The Uncertain Self: How Self-Concept Structure Affects Subscription Choice

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> Whether it is clothing, meals or an exercise regimen, consumers purchase a wide range of goods on a recurring basis using a subscription model. While past research indicates that people continue to subscribe to these services even when they rarely use them, no work to date has examined how identity considerations affect preferences in this domain. Building on research on signaling and selfconcept structure, we propose that quitting an ongoing subscription can threaten the stability of the self-concept by signaling a change in identity. Consumers who are uncertain about their self-concept (i.e., low self-concept clarity) and motivated to maintain a stable self-concept are thus more likely to keep unused subscriptions than those who are more certain. In support of the underlying mechanism, we demonstrate that self-concept clarity affects choices only for identity-relevant subscription choices, and that it affects choices for subscriptions, but not one-shot product choices that are a weaker signal of identity. Finally, because signing up for a new subscription also signals an identity change that can threaten the stability of the self, consumers with low self-concept clarity are also less likely to subscribe to a new service compared to those with more certain self-concepts.

> Keywords: self-concept clarity, subscription services, self-signaling, retention choice, self-concept structure, identity signaling

From beauty samples to pet products, consumers today obtain a wide range of goods and services via a subscription model, in which they pay a periodic fee to continue to receive or maintain access to a product or service. The subscription commerce market has grown by more

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than 100% in each of the last five years, and generates revenues in excess of \$2.6 billion annually (Chen et al. 2018). It is well established that consumers often continue to pay for services that they do not use (DellaVigna and Malmendier 2006; Gourville and Soman 1998; Lambrecht and Skiera 2006), a pattern that may increasingly harm consumer welfare as a growing number of consumers find themselves paying for subscriptions they do not want or need (Williams 2017a, 2017b). One factor known to affect decision-making even when options offer limited consumption value is a consumer's desire to choose options that symbolically affirm, construct, and communicate their identity. Despite the widespread acceptance of identity motives as a driver of choice and the likely importance of such considerations for understanding subscription choices, researchers have not yet examined if and how identitysignaling affects decision-making in this domain.

Traditional choice research explains observed preferences by asserting that consumers choose the option that offers the highest utility. More recently, research has established that choice is also impacted by consumers' identity motives, beyond the functional utility of the chosen option.

Consumers choose options consistent with a salient identity (LeBoeuf, Shafir, and Bayuk 2010; Reed 2004; Reed et al. 2012: Sirgy 1982), and to signal desirable traits, membership in desirable groups, or dissociation from out-groups (Berger and Heath 2007, 2008; Escalas and Bettman 2003, 2005; White and Dahl 2006, 2007). Recent research has shown that not only are consumers motivated to signal to others, but they also receive benefits from what their choice tells them about their own values and traits (Gneezy et al. 2012; Savary, Goldsmith, and Dhar 2015; Touré-Tillery and Fishbach 2012). Most research to date on identity motives and self-signaling in choice has relied on a content-based paradigm, whereby decision makers choose an option with attributes that signal about a specific trait (i.e., Gatorade to signal athleticism). In contrast, we are interested in subscription choices more generally, across multiple product categories. When an ongoing subscription involves goods or services that relate to a desirable identity, we propose that quitting it can signal a change in identity, which can threaten the stability of the self-concept. We use this conceptualization to make predictions about who will be more likely to retain subscriptions that they rarely use, and when we expect such effects to occur.

Our main proposition is that consumers with low selfconcept clarity, who have unstable, uncertain, or less coherent self-concepts (i.e., "low SCC") are motivated to avoid actions that signal a change in their self-concept. As a result, they are more likely to keep identity-relevant subscriptions than consumers who have high SCC. Several boundary conditions provide converging evidence for our theory about why being uncertain about one's self-concept increases likelihood of keeping subscriptions. Across studies, low SCC increases likelihood of retention when subscriptions are identity-relevant, and therefore quitting would signal an identity change. In contrast, SCC does not affect preferences for choices that do not convey selfrelevant information, such as subscriptions for goods that are not identity-relevant, or one-shot product choices that are less associated with consumers' identities. Finally, because signing up for a new subscription also signals an identity change that can threaten the stability of the self, we show that low SCC consumers are also less likely to acquire a new service than those with higher SCC. Said differently, when consumers have lower SCC they are motivated to retain, but reluctant to acquire, the same identity-relevant subscriptions.

The article advances extant theory in several ways. First, prior work on self-signaling has primarily demonstrated that choices can signal about the content of the self-concept (Gneezy et al. 2012; Savary et al. 2015). However, to our knowledge the current findings are the first to demonstrate that choices can also serve as a self-signal about the *structure* of the self-concept, independent of the content. Second, we advance SCC as an important construct for understanding consumer choice, and show that for low

SCC consumers, the desire to avoid identity change can impact choice. This allows us to offer a more nuanced understanding of identity-driven consumption, beyond the current idea that consumers are more likely to choose items consistent with a specific salient or threatened self-view. These findings also extend prior work on compensatory consumption that has largely documented within-domain responses to self-threats. Instead, we show that a more general threat to the stability of the self-concept structure can affect preferences across a range of goods from different domains. In addition, whereas compensatory consumption has mostly focused on acquisition choices for material goods, our work also documents its effect for retention choices, and we use nonmaterial goods (i.e., subscription services). Last, our results have substantive implications. Despite the rapid growth of subscription commerce, research in consumer psychology has lagged in providing insights into the distinct motivations related to this increasingly important form of consumption. We find that one reason people may continue to subscribe to a service they rarely use is to avoid a change to their current identity that might threaten the stability of their self-concept. In doing so this work establishes the central role of identity motives for understanding decision-making in the subscription commerce domain.

