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How do consumers manage goal conflicts before making a choice? This question was studied by examining emerging preferences in choices involving two products that were means to conflicting goals. These preference patterns revealed that an initially active goal, which had been set aside to reconcile a goal conflict, exerted greater than expected influence on the remainder of the choice process. This influence was manifest in a tendency for consumers to revert to the product aligned with the initially active goal upon seeing information that objectively favored neither product. The prevalence of the reversion (i.e., flip-flop) preference pattern suggests that activation of a set-aside goal escalates when it is set aside, much as if its pursuit had been impeded by an external force. In addition to revealing *goal reversion* in a variety of choice contexts, the studies in this article also find that goal reversion is moderated by goal conflict.

Consider the following situation:

Janet is on her way home. She is concerned about her health and so is thinking of stopping and picking up a chopped salad. As she pulls into the strip mall where the salad restaurant is located, she sees her favorite pizza restaurant and thinks she could use a tasty calzone at the end of a long week. She parks in front of the pizza restaurant, and heads for its door. But instead of entering, she walks past the pizza restaurant and into the salad restaurant.

This vignette depicts a common consumer dilemma—a choice between options that are means to different goals. Janet can choose the salad restaurant and pursue the goal to eat something healthy or choose the pizza place and pur-

sue the goal to eat something tasty. In such choices, many consumers experience goal conflict, which can lead to flipping and flopping between the options just as Janet did.

In the scenario above, we see Janet's goal conflict in her thinking and in her flip-flopping between the two options. Although it is common for consumers to struggle to make up their minds, it is usually not possible from observation alone to know whether the struggle stems from uncertainty regarding the value of the options or ambivalence driven by goal conflict. As a consequence, little is known about how consumers manage goal conflicts en route to making a choice.

In this article, we are interested in choices in which consumers are not committed to a particular goal but rather have two goals that are competing for activation. We use emerging preferences to infer how goal activation levels change during the choice process. This allows us to identify how consumers manage goal conflicts and what effect setting aside an initially pursued goal has on the remainder of the choice process.

Theories of motivation provide two possibilities for how consumers might manage predecisional goal conflicts. The first, *goal shielding*, is derived from the idea that when a goal is pursued, conflicting goals are shielded from cognitive resources until the pursued goal is achieved (Fishbach, Friedman, and Kruglanski 2003; Kruglanski et al. 2002; Shah, Friedman, and Kruglanski 2002; Shah and Kruglanski 2003). This account suggests that when a goal conflict is tentatively resolved during a choice process, the goal that is set aside will be shielded from activation energy until the choice process is complete. Under goal shielding, set-aside

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goals should become increasingly irrelevant as the choice process progresses. This means that a consumer who flips from a product that satisfies one goal to a product that satisfies a competing goal should not flop back (i.e., revert) to the initially preferred product because the activation of the goal aligned with the initially preferred option will decline as the choice process progresses. In Janet's case, this would mean that once she parked in front of the pizza restaurant (setting aside the goal to eat healthy), she would be unlikely to revert back to the salad restaurant (i.e., her pursuit of the eat tasty goal would shield the eat healthy goal).

The second possibility is *goal escalation*, which is based on the idea that impeded goals escalate in activation until a new opportunity to pursue them occurs (Atkinson and Birch 1970; Bargh et al. 2001; Chartrand et al. 2008; Sela and Shiv 2009; Shah 2005). When one goal is set aside to pursue a competing goal, the set-aside goal may see its activation increase in much the same manner as if it had been thwarted by an external force. Under goal escalation, a set-aside goal should see its activation level increase during the remainder of the choice process. If the set-aside goal's activation increases sufficiently, consumers will revert to it (*goal reversion*), causing a flop in preference back to the option that best satisfies the set-aside goal (*preference reversion*). In the case of Janet, goal escalation predicts that she would be likely to revert to the salad restaurant, just as she did.

Understanding how consumers manage predecisional goal conflicts should help marketers design better strategies for acquiring undecided consumers in the purchase cycle. This is important because these undecided consumers are the least likely to be loyal and the most likely to be susceptible to influence. If consumers shield set-aside goals during predecisional choice processes, then the key to getting selected lies in avoiding being set aside. However, if goal escalation determines how goal conflict is resolved, then getting set aside temporarily is of less consequence. Thus, understanding whether goal shielding or goal escalation dominates the predecisional choice process can help marketers coordinate elements of the choice setting, such as how to sequence attributes or alternatives.

In what follows, we develop the goal shielding and goal escalation accounts in more detail. We then present the results of several studies designed to determine which account occurs more often in predecisional consumer choice processes. We find consistent support for goal escalation, not goal shielding. The article concludes with a discussion of the theoretical and practical relevance of goal escalation during the construction of preferences.

THEORETICAL BACKGROUND

In choices between two products that are means to satisfying different and competing goals, consumers must manage the goal conflict to select one of the products. In such situations, it is inevitable that one goal will ultimately dictate choice. We are interested in understanding what happens to an initially pursued goal that is set aside by the consumer

to pursue a competing goal. One possibility for how consumers deal with the set-aside goal is that they shield it from activation energy so the currently pursued goal can operate without interference. Alternatively, the set-aside goal might see its activation increase much like any important goal that had its pursuit impeded. For insight into these two possibilities, we next consider the literatures on goal shielding and goal escalation.

Motivation Accounts of Predecisional Goal Conflict Management

The Goal Shielding Account. One view of goal activation is that active goals not only draw activation away from competing goals, but they proactively inhibit competing goals from influence by preventing activation energy from reaching the competing goals until the primary goal is achieved (for a recent review, see Forster, Liberman, and Friedman 2007). This view is represented in Goal Systems Theory (Kruglanski et al. 2002), which proposes that goals and the means to achieve those goals are interconnected in a motivational network via associative links. These links can be facilitative or inhibitory, with facilitative links primarily existing between goals and the means to achieve them and inhibitory links typically existing between competing goals and means that undermine a goal's achievement. When a goal becomes active, it spreads energy to related goals and the means to achieving the goal through its facilitative links, thereby increasing the probability that a means to achieving it will be considered and increasing the probability that related goals will be activated. Energy also spreads to the inhibitory links, which helps prevent competing goals from becoming active. The implication of this is that goals that conflict with an active goal are unlikely to influence behavior because they have been inhibited or "shielded" (Fishbach et al. 2003; Shah and Kruglanski 2003; Shah et al. 2002).

