) and choosers' chronic tendencies to be optimistic about future possibilities (experiment 2) suggest that sequential choosers' reduced commitment is driven by their hope for a better option in the future. Indeed, it appears that presenting options sequentially rather than simultaneously shifts choosers' focus away from the immediately available options towards options that might become available in the future, which they presume to be more desirable. It is this unfounded optimism about the "birds in the bush," so to speak, that decreases choosers' commitment to that which they have in their hand.

This research thus reveals the detrimental impact of encountering options sequentially (vs. simultaneously) on chooser commitment, thereby contributing a pervasive context effect to extant literature on decision making (e.g., Bettman, Luce, and Payne 1998) and the growing work on hedonics (i.e., the study of what makes people happy; e.g., Kahneman et al. 2006; Loewenstein and Schkade 1999). It has become well-established that manipulations of the choice context, such as inclusion of extreme and compromise options in the choice set, can significantly influence decision making, even to the extent of reversing individuals' preferences (e.g., Dhar, Nowlis, and Sherman 2000; Simonson and Tversky 1992). Our findings contribute to this stream of research by demonstrating the impact of presenting the very same options one at a time versus all at once—a context effect that is particularly important given its pervasiveness in real-life, everyday purchasing decisions. Indeed, as consumers we commonly encounter simultaneous and sequential decisions—most frequently contrasted between decision domains because of market conditions (e.g., shopping for a new car vs. shopping for a used car), but sometimes within a single decision domain because of norms (e.g., choosing from a flight of wines vs. from the more typical sequential method of wine tasting). Whichever way our options are presented will determine how advantageously we choose, as measured by our level of commitment to that choice.

This research also demonstrates potentially unfavorable consequences of hope and optimism. Despite the decades of research documenting the positive effects of hope in people's lives, including academics, athletics, physical health, psychological adjustment, overall happiness, and psychotherapy (Averill, Catlin, and Kyum 1990; Lazarus 1999; Seligman 1975, 2003; Snyder 2000; Taylor et al. 2000), this research importantly demonstrates the negative impact of hope in the context of decision making. Additionally, although the role of hope and

optimism has been widely explored in psychology, it has remained under-examined by consumer researchers (for exceptions, see Mishra et al. forthcoming; MacInnis and De Mello 2005). The scarce marketing work that has identified optimism as a key construct has focused on the positive effects of advertisements and product claims that heighten consumers' perceived possibilities associated with products (e.g., Curry et al. 1997; Mogilner, Aaker, and Pennington 2008; Rossiter and Percy 1991). Our findings contribute to this work by showing that something less explicit than an advertising message and as subtle as the method of option presentation can also induce consumers' feelings of hope. More specifically, our research suggests the hope induced by sequential choice tasks can have a detrimental effect: it can make consumers less committed to the products they choose, and choosers in general unwilling to fully commit to what they have.

Low chooser commitment is particularly adverse when there are high emotional and financial transaction costs, as in the cases of divorce, moving, quitting, or firing an individual. It is disheartening that it is these very decisions in which options are typically presented sequentially. But even though this research might offer insight into why approximately one-third of marriages end in divorce, it also implies a decision strategy to increase chooser commitment. Perhaps choosers should view their options simultaneously, by defining their choice set and then selecting its best option, giving up fantasies of other possibilities—a strategy that is becoming increasingly feasible in the age of the internet.

This research has only scratched the surface of understanding the role of hope and optimism in decision making. Further research is needed, for instance, to explore such questions as what other factors induce choosers' hope, and what other effects does hope have on such variables as consumers' willingness to pay, their enjoyment of the choosing process, and their

experience of their chosen option? Such investigations may reveal instances in which hope plays a positive rather than a negative role for decision makers. Also, further research should examine when sequential choosers focus on potential future options versus forgone options. That is, what are the moderating determinants and the relative impacts of hope versus regret?

Finally, it remains unclear from our findings what stopping rule choosers will employ in sequential decisions. Our experimental paradigm limited the number of available options, in which case we found that sequential choosers tended to hold off in making their selection as long as possible. However, in cases where the number of options is large or indefinite, when will choosers give up hope for better future options and settle for choosing from the options currently available? And would an externally induced (vs. personally determined) decision to stop and make a choice impact choosers' commitment level? For instance, turning thirty very well might impact a single woman's optimism for finding true love, shifting her attention back towards the men currently in her life, thereby influencing her ultimate commitment to the one she chooses to marry.

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*TABLE 1*

## EXPERIMENT 2: OPTIMISM AND SWITCHING TO UNKNOWN FUTURE OPTIONS

	Sequential Condition	Simultaneous Condition
Overall	53%	24%
Pessimists	36%	0%
Optimists	67%	44%

***FOOTNOTE***

<sup>1</sup>. We use the term “sequential choice” to refer to the method of option presentation, wherein options in the choice set are presented one at a time, which we contrast with instances of simultaneous choice, wherein options are presented all at once. It should not be confused with the same term that has been used to identify other research streams in marketing: one that examines the effect of buying one item at a time immediately before each consumption occasion (vs. shopping for several items simultaneously that will be consumed over several consumption occasions in the future; Read and Loewenstein 1995; Simonson 1990); and the other which examines how one choice between conflicting goals can influence a subsequent choice between those same goals (Fishbach and Dhar 2005; Huber, Goldsmith, and Mogilner 2008; Khan and Dhar 2005).