THEORETICAL DEVELOPMENT

It is well established that in addition to functional utility, people choose options to symbolically construct, confirm, and communicate their identity (Berger and Heath 2007; Escalas and Bettman 2005; White and Dahl 2007). A related stream of research on self-signaling also finds that consumers choose options in order to signal their own desirable traits and values to themselves. According to self-signaling theory, people anticipate what their choices will allow them to infer about themselves before making their decision. This potential diagnostic value is incorporated into their total utility (Bodner and Prelec 2003), which in turn affects their choice. This notion has been used to explain several surprising phenomena, such as why people choose to pay more for an item when the price is self-determined (i.e., "pay-what-you-want," Gneezy et al. 2012), and why they are more likely to donate anonymously when the charitable appeal mentions an indulgent product (Savary et al. 2015). A third set of related findings falls under the umbrella of compensatory consumption, showing that consumers respond to a threat to a valued self-view (e.g., power, intelligence) by choosing actions and products that signal mastery in the threatened domain (for an in-depth discussion, see Mandel et al. 2017).

In summary, prior research has found that consumers are motivated to choose an option to signal (to others or to

themselves) that they possess a specific desirable or threatened trait. However, it remains an open question whether choices that signal a change in identity, and thus threaten the general stability of the self-concept (and not a specific trait), will systematically affect consumer preferences across diverse identity-relevant categories. We examine this question in the context of subscription choices. The choice to quit a current subscription can signal a change to one's identity, because it may indicate that the consumer is surrendering a valued goal or self-view. For example, imagine a consumer with an unused gym membership, or who receives issues of The Economist that go unread. As long as she continues to retain the subscription, she can maintain the belief that she is an athlete, or an intellectual. However, if she decides to cancel her subscription, it may force her to admit to herself that she has given up on those aspects of her identity. Similarly, signing up for a new subscription may indicate commitment to a new aspect of the self, which is also a change in identity. In contrast, a choice about a single yoga class or one issue of a magazine is unlikely to have the same effect, because such individual product decisions convey relatively less information about the decision maker.

Several recent findings support the notion that the diagnostic strength of a given choice can vary, even when the underlying content of the signal is similar. For example, Touré-Tillery and Fishbach (2012) found that students were more honest during choices they made first or last in a series, because those decisions are a stronger signal about one's ethical nature compared to when the same choice occurs in the middle of a sequence (also see Dhar and Wertenbroch 2012; Touré-Tillery and Fishbach 2015; Touré-Tillery and Light 2018). These findings suggest that choices about similar items, with the same underlying symbolic content, can vary with respect to how strongly they are linked to one's identity. Accordingly, we expect that subscription choices, which have more potential to signal a change in one's identity, will be more self-diagnostic than a traditional one-shot product choice (i.e., buying a single issue of a magazine), even when the underlying item is similar.

Because of the central role this conceptualization plays in our theory, we first conducted a pretest to empirically examine the premise that subscription choices are more self-diagnostic, and thus more likely to signal an identity change than a one-time product choice in the same domain. Participants (N = 92) evaluated three choice scenarios: (1) a choice to retain (vs. cancel) a current identity-relevant magazine subscription, (2) a choice to start subscribing to the same new magazine subscription, and (3) a one-time choice of a single issue of the same magazine. Participants rated each choice using an established measure of self-diagnosticity drawn from prior literature. Sample items include the degree to which the choice would "say a lot about who I am," "reflect my inner goals and values," and be

"very telling of my character" (Touré-Tillery and Light 2018). As expected, compared to the one-time product choice ($\alpha = .97$, M = 4.6, SE = .18), both the choice to retain a current subscription and the choice to acquire a new subscription were stronger, more diagnostic choices (subscription retention choice, $\alpha = .96$, M = 4.9, SE = .17, t(91) = 2.4, p = .017; subscription acquisition choice $\alpha =$.96, M = 4.9, SE = .16, t(91) = 2.9, p < .01). Because subscriptions tend to be more closely linked with one's identity than a single product, consumers are more likely to see subscription choices as a change to their identity, which can threaten the stability of the self-concept, compared to a one-shot product choice in the same domain. Because subscription choices are believed to have a greater impact on self-identity, we expect that consumers who are motivated to maintain a stable self-concept will respond differently to decisions about subscriptions than those who are not as concerned about the stability of their self-concept.

Our central proposal is that an established structural aspect of the self-concept known as self-concept clarity (SCC, Campbell 1990) will affect subscriptions preferences. This occurs because subscription choices signal a change in identity, and SCC affects consumers' motivation to maintain a stable self-concept and avoid identity change. Our interest in the structure of the self-concept builds on contemporary psychological theories that describe the selfconcept as a dynamic cognitive schema comprising both evaluative "content" and a distinct "structure" (Campbell, Assanand, and Di Paula 2003; Markus and Wurf 1986; Rosenberg 1979). The content of the self-concept includes diverse self-views, such as "I am altruistic" or "I am an American," and evaluative aspects, such as self-esteem (how positively or negatively I view myself). In contrast, structural measures of the self-concept are not related to specific content, but instead describe more general properties, such as how the content is organized, and the relationship among different pieces of content (i.e., how many identities one has and how much overlap there is between those identities; Linville 1985, 1987).