Goal shielding presumably occurs because people focus processing and memory resources to actively inhibit cognitive elements that conflict with the purpose at hand. For example, Swinney, Prather, and Love (2000) found that once a context is revealed (e.g., saving money or taking a walk), the ability to produce alternative meanings of a homonym (e.g., *bank* can describe a financial institution or the side of a river) is diminished relative to a baseline condition in which the context is not revealed. Likewise, Kruglanski et al. (2002) showed that priming a relevant goal reduces reaction times to corresponding means in a lexical decision task, while priming a nonrelevant goal does not reduce reaction times. Similarly, priming an alternative goal that is unrelated to or a substitute for a currently pursued focal goal reduces task performance on the focal task, while priming a related alternative goal enhances performance (Shah and Kruglanski 2002).

The Goal Escalation Account. The second account for what might happen when goals are in conflict and one goal is set aside during a choice process is captured by the goal

escalation account. This account stems from the idea that motivational states persist and activation increases in the face of interference or interruption (Atkinson and Birch 1970; Bargh et al. 2001; Chartrand et al. 2008), an idea that is related to reactance theory (Brehm 1966; Finkelstein and Fishbach 2010). This view of goal activation suggests that a goal that has been interfered with will strengthen in activation until achieved.

When two goals conflict, the pursuit of one goal implies that the other goal is thwarted. If this thwarting of the set-aside goal has the same effect as impeding the pursuit of a goal one is committed to pursuing, then the activation of the set-aside goal will follow a predictable pattern. Namely, its activation will drop at the moment it is set aside and then increase thereafter. This means that the goal that is pursued coming out of a predecisional goal conflict will often be supplanted later in the choice process because the set-aside goal's activation level will increase and eventually reach a sufficiently high level that it will reemerge as the dominant goal.

Testing for Goal Shielding versus Goal Escalation

Inferring Goal Activation from Emerging Preference Patterns. Much of the evidence to support goal shielding comes from studies that infer goal activation from choices. For example, research has found that people have a greater preference for goal-related objects when a need/goal is highly active (Read and van Leeuwen 1998). Likewise, hungry consumers (who have a goal to eat) buy more groceries than they planned to buy when they were not hungry (Gilbert, Gill, and Wilson 2002). As with goal shielding, much of the literature relevant to the escalation account uses final choices and preferences to infer goal activation. For example, Chartrand et al. (2008) found that priming a goal with a brand name influenced choice more if a delay was inserted between the goal prime and preference formation. Fitzsimons, Chartrand, and Fitzsimons (2008) found a similar increase in goal-relevant behavior when they used brand logos to prime goals (see also Laran, Janiszewski, and Cunha 2008).

When applied to a predecisional choice process in which there are two competing goals (e.g., eat tasty vs. eat healthy) and two options that differ in their ability to achieve the competing goals (e.g., a healthier restaurant and a restaurant with tastier food), goal shielding predicts that a consumer who tentatively pursues one goal will shield the other goal from future activation energy. This means that if a consumer switches goals during the choice process, the set-aside goal and any means to its achievement should become increasingly irrelevant as the choice process progresses. As a consequence, consumers should only revert to the product that is the best means of achieving the set-aside goal if that option is subsequently discovered to be substantially better on some new dimension. In contrast, goal escalation predicts that when a consumer switches preference during the choice process, the set-aside goal will increase in activation after the switch. This will cause many consumers to revert to the

option they were leaning to before the goal switch, even if new information does not objectively favor it.

The Role of Delay. Our proposition that preference patterns should be influenced by the motivational underpinnings of goal conflict management suggests that imposing a delay between the information that induces a preference flip and additional information should exacerbate whatever effect would occur without the delay. This is because goal shielding and goal escalation make different predictions about the ability of the set-aside goal to access activation energy after the flip. Shielding predicts that the set-aside goal will be shielded from new activation energy. The longer the shielding period, the more this goal's activation level should decay and the less likely consumers should be to revert to it. In other words, under shielding, a delay should have much the same effect on activation of the shielded goal as it would have on a semantic concept (Higgins, Bargh, and Lombardi 1985), not because of natural decay over time but rather because shielding prevents regeneration of the goal's activation level.

In contrast, the goal escalation account predicts that a goal that is switched from will see its activation increase during the set-aside period. Chartrand et al. (2008) refer to this as the temporal escalation criterion, and they suggest that for relatively short delays, goal escalation increases as the delay lengthens. In the current context, this means that a delay should increase the likelihood of goal reversion.

In sum, the two accounts make different predictions about how a delay will influence activation of the set-aside goal. The shielding account predicts its activation will drop, resulting in lower preference reversion rates. In contrast, goal escalation predicts that a delay will cause activation of the set-aside goal to increase, resulting in higher preference reversion rates.

Goal Conflict. In the current work, we examine choices between unfamiliar options, focusing specifically on the decision process before selection. Such choices are characterized by initial conflict regarding which option is better, conflict that is gradually replaced throughout the choice process by a preference for one of the options. Thus, at the outset of a choice between two novel options, all consumers are the same in that they experience conflict over which option to choose. However, at the outset of such a choice, consumers differ in the extent to which they are conflicted over the two goals that they will subsequently discover are differentially satisfied by the two options. This is important because prior research has established that consumers who experience goal conflict are most likely to entertain competing goals (Fishbach et al. 2003; Kruglanski et al. 2002; Trope and Fishbach 2000) and so are more likely to consider both options as viable (Ratneshwar, Pechmann, and Shocker 1996). This suggests that goal reversion should be most common among those who experience the most conflict between the two goals. In other words, when there is little goal conflict, we should see little flipping and flopping in predecisional preference patterns. This means that goal re-

version should be most prevalent either (a) among those consumers who experience chronic conflict between the goals or (b) in situations in which consumers are not compelled by the setting to commit to either goal.