In the current article we focus on self-concept clarity (SCC), which captures the stability or clarity of the knowledge structure: "the extent to which self-beliefs are clearly and confidently defined, internally consistent, and stable" (Campbell et al. 1996). SCC is a global, structural aspect of the self-concept, and thus is theoretically orthogonal to the content of the self-concept. People may be clear or unclear about who they are on a general, structural level, but that subjective clarity is unrelated to the specific content of their beliefs, such as "I am an athlete," or to the overall positivity or negativity of their self-view. Consequently, an individual may have a fairly negative view of herself but feel very sure about that view—in which case she has low self-esteem, but high SCC. In contrast, she may have a positive view of herself but feel very inconsistent or unsure of those beliefs, in which case she has high self-esteem, but low SCC

When consumers have low SCC, their self-concept is less coherent and stable. Prior research suggests this has two effects. First, low SCC increases the degree to which consumers are susceptible to, and influenced by, external, self-relevant information (Campbell 1990; Lee, Lee, and Sanford 2010; Mittal 2015; Vartanian 2009; Vartanian and Dev 2013). For example, low SCC women are more likely to internalize other people's expectations about physical attractiveness than high SCC women (Vartanian 2009). In the domain of online shopping, low SCC consumers were more influenced by recommendations on the website than those with higher SCC (Lee et al. 2010). Second, low SCC can reduce the psychological resources consumers have available to process identity-relevant information, which limits their willingness to integrate potential changes to the self-concept into their cognitive structure. For example, consumers with low SCC take longer to decide if an adjective represents their identity (Campbell 1990). Emery et al. (2015) posit that people with high SCC are open to identity change because they have sufficient resources to integrate the new information into their self-concept. In contrast, people with lower SCC avoid choices or behaviors that may cause identity change because they lack those coping resources. Consistent with this prediction, the authors demonstrate that people with lower SCC are motivated to avoid actions that they believe will alter their self-concept, even if those activities are usually considered positive (also see Rodas and Torelli 2017). Taken together, these findings suggest that consumers with low SCC lack the psychological resources needed to integrate changes to their selfconcept. Therefore, in order to preserve and maintain their existing self-concept, they are motivated to avoid choosing options that threaten the stability of their self-concept by signaling an identity change. In contrast, a consumer who has strong, clear, and consistent beliefs about herself (i.e., high SCC), with adequate resources to integrate identity information, will be less impacted by the potential effect of her choices on her self-concept, and hence her choices will be more influenced by functional considerations.

This proposed process is analogous to how consumers choose in response to threats to specific self-views. Specifically, compensatory consumption researchers have found that in response to a threat to a specific self-view, such as a trait or social identity, consumers often choose items that signal mastery in the threatened domain, a process known as symbolic self-completion (Gollwitzer, Wicklund, and Hilton 1982; Wicklund and Gollwitzer 1981). For example, participants who felt they lacked power were willing to pay more for products that signal high status (Rucker and Galinsky 2009), and consumers encouraged to doubt their intellectual abilities were more likely to choose a fountain pen that symbolized intelligence over candy (Gao, Wheeler, and Shiv 2009). In a similar

vein, we find that consumers respond to situations that threaten the overall stability of their self-concept by choosing options that signal a consistent identity. This finding extends our understanding of how consumers use compensatory consumption to cope with self-threat by demonstrating a compensatory response to a general, structural threat to the stability of the self, rather than a threat to a specific trait or self-view.

In summary, the choice to quit an ongoing subscription can signal a change to one's identity, which can threaten the stability of the self-concept. As a result, consumers with low SCC are more likely to retain an unused subscription than those with higher SCC. We examine this proposal by endowing people with subscriptions that have limited consumption value, which they pay for but rarely use. Although intuition suggests that most people should quit a costly subscription with little functional utility, we predict that the decision to retain the subscription will depend on the structure of the decision maker's self-concept.

H1A: Low SCC (vs. high SCC) will increase a consumer's relative preference for the option that minimizes identity change and maintains the stability of their self-concept. Therefore low SCC will increase the likelihood that a consumer will choose to retain unused, identity-relevant subscriptions, compared to higher SCC.

Our account further predicts that SCC should affect only subscription choices that are relevant to one's identity, and would signal an identity change. Research has clearly established that some products and brands are more closely linked to one's identity than others (Berger and Heath 2007; Mick 1986; Rozenkrants, Wheeler, and Shiv 2017; White, Argo, and Sengupta 2012). Berger and Heath (2007) identified two highly correlated dimensions of identity relevance: the degree to which other people use the target item to make inferences about the user, and the degree to which the target item can be used for self-expression. A different stream of research also found that some products and brands are perceived to be more likely to express their users' values and characteristics, and better able to communicate meaning about the demographic and lifestyle factors of the user (Johar and Sirgy 1991; Sirgy and Johar 1985). We build on these prior findings to define identity-relevant subscriptions as those that express and can be used to infer a positive, desired identity, whereas neutral products are less able to express or signal a positive identity. We expect self-concept structure to affect preferences for identityrelevant subscriptions, but this difference will attenuate for neutral subscriptions, which do not signal a change to one's identity, and therefore should not threaten the stability of one's self-concept.

H1B: The effect of SCC on the tendency to retain a subscription will be moderated by the identity relevance of that subscription. SCC will affect only the choice to retain

subscriptions that are identity-relevant and will not affect retention likelihood for neutral subscriptions.

According to our theory, low SCC increases subscription retention for identity-relevant goods because quitting would signal an identity change and threaten the stability of the self-concept. Therefore, any subscription choice that signals a change in identity should be less appealing to low SCC consumers. Because acquiring a new subscription also signals a change (albeit a potentially positive one) or an expansion of identity, we expect consumers with low SCC will also avoid acquiring new identity-relevant subscriptions.

H2A: Low SCC motivates consumers to avoid options that signal identity change. Therefore, low SCC will also decrease how likely consumers are to acquire a new identity-relevant subscription, compared to high SCC.

Finally, we have proposed that self-concept structure should affect only choices that signal a change to identity, and thus threaten the stability of the self-concept, and should not affect decisions that do not signal an identity change. Therefore, we expect that the effect of SCC on choice should attenuate for one-time product decisions, which are less strongly linked to one's identity, and thus are a relatively weaker self-signal (i.e., less self-diagnostic), even when the underlying product is similar.

H2B: When the decision is a one-time product choice, such as the choice to acquire a single issue of a magazine, it is a relatively weak signal of identity change. Therefore, the effect of SCC will attenuate for one-time product choices.

Next, we present six studies to test these hypotheses. First we document the relationship between SCC and retention of subscriptions in the "real" world, using correlational survey data. Then we report five experiments designed to test the central hypotheses, hypothesis 1A through hypothesis 2B. We conclude with a discussion of the theoretical and practical implications of these findings.

STUDY 1: SURVEY DATA EXPLORING THE RELATIONSHIP BETWEEN SELF-CONCEPT CLARITY AND SUBSCRIPTION RETENTION

Study 1 explores the relationship between SCC and subscription retention in a natural setting. If people with low SCC tend to keep unused subscriptions to maintain a stable self-concept, then they should end up actually having and paying for more of these unused, identity-relevant subscriptions in their own lives. To investigate this possibility, we conducted a survey in which we asked 1,150 people to report the unused subscriptions that they currently have, and we measured their SCC.

Method

Pretest. The subscriptions used in this study were selected based on a series of pretests. First, 600 participants were asked to generate examples of paid subscriptions, memberships, or apps that they have but do not use, and 93% of them were able to do so. Commonly mentioned items included newspaper and magazine subscriptions. club memberships, digital media services, and "box of the month" plans. Next, a different group of 400 participants rated the identity relevance of a subset of 15 of the most common items, using a scale drawn from prior literature (Sirgy and Johar 1985). Scale items were, "this product tells me something about its user," "this product communicates certain symbols about the person who uses it," and "this product doesn't say much about its user" (reversescored), 1 =Strongly Disagree to 5 =Strongly Agree. The five highest-rated items (e.g., health club; weight loss program; language learning program) were designated "identity-relevant," and the five lowest-rated items (e.g., wholesale shopping club; a generic, untitled magazine subscription; an item-of-the-month club) were designated "neutral."

Main Survey Participants. For the main survey we recruited 1,150 individuals who had not participated in the pretests (647 males, $M_{\rm age}=31.9$) from Amazon Mechanical Turk (MTurk) to complete the study in exchange for a small monetary payment.

Procedure. The main survey consisted of two parts. First participants read, "Our research investigates monthly subscriptions or memberships that people purchase but don't use as much as they expect—things people continue to pay for, even though they don't get much use out of them. Do you have, but don't use, any of the following PAID Memberships / Subscriptions / Smartphone Apps / Services?" Below this prompt, the items generated during the pretests appeared in a random order, with an empty checkbox next to each item. Participants were able to check as many of the subscriptions as they wanted.

Next, they completed the established 12-item SCC scale (Campbell et al. 1996). Sample items include, "In general, I have a clear sense of who I am and what I am," "My beliefs about myself seem to change very frequently" (reverse-scored), and "My beliefs about myself often conflict with one another" (reverse-scored), 1 = Strongly Disagree to 5 = Strongly Agree. Finally, participants filled out

Although in this study a subscription to a generic magazine with no title was rated as relatively uninformative about the subscribers' identity, a subscription to a particular magazine (with the title clearly specified) that has strong identity associations can be informative about the type of person that subscribes (i.e. a subscription to *The Economist* can signal the reader is intelligent or educated). Therefore, in subsequent studies a subscription to a particular magazine was rated as identity-relevant when the specific title of the magazine conveys identity-relevant information about the subscriber.

TABLE 1
RESULTS OF STUDY 1

	Model 1	Model 2	Model 3
	Identity-relevant subscriptions	Neutral subscriptions	Difference score
Total selected	.29 (.01)**	.35 (.01)**	_
Age	004 (.001)**	.006 (.001)**	_
Gender	.008 (.03)	05 (.03)	_
Self-esteem	.05 (.01)**	007 (.01 5)	06 (.03)*
Self-concept clarity	04 (.02)*	01 (.02) [^]	.07 (.03)*

NOTE.— *p < .05; **p < .01.

demographic information that included mood, age, gender, and a single-item self-esteem measure (Robins, Hendin, and Trzesniewski 2001).

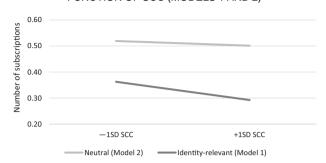
Results and Discussion

We expected that people with lower SCC would report owning more unused identity-relevant subscriptions, memberships, and apps than those with higher SCC. We also predicted that SCC should have little effect on the number of neutral items they have. To test these predictions we created two measures: the number of identity-relevant subscriptions selected by each participant (0 to 5), and the number of neutral items selected by each participant (0 to 5). Next, we created an SCC score for each participant by taking the average of the items on the SCC scale ($\alpha = .92$). Finally, we conducted two separate regressions with the number of identity-relevant subscriptions or number of neutral subscriptions as the dependent measures, and the total number of items selected, gender, age, self-esteem, and SCC as predictors. A negative and significant relationship between self-concept clarity and number of subscriptions emerged for identity-relevant subscriptions (b = -.04, SE = .02, p = .042); see table 1, model 1, and figure 1. In contrast, self-concept clarity was unrelated to number of neutral subscriptions (b = -.01, SE = .02, p = .6); see table 1, model 2, and figure 1.