It is worth noting that unlike a delay, goal conflict does not help differentiate between the goal shielding and goal escalation accounts. Instead, it is proposed as a moderator that will enrich our understanding of when consumers are more and less likely to exhibit goal reversion.

Research Overview. The studies below investigate how consumers manage goal conflict during the predecisional phase of a choice process. Our focus is on what happens to a goal that is tentatively set aside during that choice process. If goal shielding occurs, the set-aside goal should have little impact on the rest of the decision. In contrast, if goal escalation occurs, the set-aside goal should see its activation escalate, allowing it to exert influence on the rest of the choice process (i.e., goal reversion should occur).

To test for goal shielding and goal escalation, we examine preference patterns for decisions involving two options that are means to pursuing two competing goals. This method is consistent with others that have inferred goal activation from revealed preferences (e.g., Brendl, Markman, and Messner 2003; Fishbach, Dhar, and Zhang 2006; Markman and Brendl 2000), only it uses emerging preferences to infer goal activation levels during the choice process. If goal shielding dominates during the set-aside period, we should observe little reversion back to the initially preferred option (i.e., little flip-flopping). If goal escalation dominates, we should observe substantial preference reversion back to the initially preferred option (i.e., a substantial amount of flip-flopping).

The studies below are organized as follows. The first study and several follow-up studies suggest that goal reversion is common in predecisional choice processes. The second study tests for an exacerbating impact of a delay on goal reversion. Studies 3 and 4 seek to understand the limits of goal reversion by examining goal conflict as a moderator. Since the first study introduces the methodology that will be used in most of the other studies, it is necessarily longer and more detailed than that of the studies that follow it.

STUDY 1: ESCALATION VERSUS SHIELDING

Method

Overview. This study examined predecisional preference patterns for a choice between two restaurants that differed in their ability to satisfy the goals to eat healthy and eat tasty. Information about the restaurants was presented one attribute at a time, so that each participant's emerging preference pattern could be captured. To capture these patterns, we used the Sequential Evolution of Preference method (Mealy and Russo 2004), which required that participants indicate which restaurant was leading after each attribute in response to the following question: "Think about this de-

cision process as a horse race, and the two restaurants as horses in the race. Imagine that the race is already in progress. Which restaurant is in the lead at the current time?"

Participants and Design. Participants were 122 students from Boston College. Each participant was randomly assigned to one of three conditions: probabilistically real choice, hypothetical choice, or no-choice control. Those in the probabilistically real choice condition were told that the names of two participants would be randomly drawn (with a 1-in-25 chance), with each receiving a gift certificate for dinner in the amount of \$50 to whichever restaurant s/he selected in the upcoming restaurant choice. These instructions were not included in the hypothetical choice or the no-choice control conditions, although all participants were told in the consent form that each participant would have a 1-in-25 chance of receiving a \$50 gift certificate as a thank you for participating. Thus, all participants knew they had a chance to receive a gift certificate before beginning the study, but only those in the probabilistically real choice condition expected that the gift certificate would be to the restaurant they preferred in the restaurant choice. We included probabilistically real and hypothetical choice conditions to determine whether preference patterns were influenced by the consequence of the choice.

Procedure. The choice stimuli consisted of four attributes (menu, desserts, healthiness of the food, and ambience) describing two restaurants that participants had not heard of before this study (Absolutely Delicious and Spa Café). The first two attributes revealed that Absolutely Delicious was a better means to satisfy the goal to eat tasty food than was Spa Café. For example, the comments-on-the-menu attribute read as follows:

Posted by Pumalicious

The head chef at Spa Café is often quoted as saying "I serve what I enjoy eating." And if my experience is any indication, the Chef likes good food. Though somewhat limited in its offerings, the menu was very balanced and the dishes my guest and I had were well presented and yummy.

Posted by FunRobby

The motto at Absolutely Delicious is "We offer absolutely delicious food." I couldn't agree more. Everything we had was sensational. The food and wine pairings were perfect. The portions were substantial, yet there was nothing left on any plate at the table. Really, really delicious.

After reading the first two attributes, most participants should favor the tastier restaurant (Absolutely Delicious).

The third attribute was a review suggesting that the food at Spa Café was healthier. This attribute appears below:

Posted by Crain

Spa Café is one of those rarest of restaurants that focuses on healthy cuisine without sacrificing taste. The secret is that nothing on the menu is deep fried. All dinners come with a choice of healthy sides. The head chef's use of the freshest ingredients and his focus on preparing dishes in a way that

preserves flavor and nutritional benefits has helped propel Spa Café to the forefront of creative cooking.

Posted by Heffel

Among the most decadent restaurants in the area, Absolutely Delicious certainly believes in erring on the side of flavor. There are some healthy options on the menu, but make no mistake, to appreciate what Absolutely Delicious has to offer, one should not go there in search of a healthy meal.

After reading the third attribute, participants were aware of which restaurant was the best means to each goal. Moreover, at this point all participants should have been aware that both goals could not be fully achieved in the choice. The final attribute, ambience, was not related to either goal and favored neither restaurant.

If participants deal with goal conflict by trading off the goals against each other, the fourth attribute should influence preference in line with its true diagnosticity. However, if shielding occurs, participants who resolve the conflict by switching to Spa Café after the third attribute should shield the eat tasty goal and retain Spa Café for the remainder of the choice process. In terms of preference patterns, this means that we should see a lot of participants exhibiting the flip-no-flop preference pattern (tasty-healthy-healthy, or THH) on attributes 2–4. Alternatively, if goal escalation occurs, we should see both flipping and flopping. That is, participants who resolve the conflict by switching to Spa Café after the third attribute should switch back to their initially preferred restaurant (Absolutely Delicious) to pursue the escalating eat tasty goal. This means we should see a lot of participants exhibiting the flip-flop preference pattern (tasty-healthy-tasty, or THT) on attributes 2–4.