To test the effect of SCC on the differential retention of the two types of subscriptions, we calculated a difference score for each individual by subtracting the number of identity-relevant subscriptions from the number of neutral subscriptions. We then regressed the difference score on SCC and self-esteem. This analysis allowed us to control for within-subject differences in the overall likelihood of having unused subscriptions. Because self-esteem and SCC are often correlated (Baumgardner 1990), we included both measures in the analysis to identify the independent effect of SCC. As expected, the difference between the number of neutral subscriptions and the number of identity-relevant subscriptions increased as SCC increased, in a regression

FIGURE 1

RESULTS OF STUDY 1. NUMBER OF SUBSCRIPTIONS AS A FUNCTION OF SCC (MODELS 1 AND 2)



controlling for self-esteem (b = .07, SE = .03, p = .04), see table 1, model 3.

These data are initial evidence of a relationship between SCC and retention of unused identity-relevant subscriptions, consistent with hypothesis 1A. Although this is an important exploration of the effect of self-concept structure on subscription choices, and enhances the external validity and potential generalizability of our predictions, correlational findings like these are open to alternative explanations. For example, there may be a third construct that drives both SCC and subscription retention, or it is possible that completing the survey about how many unused subscriptions participants have instead affected their SCC—the result of reverse causality. Therefore, in the remaining studies we experimentally manipulate SCC and measure retention in controlled experimental settings.

STUDY 2: THE EFFECT OF SELF-CONCEPT CLARITY ON RETENTION OF UNUSED SUBSCRIPTIONS

Study 2 tests our central hypothesis, that the structure of the self-concept can influence consumers' relative preference for retaining identity-relevant subscriptions. We manipulated SCC and then asked participants to choose whether to retain or cancel services and subscriptions that have little consumption value (i.e., that they do not use). Between-subjects, we manipulated whether participants evaluated identity-relevant subscriptions, which would signal a change of identity if canceled, or neutral subscriptions. We expected that low SCC would motivate people to retain unused identity-relevant subscriptions, compared to those in the high SCC condition (hypothesis 1A). However, SCC should not affect the choice to retain a

neutral subscription, so we expected an interaction of SCC and subscription type (hypothesis 1B).

Method

Participants. We recruited 186 participants (108 males, $M_{Age} = 32.3$) from a subject pool maintained by a private business school to complete the study in exchange for a small monetary payment.

Self-Concept Clarity Manipulation and Manipulation Check. Participants wrote an essay that has been shown to temporarily affect self-concept clarity (Hogg et al. 2007). In the low SCC conditions, they wrote about three aspects of their lives that made them *uncertain* about themselves and their lives. In the high SCC conditions, they wrote about three aspects of their lives that made them *certain* about themselves and their lives. To ensure that the manipulation had the desired effect, we measured SCC after the dependent measure, using the same 12-item SCC scale (Campbell et al. 1996) reported in study 1, with the addition of the following sentence in the study instructions for the SCC scale: "The questions in the next study are about how you perceive yourself *right now*."

Dependent Measure. The primary dependent measure was participants' likelihood of keeping versus canceling four different unused subscriptions. In the identity-relevant conditions, the digital magazine scenario read, "You have a digital subscription to the magazine The Economist, which costs \$9.99 a month. You rarely read the magazine, and you are considering canceling the subscription (there is no cost to cancel). Based on this information, how likely are you to cancel your subscription?" A health club membership, an online program that supplied a personalized daily workout, and a monthly delivery service for healthy snacks were described in similar detail.

In the neutral conditions, participants saw parallel subscriptions that cost the same, and were described using identical language to their identity-relevant counterparts, but the underlying products were pretested to confirm that they did not have the same potential to signal positive, identity-relevant information. Specifically, 171 people $(M_{\rm age} = 37.6, 46\% \text{ female})$ evaluated the identity-relevant and neutral items using the following scale: "Owning this product tells me something positive about myself," "Having this product would communicate certain desirable qualities about me," "If I possess this product, it says undesirable things about me" (reverse-scored), 1= Strongly Disagree to 5 =Strongly Agree. As expected, *The* Economist was perceived as more identity-relevant than People magazine ($M_{\text{economist}} = 3.6$, SD = .83 vs. $M_{\text{people}} =$ 2.8, SD = .80, t(161) = 8.6, p < .001), a health club membership was more related to identity than a wholesale shopping club (e.g., Sam's Club or Costco) membership $(M_{\text{healthclub}} = 4.0, \text{SD} = .70, M_{\text{shoppingclub}} = 3.4, \text{SD} = .75,$ t(161) = 7.9, p < .001), the daily workout program was more identity-relevant than the parallel daily music program ($M_{\rm dailyworkout} = 3.9$, SD = .79, $M_{\rm dailyplaylist} = 3.5$, SD = .75, t(161) = 5.90, p < .001), and the healthy snack delivery service was more identity-relevant than the indulgent snack delivery service; $M_{\rm healthysnack} = 3.7$, SD = .83, $M_{\rm indulgentsnack} = 2.9$, SD = .86, t(161) = 8.6, p < .001). See the web appendix for the exact wording of each scenario.

Participants were assigned to either the identity-relevant subscription condition, in which they evaluated all four identity-relevant scenarios, or the neutral condition, in which they evaluated all four neutral scenarios. Each scenario was presented on a separate screen, and participants indicated their response on a nine-point scale (1 = Cancel to 9 = Keep) before moving to the next one.