No-Choice Control Condition. Since the information in the final attribute was complex and real, participants in the choice conditions should have differed in how they evaluated it. Therefore, it was not sufficient to examine the prevalence of each preference pattern itself. Instead the incidence of each preference pattern was compared to a baseline that was calculated from attribute evaluations that were obtained outside of a choice process. To accomplish this, we used a no-choice control condition in which participants evaluated all four attributes independently (i.e., not within a choice context and by using unmatched names across options—see Russo, Meloy, and Husted-Medvec 1998) to determine their true diagnosticity. Participants evaluated each attribute on a 9-point relative preference scale that was anchored on opposite ends by the names of the two restaurants. After evaluating all four attributes, control participants reported how important each attribute would be to them in making a choice between two restaurants. They did so by allocating 100 points across the four attributes.

Using these two pieces of information (attribute evaluation and importance), we constructed a weighted contribution to overall preference for each attribute. By combining these contributions in the order in which choice participants saw the attributes, we were able to infer which restaurant should lead for each no-choice control participant at each

point in the process, assuming the participant had evaluated the attributes during the choice process without the influence of shielding, escalation, or predecisional distortion.

For example, multiplying a control participant's importance weights for the first two attributes by their evaluations of those attributes and dividing by the sum of the weights for the first two attributes produces a weighted average evaluation of the first two attributes for this participant. If this average was lower than five (i.e., the midpoint of the 9-point evaluation scale that was anchored at the low and high ends by Spa Café and Absolutely Delicious, respectively), we predicted this participant would prefer the Spa Café after the first two attributes. If this average was higher than five, we predicted the participant would prefer Absolutely Delicious after the first two attributes. By computing similar measures for the first three and for all four attributes, we can infer a preference pattern for each control participant. By aggregating over all control participants, we obtain benchmark proportions for each preference pattern to which we compare the observed incidence of each preference pattern from those in the choice conditions.

Goal Alignment Pretest. To ensure that each restaurant was seen as the means to the goal it had been designated for, we had 194 pretest participants read the four restaurant attributes and then identify the restaurant that they believed had healthier food and the restaurant that they believed had tastier food. As expected, 91.8% believed Spa Café had healthier food, and 84.0% believed Absolutely Delicious had tastier food.

Results

The proportion of participants in the two choice conditions who exhibited each emerging preference pattern is shown in the two "Observed" columns of table 1. Beginning with the leader after the second attribute, there are eight possible emerging preference patterns. The preference patterns of most interest for present purposes are THT and THH for the final three attributes of the choice process. If activation of the eat tasty goal escalated for those participants who had set it aside coming out of attribute 3 (when the eat healthy goal is likely to have been pursued), then the observed proportion of participants who exhibited the THT pattern should exceed the expected proportion for this pattern. Alternatively, if the eat tasty goal is shielded as a result of the flip, we should see a greater than expected incidence of the THH pattern.

We began by comparing the incidence of the observed THT pattern for the probabilistically real choice (.2308) and hypothetical choice (.2059) conditions and found no difference in incidence ($\chi^2(1) = 0.080$, $p = .777$). However, each of these proportions was reliably greater than expected when compared to the proportions inferred from the no-choice control condition (.0000; real vs. expected: $\chi^2(1) = 6.398$, $p = .011$; hypothetical vs. expected: $\chi^2(1) = 5.398$, $p = .020$). Taken together, these data provide evidence of

TABLE 1
EMERGING PREFERENCE PATTERNS FOR STUDY 1 (RESTAURANT CHOICE)

Emerging preference pattern	Probability of pattern			Test of (obs _{real&hypothetical} − exp)
	Observed		Expected (no choice)	
	Probabilistically real choice	Hypothetical choice		
TTT	.3846	.3235	.6522	$\chi^2(1) = 6.387, p = .011$
THT (goal escalation)	.2308	.2059	.0000	$\chi^2(1) = 6.236, p = .013$
TTH	.0462	.0000	.0000	$\chi^2(1) = .715, p = .398$
THH (goal shielding)	.1846	.2941 ^a	.1739	$\chi^2(1) = .260, p = .610$
HHH	.0923	.1176	.1739	$\chi^2(1) = .976, p = .323$
HTH	.0154	.0000	.0000	$\chi^2(1) = .234, p = .629$
HHT	.0462	.0000	.0000	$\chi^2(1) = .715, p = .398$
HTT	.0000	.0588 ^a	.0000	$\chi^2(1) = .707, p = .400$

NOTE.—H = healthy; T = tasty; obs = observed; exp = expected.

^aObserved hypothetical differed from observed real ($p < .05$).

goal escalation and suggest that it is not driven by involvement with the choice task.

Next, we examined the THH pattern for evidence of goal shielding. The only evidence of goal shielding in this study is in the hypothetical choice condition, where incidence of the THH pattern (.2941) was directionally but not reliably higher than expected (.1739; $\chi^2(1) = 1.070, p = .301$). In other words, there was insufficient evidence to conclude that goal shielding occurred. In fact, the only other pattern whose observed incidence differed from the expected incidence was the TTT pattern, which was observed less often than expected ($\chi^2(1) = 6.387, p = .011$).

Discussion and Follow-Up Studies

This study found that the THT (i.e., flip-flop) pattern occurred at rates greater than expected if goal escalation was not occurring. This is consistent with goal escalation, not goal shielding. To determine whether this result generalizes to other goals and other choice settings, we ran three follow-up studies. The first involved a choice between two cars, one with better performance and one that was safer (i.e., a conflict between a performance goal and a safety goal). The second involved a choice between two pairs of shoes, one that was more stylish and the other that was more comfortable (i.e., a conflict between a style goal and a comfort goal). The third follow-up study involved a choice between the two restaurants in study 1, only with a counterbalancing of which goal was initially activated.

Performance versus Safety. Participants were 104 undergraduate students at Pennsylvania State University who were compensated with course extra credit for completing this and other unrelated studies. Each participant was randomly assigned to either the choice or the no-choice control condition. The stimuli for the choice and the no-choice control conditions were structured similarly to study 1. In the choice condition, the first two attributes (performance and transmission) indicated that one of the cars had better performance features. The third attribute (safety) revealed that

the other car, although lower on performance, was safer. The last attribute (colors) was irrelevant to either the safety or the performance goals. Thus, the flip-flop preference pattern is represented by PSP (performance-safety-performance) while the goal shielding pattern is represented by PSS (performance-safety-safety). Data collection for these two conditions was identical to the procedure used in the study above.