Procedure. Participants were randomly assigned to one of four conditions in a 2(SCC: low vs. high) x 2 (subscription type: identity-relevant vs. neutral) between-subjects experimental design. Participants first completed the SCC manipulation, then saw either the four identity-relevant subscriptions or the four neutral subscriptions and indicated how likely they were to keep each subscription. Next, they completed the SCC manipulation check, mood and self-esteem measures, and demographic questions.

Results and Discussion

Manipulation Check. The essay task affected SCC scores (α = .94) as predicted, $M_{\rm lowSCC}$ = 3.39, SD = .95 versus $M_{\rm highSCC}$ = 3.69, SD = .91, F(1, 184) = 4.76, p = .03, d = .32. Mood and self-esteem did not vary by condition (ps > .1).

Likelihood of Retaining. We predicted that participants in the low SCC condition would be more likely to retain unused identity-relevant subscriptions than those in the high SCC condition, but that SCC should not affect whether people retain neutral subscriptions. To test this, we conducted a repeated-measures ANOVA, with scenario as the withinsubject factor, and SCC manipulation condition and type of subscription as the between-subject factors. There were no significant within-subject effects, so for clarity we report the estimated marginal means across scenarios for each between-subjects condition. See table 2 for means and standard errors for each scenario. Confirming hypothesis 1B, this analysis yielded a significant SCC condition by subscription type interaction, F(1, 181) = 4.95, p = .027; see figure 2. There was a main effect of subscription type F(1, 181) = 10.86, p < .001, but not of SCC manipulation (p > .1). To test hypothesis 1A, we examined the effect of SCC on retention of only the identity-relevant subscriptions. Consistent with our hypothesis, people in the low SCC condition were more likely to retain the subscriptions than in the high SCC condition ($M_{lowSCC/identity-relevant}$ = 2.5, SE = .15 vs. $M_{\text{highSCC/identity-relevant}} = 1.9$, SE = .18,

TABLE 2

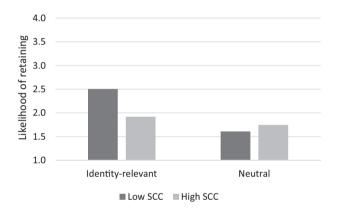
RESULTS OF STUDY 2. LIKELIHOOD OF RETAINING UNUSED SUBSCRIPTION BY SCENARIO, AS A FUNCTION OF SCC CONDITION AND SUBSCRIPTION TYPE

	Identity-relevant		Neutral	
	Low SCC	High SCC	Low SCC	High SCC
Magazine	1.8 (.16)	1.5 (.19)	1.2 (.18)	1.4 (.17)
Club Daily app	3.1 (.26) 2.5 (.18)	2.5 (.32) 1.5 (.23)	1.8 (.30) 1.3 (.21)	1.9 (.28) 1.6 (.20)
Snack delivery	2.6 (.23)	2.2 (.28)	2.1 (̀.26)́	2.1 (.24)
Average	2.5 (.15)	1.9 (.18)	1.6 (.17)	1.7 (.16)

NOTE.—Average is a calculated variable. Standard errors are in parentheses.

FIGURE 2

RESULTS OF STUDY 2. AVERAGE LIKELIHOOD OF RETAINING AN UNUSED SUBSCRIPTION AS A FUNCTION OF SCC CONDITION AND SUBSCRIPTION TYPE



F(1, 181) = 6.4, p = .012, d = .46.) SCC did not affect whether participants retained the neutral subscriptions ($M_{\text{lowSCC/neutral}} = 1.6$, SE = .17, $M_{\text{highSCC/neutral}} = 1.8$, SE = .16, F(1, 181) = .36, p > .5).

These findings are consistent with hypothesis 1A and indicate that low SCC consumers are more likely to retain costly unused identity-relevant subscriptions than consumers with higher SCC. Importantly, these data also confirm hypothesis 1B, and show that SCC affects preferences only when the choice is relevant to the self-concept. This interaction suggests that SCC does not affect the general tendency to keep or quit services. Instead, consistent with our theoretical framework, the motivation to maintain a stable self-concept increases retention only of subscriptions that are identity-relevant and thus have the potential to signal about the stability and coherence of the self-concept. Study 3 is an additional test of these hypotheses, using a different manipulation of SCC.

STUDY 3: BOLSTERED SELF-CONCEPT CLARITY MAKES PEOPLE LESS LIKELY TO RETAIN UNUSED SUBSCRIPTIONS

According to our theory, people with low SCC retain subscriptions because they are motivated to maintain a stable self-concept, and thus avoid actions that signal identity change. Therefore, temporarily bolstering SCC should reduce that motivation and as a result decrease the likelihood of retaining the unused subscription. However, consistent with hypothesis 1B, bolstering SCC should not affect whether people retain neutral subscriptions. Study 3 examines these proposals, which provide additional experimental tests of hypothesis 1A and hypothesis 1B.

Method

Participants. Two hundred fourteen participants (93 males, $M_{\rm age} = 21.8$) completed the survey in a behavioral laboratory in exchange for a monetary payment.

SCC Manipulation. Study 3 used a different manipulation of SCC, also adapted from prior literature (Morrison and Johnson 2011). In the bolstered SCC condition, participants were asked to "spend a few moments thinking about a personal possession that especially reflects who you are" and to "write a few sentences about that possession—what is it, why do you value it, how exactly does it reflect who you are?" Participants in the control SCC condition instead wrote about a personal possession that was especially useful. Morrison and Johnson (2011) found that writing about a possession that reflects who you are significantly increased SCC.