As table 2 shows, the preference patterns in this study were consistent with the goal escalation account. Specifically, the PSP pattern occurred more often in the choice condition (.1824) than expected (.0805; $\chi^2(1) = 4.604, p = .032$), whereas incidence of the PSS pattern was actually lower (not higher) in the choice condition (.1689) than expected (.4023; $\chi^2(1) = 15.696, p = .006$).

Style versus Comfort. One hundred and three undergraduate students at Pennsylvania State University participated in exchange for course extra credit. The procedure in this study was similar to that used in study 1. The style goal was activated first by presenting information about the stylishness of the shoes (attributes 1 and 2) before information about the comfort of the shoes (attribute 3). The final attribute, background information on the two shoe companies, was irrelevant to either stylishness or comfort. Thus, the preference pattern that is reflective of goal escalation is the SCS (style-comfort-style) pattern. The preference pattern reflective of goal shielding is SCC (style-comfort-comfort).

As is evident in table 3, incidence of the SCS pattern (.1296) was higher than we would have expected if goal escalation had not been operating (.0000; $\chi^2(1) = 6.815, p = .009$). In other words, more participants temporarily left and then reverted to the style goal than would be expected if the style goal did not increase in activation when participants switched to pursue the comfort goal. However, unlike the two studies above, there was some evidence of goal shielding in this study. Namely, the SCC pattern occurred more often in the choice condition (.3889) than predicted by the no-choice control condition (.1837; $\chi^2(1) = 5.241, p = .022$).

TABLE 2
EMERGING PREFERENCE PATTERNS FOR CAR CHOICE FOLLOW-UP TO STUDY 1

Emerging preference pattern	Probability of pattern		Test of (obs = exp)
	Observed (choice condition)	Expected (no-choice condition)	
PPP	.5811	.3793	$\chi^2(1) = 8.924, p = .003$
PSP (goal escalation)	.1824	.0805	$\chi^2(1) = 4.604, p = .032$
PPS	.0608	.0115	$\chi^2(1) = 3.271, p = .071$
PSS (goal shielding)	.1689	.4023	$\chi^2(1) = 15.696, p = .006^a$
SSS	.0068	.1264	$\chi^2(1) = 16.196, p < .001$
SPS	.0000	.0000	$\chi^2(1) = .0, p = 1.0$
SSP	.0000	.0000	$\chi^2(1) = .0, p = 1.0$
SPP	.0000	.0000	$\chi^2(1) = .0, p = 1.0$

NOTE.—P = performance; S = safety; obs = observed; exp = expected.

^aSignificant in the wrong direction for evidence of goal shielding.

TABLE 3
EMERGING PREFERENCE PATTERNS FOR SHOE CHOICE FOLLOW-UP TO STUDY 1

Emerging preference pattern	Probability of pattern		Test of (obs = exp)
	Observed (choice condition)	Expected (no-choice condition)	
SSS	.1852	.4898	$\chi^2(1) = 10.779, p < .001$
SCS (goal escalation)	.1296	.0000	$\chi^2(1) = 6.815, p = .009$
SSC	.0741	.0204	$\chi^2(1) = 1.602, p = .206$
SCC (goal shielding)	.3889	.1837	$\chi^2(1) = 5.241, p = .022$
CCC	.1667	.3061	$\chi^2(1) = 2.796, p = .095$
CSC	.0000	.0000	$\chi^2(1) = .0, p = 1.0$
CCS	.0370	.0000	$\chi^2(1) = 1.851, p = .826$
CSS	.0185	.0000	$\chi^2(1) = .916, p = .661$

NOTE.—S = style; C = comfort; obs = observed; exp = expected.

The data thus far indicate that goal reversion is robust. Moreover, the increased incidence of the flip-flop preference pattern does not seem to draw consistently from any other pattern. Therefore, to simplify presentation of the data going forward, we will focus only on incidence of the goal escalation and goal shielding patterns.

Manipulating the Initially Active Goal. All of the studies above were designed to initially activate the more hedonic of the two goals (taste, performance, style) and to establish the option that was a means for satisfying this goal as the initial leader. This raises the issue of whether goal escalation will occur when the initially activated goal is the less hedonic of the two goals. To examine this issue, this follow-up study used a 2 (initial goal: taste vs. health) $\times$ 2 (experimental condition: choice vs. no-choice control) between-subjects design.

In the tasty-first condition, the stimulus packet was patterned after the one used in study 1—the first two attributes (menu and desserts) favored one of the restaurants, and the third attribute (healthiness of the food) favored the second restaurant. In the healthy-first condition, the first and second attributes (freshness and ingredients) favored the second restaurant, and the third attribute (food) favored the other. In order to hold the total information content constant across

the conditions, the attributes were parsed or recombined such that the food attribute was in fact created by combining the menu and desserts attributes; the healthiness of the food attribute was composed of freshness and ingredients. In both the tasty-first and the healthy-first conditions, the fourth attribute was the chef's background, an attribute designed and pretested to be neutral, uncorrelated with the other attributes, and unrelated to either goal.

Participants ($N = 232$) from Pennsylvania State University who received extra course credit for participation were randomly assigned to one of the four conditions (tasty-first, healthy-first, tasty-first control, healthy-first control). The procedures in the choice and no-choice control conditions were the same as those used in the studies above.

The proportion of participants in the tasty-first condition who exhibited the THT pattern exceeded normative expectations (observed = .3333, expected = .0000; $\chi^2(1) = 17.551, p = .0001$). Likewise, the proportion of participants in the healthy-first condition who exhibited the HTH pattern exceeded expectations (observed = .1486, expected = .0278; $\chi^2(1) = 3.641, p = .056$). Given that these two flip-flop patterns had nearly identical expected frequencies, we were able to compare them. Doing so revealed that reversion to the initial preferred restaurant was more common in the

tasty-first than the healthy-first condition ($\chi^2(1) = 7.128$, $p = .008$). Thus, even though goal reversion was robust for both the more and the less hedonic goal, goal reversion was slightly stronger for the more hedonic of the two goals.

As for goal shielding, there was no evidence of it in the preference patterns, regardless of which goal was initially active. Specifically, incidence of the THH pattern for those in the tasty-first condition did not differ across observed and expected conditions (observed = .2346, expected = .2683; $\chi^2(1) = .167$, $p = .683$). Likewise, incidence of the HTT pattern in the healthy-first condition (.2838) did not exceed expectations (.3333; $\chi^2(1) = .283$, $p = .595$). Thus, there was no evidence of goal shielding in this follow-up.

Summary of Results

The data from the studies above are summarized in table 4. This table presents the difference in incidence (observed minus expected) for the goal escalation and the goal shielding preference patterns for all of the studies above. This table reveals consistent support for the goal escalation account, as the preference reversion (i.e., flip-flop) pattern regularly occurred at rates higher than predicted by the motivation-free weighted added model. This was true in real and hypothetical choices, across a variety of choice domains and for a variety of goals (eat tasty, eat healthy, seek performance, seek stylishness). This evidence is consistent with the idea that the activation of a set-aside goal escalates until it can reemerge later in the choice process. In only one of the studies above was there significant evidence of goal shielding, and when considered jointly (i.e., when the incidences are averaged across studies), there is no support for the goal shielding account.

If the prevalence of the goal reversion pattern (i.e., the flip-flop pattern) in study 1 is caused by goal escalation, then the addition of a delay should increase the prevalence of this pattern. Specifically, a delay between the flip and the opportunity to flop should provide a greater opportunity for the activation of the set-aside goal to increase. In contrast, if goal shielding is present, but as yet unobserved for an unknown reason, then adding a delay should cause the currently pursued goal's activation level to increase, yielding

a lower incidence of goal reversion. We examine this in study 2.

STUDY 2: GOAL REVERSION UNDER A DELAY

Method

Participants were 84 undergraduate students from Pennsylvania State University who received course extra credit for participating in the study. The choice stimuli and the procedures were identical to those used in study 1, with two exceptions. First, no control condition was included as we were interested in the comparison between the delay and no-delay conditions. Second, before reading the fourth attribute, half of the participants encountered a 2-minute delay before reporting their final choice.

Results and Discussion

Incidence of the THT pattern in the delay condition (.3750) was higher than in the no-delay (i.e., standard) condition (.1820; $\chi^2(1) = 3.93$, $p = .047$). In other words, participants who experienced a 2-minute delay between the third and the fourth attributes were more likely to exhibit the flip-flop pattern. In contrast, the delay had no impact on the goal shielding (THH) preference pattern. Specifically, incidence of the THH preference did not differ between the no-delay condition (.2950) and the delay condition (.2000; $\chi^2(1) = 1.018$, $p = .311$).

These data are consistent with goal escalation and the temporal escalation criteria—the longer the set-aside goal was interfered with, the more its activation increased and the greater its consequent impact on choice. Note that there was also time for the goal to escalate in the no-delay condition since our design requires participants to read and process the final attribute. However, the current study shows that if a delay is added to this attribute rumination time, activation of the set-aside goal escalates, and preference reversion becomes more common, consistent with the hypothesized process.

TABLE 4
SUMMARY OF KEY PREFERENCE PATTERNS FOR STUDY 1 AND FOLLOW-UP STUDIES

Study (goal conflict) condition	Observed – expected incidence		Conclusion
	Goal escalation pattern	Goal shielding pattern	
Study 1 (taste vs. health):			
Probabilistically real condition	.2308 ^a	.0107	Goal escalation
Hypothetical choice condition	.2059 ^a	.1202	Goal escalation
Car choice follow-up (performance vs. safety)	.1019 ^a	–.2334 ^a	Goal escalation
Shoe choice follow-up (style vs. comfort)	.1296 ^a	.2052 ^a	Escalation and shielding
Restaurant choice follow-up (taste vs. health):			
Tasty-first condition	.3333 ^a	–.0333	Goal escalation
Healthy-first condition	.1209 ^a	–.0495	Goal escalation
Simple average	.1871	.0033	Goal escalation

^aObserved – expected difference for the pattern was significantly different from zero ($p < .05$).

STUDY 3: THE ROLE OF DIFFERENCES IN CHRONIC GOAL CONFLICT

While the first two studies demonstrate strong support for goal reversion, these studies are agnostic with respect to preexisting goal preferences. In the real world, however, consumers often differ in their chronic levels of goal conflict. Thus, in order to better understand the parameters under which goal reversion operates and assess the likelihood of observing it within consumers of varying levels of goal conflict, this study explores how differences in chronic goal conflict correlate with the tendency to exhibit goal reversion. As noted above, if goal reversion requires goal conflict, and goal conflict is stronger for those who see the goals as similar in importance, we expect greater reversion by such individuals.

Method

Participants were 194 undergraduate students who completed this and other unrelated studies in exchange for course extra credit. The choice stimuli for this study were identical to study 1 except that after the choice process was complete, participants indicated on 7-point scales how important eating healthy food and eating tasty food were to them personally (1 = not at all important; 7 = extremely important). Since consumers who are chronically conflicted tend to report the conflicting goals as equally important (see Koo and Fishbach 2008, study 1), we use differences in self-reported goal importance as a proxy for chronic conflict between the two competing goals in this study.

To obtain a measure of goal conflict, we calculated the difference between the importance reports for the two goals for each participant. If the absolute difference was greater than one, the participant was classified as having relatively low goal conflict (i.e., because one goal tended to dominate the other). If the absolute difference was zero or one, the participant was classified as having relatively high goal conflict since neither goal dominated the other. Using this standard, 119 participants were classified as having low goal conflict and 75 were in the high goal conflict category. Technically, participants could be classified as "high conflict" because they did not value either goal. However, because taste is such a fundamental attribute of food preferences, all participants in this study rated its importance as 5 or higher. As such, the high-conflict group in this study consisted of participants for whom both taste and health were important.

Because we were interested in the difference in reversion for those with high and low levels of goal conflict, we did not include a no-choice control condition. That said, aside from the measures of goal importance collected after the choice, the experimental procedures for this study were identical to those used in study 1.