Procedure. Participants were randomly assigned to one of four conditions in a 2 (SCC: control vs. bolstered) \times 2 (subscription type: identity-relevant vs. neutral) between-subjects design. SCC was manipulated as described above, and then participants saw either two identity-relevant scenarios from study 2 (daily workout app and the healthy snack delivery) or two parallel neutral scenarios (daily playlist app and indulgent snack delivery). Each subscription scenario was presented on a separate screen, and participants indicated their response on a nine-point scale (1 = Cancel to 9 = Keep) before moving to the next one. Finally, everyone indicated mood, self-esteem, and demographics.

Results and Discussion

As in study 2, we conducted the analyses by treating the two scenarios as a within-subject repeated measure. There were no within-subject interactions, so we report the estimated marginal means of the combined scenarios for ease of interpretation. See table 3 for means and standard errors for each scenario. Consistent with hypothesis 1B, the

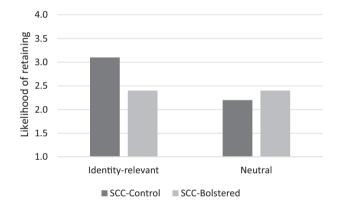
TABLE 3 RESULTS OF STUDY 3 LIKELIHOOD OF RETAINING UNUSED SUBSCRIPTION BY SCENARIO, AS A FUNCTION OF SCC CONDITION AND SUBSCRIPTION TYPE

	Identity-relevant		Neutral	
	SCC control	SCC bolstered	SCC control	SCC bolstered
Daily app Snack delivery Average	2.9 (.25) 3.3 (.26) 3.1 (.22)	2.4 (.29) 2.3 (.30) 2.4 (.26)	2.1 (.28) 2.3 (.29) 2.2 (.24)	2.1 (.24) 2.8 (.25) 2.4 (.21)

NOTE.—Average is a calculated variable. Standard errors are in parentheses.

RESULTS OF STUDY 3. AVERAGE LIKELIHOOD OF RETAINING AN UNUSED SUBSCRIPTION AS A FUNCTION OF SCC CONDITION AND SUBSCRIPTION TYPE

FIGURE 3



analysis vielded a significant interaction of the betweensubject factors, F(1, 209) = 4.26, p = .04; see figure 3. As a test of hypothesis 1A, a closer examination of the identity-relevant conditions indicated that bolstered-SCC participants were less likely to keep the subscriptions than control-SCC participants ($M_{\text{sccBolstered /identity-relevant}} = 2.4$, $SE = .26 \text{ vs. } M_{\text{sccControl/identity-relevant}} = 3.1, SE = .22, F(1,$ (209) = 4.52, p = .035, d = .41). Manipulating SCC did not affect whether participants retained the neutral subscriptions ($M_{\text{sccBolstered/neutral}} = 2.4$, SE = .21 vs. $M_{\text{sccControl/neu-}}$ $_{\text{tral}} = 2.2$, SE = .24, F(1, 209) = .59, p > .4), mood, or self-esteem (ps > .1).

These findings provide converging evidence consistent with hypothesis 1A, indicating that level of SCC affects the tendency to retain identity-relevant subscriptions. When people temporarily have higher, bolstered SCC, they are more likely to quit an unused, identity-relevant subscription than in the SCC-control condition. These results also support hypothesis 1B and show that the effect of self-concept structure on subscription retention is moderated by subscription type. Consistent with our theoretical framework, self-concept clarity affects preferences only among identity-relevant options, when the choice has the potential to affect the stability of the self-concept.

An open question is how SCC will affect preferences when the choice is whether to acquire, rather than retain, the equivalent subscription. Because choosing to acquire a novel subscription can signal an identity change, which also threatens the stability of the self-concept, we have proposed that the underlying motive to maintain one's selfconcept can result in starkly different choices when a decision is to acquire rather than to retain the subscription, even when the content of the choice (i.e., the item itself) is fixed.

STUDY 4: LOW SELF-CONCEPT CLARITY INCREASES SUBSCRIPTION RETENTION, BUT DECREASES SUBSCRIPTION ACQUISITION

Study 4 tests our proposed process by examining if low SCC increases the motivation to avoid any action that would signal an identity change (hypothesis 2A). Specifically, if low SCC consumers retain subscriptions to maintain a stable self-concept, then they should also avoid acquiring new subscriptions, which may also signal an identity change. Therefore we predict that consumers with low SCC are both more likely to retain and less likely to acquire the same identity-relevant subscription, compared to consumers with higher SCC. To test this hypothesis, we used the two magazine scenarios described in study 2. Study 4 also used a slightly different dependent measure. Instead of evaluating the products independently, participants chose between the identity-relevant and neutral products. Specifically, participants completed an SCC manipulation, then made a choice between the identityrelevant magazine subscription (The Economist) and the neutral magazine subscription (People). Between-subjects, the decision was either a retention choice (which subscription to keep) or an acquisition choice (which subscription to acquire). As a conceptual replication of the earlier findings, we expected that participants in the low SCC condition would be more likely to choose to retain the identityrelevant magazine subscription than those in the high SCC condition. However, we predicted that this pattern should reverse when the choice was instead which magazine to subscribe to. When deciding which subscription to acquire, choosing the identity-relevant option signals an identityexpanding action, which runs counter to the stability motivation of low SCC. As a result, we expect people in the low SCC condition to avoid acquisition of the identityrelevant subscription, compared to consumers in the high SCC condition. Thus, low SCC consumers should be more likely to retain, but also more reluctant to acquire, the same identity-relevant good, compared to high SCC consumers.