Results

The key test in this study was whether goal conflict moderated the incidence of the THT (goal reversion) preference

pattern. As expected, those who had lower goal conflict were less likely (.0920) to exhibit the THT emerging preference pattern than those with higher goal conflict (.3070; $\chi^2(1) = 14.61$, $p = .001$). Put differently, reversion was largest among those who rated the goals to eat healthy and eat tasty as roughly equally important. A logistic regression with goal reversion as the dependent variable and the absolute difference in goal importance as the predictor confirmed that as disparity in goal importance increased, the magnitude of goal reversion decreased (estimated $B = -.4425$, $Z = 2.97$, $p = .003$).

For completeness, we also examined the THH pattern. We found that participants with low goal conflict were less likely to exhibit the THH pattern (.1933) than those with high goal conflict (.3467; $\chi^2(1) = 5.734$, $p = .017$). This result seems to have occurred because participants lacking goal conflict committed to their more important goal and rarely departed from it. For example, 61% of those in the low-conflict condition exhibited either the TTT or the HHH pattern, while only 31% of those in the high-conflict condition exhibited one of these two patterns.

Discussion

These findings support the idea that goal reversion requires the potential for goal conflict. That is, if one goal is much more important than the other, there is no real goal conflict and so no opportunity for goal escalation to operate. These data indicate that goal reversion will be more common among consumers for whom the competing goals are roughly equally important. In the final study, we reexamine this issue using a manipulation that alters goal conflict via goal salience during the choice process.

STUDY 4: THE EFFECT OF INDUCED GOAL SALIENCE

This study examines how temporarily altering goal conflict with a goal salience manipulation influences goal reversion. Our approach was to alter goal conflict after the third attribute had been read (i.e., after participants had the chance to flip) by making one of the goals more salient. When the initially active goal was made more salient, we expected recommitment to it, which would yield greater reversion. However, when the salience of the competing goal (i.e., the one that induced a flip) was increased, a recommitment to this goal should reduce reversion.

Method

Participants were 189 students from Georgetown University who received course extra credit for completing this study. Each participant made a choice between the two restaurants described by the stimuli of study 1. After reading the first three attributes, participants were told that they had received a text message from a friend who was holding a party in a distant town and was writing to ask for advice. Participants randomly assigned to the tasty-salient condition

were told that the friend was requesting advice about whether to serve cupcakes or cookies at the party. In contrast, participants in the healthy-salient condition were told that the friend was asking for a recommendation on what type of water (sparkling or still) he should serve at the party. In both conditions, participants were required to provide a recommendation before continuing on to the fourth attribute in the restaurant choice.

We used this approach because we needed to direct attention to the goal without allowing participants to fulfill it, as can happen when participants make a goal-relevant choice for themselves (Chartrand et al. 2008). The reason to avoid this is that such choices can produce postfulfillment inhibition, causing the satisfied goal's activation to decline (Atkinson and Birch 1970; Forster, Liberman, and Higgins 2005; Goschke and Kuhl 1993; Marsh, Hicks, and Bink 1998; Marsh, Hicks, and Bryan 1999). The timing of the salience manipulation (i.e., after the third attribute) was determined by our interest in altering temporary goal salience after the goal conflict had been realized (i.e., after the third attribute). We deemed this the appropriate time for the intervention because intervening earlier could prevent participants from experiencing goal conflict. Given that the focus of this article is to understand how consumers manage pre-decisional goal conflicts, it was necessary to allow the conflict to occur and for participants to take steps toward managing the conflict before interrupting them with the salience intervention.

We expected those in the tasty-salient condition would revert to the eat tasty goal, leading to increased preference reversion. In contrast, we expected that those in the healthy-salient condition would stay with the eat healthy goal, causing a relative decrease in preference reversion. In sum, we expected preference reversion to be greater in the tasty-salient than the healthy-salient condition.

Results and Discussion

The critical test was a comparison of the incidence of the THH preference pattern across conditions. As expected, those in the tasty-salient condition exhibited greater reversion to the restaurant aligned with the eat tasty goal (.3332) than did participants in the healthy-salient condition (.2080; $\chi^2(1) = 3.746$, $p = .05$). Put differently, reversion to the tastier restaurant was greater for those who received a text designed to recommit them to the eat tasty goal than it was for those who received a text designed to recommit them to the eat healthy goal. For completeness, we also examined incidence of the THH (goal shielding) pattern across conditions. As expected, there was no difference in incidence of this preference pattern in the tasty-salient (.3870) versus the healthy-salient conditions (.4170; $\chi^2(1) = .172$, $p = .679$).

At first glance the magnitude of goal reversion under the healthy-salient condition seems a bit high. However, this likely stems from the nature of the intervention, in that it involved both a short delay and a focusing of the participant's attention on one of the goals. Consistent with the goal

escalation account and the data from study 2, the delay should cause the originally active goal (eat tasty) to escalate for all participants. This would increase goal reversion. Thus, the focusing aspect of the manipulation was likely operating with or against a higher baseline reversion rate than in the choice conditions from previous studies. As such, it stands to reason that goal reversion would be near typical levels in the healthy-salient condition and higher than typical in the tasty-salient condition.

GENERAL DISCUSSION

Consumers frequently face decisions wherein they cannot get everything they want from one of the options available to them. Often the different options under consideration vary in the degree to which they satisfy competing and important goals. As the competing goals struggle for dominance, goal conflicts are likely. This article investigates how this struggle unfolds and examines what happens to a goal that is set aside during the choice process.

The results of the current work show that when an initially active goal was set aside, its activation escalated until it had a chance to reassert itself. This escalation produced a pre-decisional preference pattern in which consumers reverted to their initially favored option more often than would be expected if the goal's activation level had not changed or if it had receded during the set-aside period. We refer to this phenomenon as preference reversion and the underlying mechanism as goal reversion. We show that goal reversion is robust and that it is exacerbated when pursuit of the set-aside goal is subject to a delay. We also find that it is moderated by goal conflict, both self-reported and that induced by altering goal salience. Specifically, for those individuals who experienced the least conflict between the goals, whether chronic or induced by a goal salience manipulation, the decision process was relatively straightforward. However, for those who held competing goals that were both important to them, goal conflict was heightened. This increased the probability of goal reversion and resulted in an increased incidence of the flip-flop preference pattern.

Across the studies, preference reversion occurred for approximately 20% of our participants. While this percentage is small in absolute terms, it was always significantly greater than that which would be predicted by a decision model devoid of motivational influences (i.e., one based on just the diagnosticity and importance of the attribute information). Moreover, this segment of consumers is significant, both practically and theoretically.

Practically, the segment of consumers who value both of the goals, and hence are experiencing the greatest goal conflict, is of interest to marketers because it is this segment that is most likely to be undecided before the decision. As such, they are the most likely to be affected by external factors or persuasion attempts. However, note that this conflict derives from the conflict between the goals themselves and not from mere indecision. Participants for whom one goal was more important than the other were the least likely to exhibit goal reversion (study 3). Increasing conflict by

increasing the salience of the set-aside goal during the choice process increased goal reversion (study 4).

We are not the first to study how emerging preferences change during a choice process. Carlson, Meloy, and Lieb (2009) found that people who flipped from a cheaper option to a more expensive one tended to stay with the more expensive option, a finding consistent with goal shielding. But these authors also found that those who flipped from a more expensive option to a cheaper option tended to flop back to the more expensive option upon encountering additional neutral benefits information about the options, a result consistent with goal escalation. Unfortunately, Carlson et al.'s (2009) findings cannot speak to the question of interest here because those findings were not derived from choices in which the goals were in conflict; rather, they focused on benefits versus price. In such settings, participants could find the cheaper option both more attractive and better on price, or they could translate the higher-priced option's price into quality and find it both more appealing and higher quality.

Understanding how consumers manage predecisional goal conflicts is important theoretically. On the basis of an existing knowledge of goals, we identified two mechanisms by which consumers may resolve such conflicts—goal shielding and goal escalation. Our findings are consistent with goal escalation. Indeed, our goal reversion and flip-flop preference data suggest that during choice processes involving competing goals, there is relatively little evidence of goal shielding. On the one hand, this makes sense because it is during the choice process that consumers learn what matters most to them at that moment and whether the options available can enable them to meet their goals. Thus, it stands to reason that consumers would maintain an open mind and not shield either goal until all of the information available had been examined and a final choice made. On the other hand, the lack of predecisional shielding is a bit surprising because it would seem that the benefits of shielding would be largest during the choice process. For example, the best time to shield oneself against a goal to eat tasty food would be before the choice of dinner entrée is made.

The reversion preference pattern is also noteworthy given the substantial amount of evidence suggesting that when a consumer develops an initial preference for one option over another, s/he tends to bias new information to support that option, thereby keeping it leading throughout the choice process (e.g., Carlson, Meloy, and Russo 2006; Russo, Carlson, and Meloy 2006). We find that when goals conflict, many consumers switch leaders (i.e., flip), and many of them subsequently revert back to their initial leader (i.e., flop), even though the new information does not objectively merit reversion. This may seem like a difference without consequence since many of these consumers end up selecting their initial leader anyway, but understanding how goal conflicts are managed is important for information sequencing and for when attempts should be made to close a sale. For example, predecisional distortion studies suggest that if one calls for a choice at any point in the choice process, one will find that the initially leading option is generally selected.

However, in our studies, the timing of the call for choice is likely to have a large bearing on which option will be selected.

One possible reason for the difference between leader-driven primacy (Carlson et al. 2006) and preference reversion is that predecisional distortion studies have not examined choices involving goal conflict. As such, they do not actually speak to the setting of interest here, namely, choices in which the two products are means to achieving two different and competing goals. Thus, future research might explore whether predecisional distortion occurs in choices in which the options are aligned with conflicting goals.

Our findings also have methodological implications. In most goals-based research, goals are inferred using either end-of-process choices or reaction times to words related to the goals in question (e.g., lexical decision tasks). For those interested in mapping the goal-to-behavior linkages that emerge during a choice process, we provide a means for doing so. By observing which option is preferred at any point in the choice process, it is possible to determine which goal is most active at that point in that process. In theory, this approach should be scalable to more than two options, so long as each option is a means to a different goal. It may even be possible to use the rank ordering of the choice options at a particular point in the choice process to infer the relative activation levels (on average) of several goals.

Our findings have strategic implications for consumers who may be depleted and are seeking to enhance their self-control. In order to protect against making short-run decisions with undesirable long-run consequences, consumers might make efforts to avoid ever considering such short-run goals that are high on long-term costs. For example, the decision to peruse the dessert menu at a restaurant could create an initially active eat tasty goal that could increase in activation if it is thwarted. Thus, despite verbalizing disinterest in dessert, when others at the table order dessert, a consumer may fall prey to reversion of her eat tasty goal, and she might find herself ordering dessert. The way around this is to avoid allowing this goal to become active in the first place. Avoiding the dessert menu is one approach. Stating publicly that she is watching what she eats may work even better because it activates eat healthy as the primary goal. When it comes to controlling oneself at home, one obvious approach is to replace foods that can activate the goal to eat tasty (e.g., cookies and candy) with foods that activate the goal to eat healthy.

Future work might examine how to remediate such self-control lapses. One possibility would be to investigate the role self-control plays in creating or reducing goal reversion, particularly when the set-aside goals involve pursuit of hedonic or utilitarian options. Examining implementation intentions (Gollwitzer and Sheeran 2006) may also prove useful in remediation efforts. Second, future research may consider the role of anticipated regret in predicting patterns of flipping and flopping. Reminding individuals of the negative long-term consequences of their short-term actions

may prime the additional goal of avoiding regret (Luce 1998). It is not clear whether this affect-based goal interacts with or supersedes the behavioral goals to eat tasty and eat healthy. Future research could examine such goal hierarchies.

The current work sheds light on how conflicting goals are managed during the predecisional period and suggests that when two goals are competing for dominance in that choice process, goal escalation is prevalent. The greater the felt conflict between these goals, the more likely goal escalation is to occur. The conflict between goals can occur due to roughly equal chronically important goals or because a conflicting goal is primed during the choice process.

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