Method

Participants. Four hundred five people from MTurk completed the study ($M_{\rm age} = 38.1$). Due to a programming error, gender was not collected in this study.

Choice Scenarios. All participants chose between the two magazine subscriptions used in study 2, The Economist or People. Importantly, these options were constant in all conditions, but the choice was framed differently based on condition (retaining the subscription vs. acquiring a new subscription). Specifically, participants in the retention conditions read, "You currently have a digital subscription to these magazines: People and The Economist. You are considering canceling one of the subscriptions. The magazine subscriptions cost the same and there is no cost to cancel either one. Based on this information, which magazine subscription would you choose to KEEP?" In contrast, participants in the acquisition choice condition read, "You are online, searching for a new digital magazine to subscribe to. You see the following options: People magazine and The Economist. The magazine subscriptions cost the same. Based on this information, which magazine subscription are you most likely to BUY?"

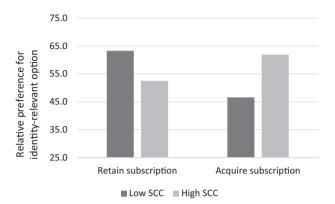
Procedure. The main experiment was a 2 (SCC: low vs. high) \times 2 (decision type: subscription retention vs. subscription acquisition) between-subjects design. Participants first completed the low versus high SCC manipulation task described in study 2 and then made either the retention or the subscription acquisition decision. We measured choice using a continuous scale with 1=People to 100=The Economist. Thus, higher numbers indicated greater preference for the identity-relevant subscription.

Results and Discussion

Confirming hypothesis 2A, the predicted interaction between SCC and choice type emerged, F(1, 401) = 10.7, p < .001; see figure 4. There were no main effects (ps >.35). Among participants who made a retention choice, those in the low SCC condition were more likely to retain the identity-relevant subscription than those in the high SCC condition ($M_{lowSCC/RetainSubscription} = 63.3$, SD = 39.1 vs. $M_{\text{highSCC/RetainSubscription}} = 52.5$, SD = 43.9, F(1, 401)= 3.68, p = .056, d = .27). However, we found the reverse effect for the acquisition choices. Specifically, participants in the low SCC condition were significantly less likely to subscription $(M_{lowSCC}/$ acquire the identity-relevant 46.6. SD 39.4 AcquireSubscription

FIGURE 4

RESULTS OF STUDY 4. RELATIVE PREFERENCE FOR IDENTITY-RELEVANT OPTION AS A FUNCTION OF SCC CONDITION AND CHOICE TYPE



 $M_{\text{highSCC/AcquireSubscription}} = 61.9$, SD = 37.6, F(1, 401) = 7.38, p = .007, d = .40).

These findings provide additional evidence for our proposed process, by showing that low SCC consumers avoid options that signal an identity change. Thus, low SCC makes people more likely to retain an identity-relevant subscription, but also more likely to avoid acquiring the same subscription, consistent with the proposal that the effect of low SCC on preferences is driven by the motivation to maintain a stable self-concept. In this manner we demonstrate how the structure of the self-concept interacts with the different types of subscription choices to affect preferences, independent of the symbolic content of the chosen options. Taken together, the studies thus far support the notion that SCC affects subscription preferences when the choice signals a change to one's identity, and can therefore affect the stability of the self-concept. Next, we explore the effect of SCC on one-shot product choice.

STUDY 5: THE EFFECT OF SELF-CONCEPT CLARITY ATTENUATES FOR A ONE-SHOT CHOICE

Study 5 examines a boundary to our predictions about the self-concept structure and choice. According to our theoretical framework, the effect of low SCC on subscription preferences is driven by the motivation to maintain a stable self-concept. Therefore, any subscription choice that signals a change in self-concept should be less appealing to consumers with low SCC. Accordingly, the effects of SCC on choice should attenuate when the decision does not signal a change to identity (hypothesis 2B). In study 5 we examine this prediction using three choices about the same

identity-relevant magazine: the choice to retain a subscription, the choice to acquire a new subscription, or a one-shot choice to buy a single issue of the magazine. For the first two choice types—to retain the subscription and to acquire the subscription—we expected to replicate the findings from study 4 showing that consumers with low SCC will be more likely to retain, but less likely to acquire, the subscription. However, because a one-shot choice about a single issue is a relatively weak signal, we expected the effect of SCC to attenuate for the decision to buy a single issue of the same magazine.

Method

Pretest. The identity-relevant subscription used in this study was selected using a pretest survey, which also allowed for a face-valid way to determine an identity-relevant subscription. We asked a group of participants drawn from the same population as the main study to nominate a magazine subscription that they considered identity-relevant. Participants (N = 351) were asked, "In the space below, please write the title of one magazine that would clearly represent a person's identity. That is, if you knew someone had this magazine, you would know a lot about the type of person they are, their goals and values, etc." After removing unambiguously gendered responses (i.e., Men's Health, Cosmopolitan), the most commonly nominated new magazine was National Geographic.

Main Study Participants. Three hundred fifty-eight people completed the main study in exchange for a small monetary payment ($M_{age} = 38.2, 48\%$ female).

Procedure and Choice Scenarios. Participants first completed the SCC manipulation described in study 2. Next, all participants made a choice about the same identity-relevant magazine, National Geographic. However, the choice type varied by condition (retain a current subscription, acquire a new subscription, a one-shot choice to buy a single issue). In the subscription retention condition they read, "You currently have a digital subscription to the magazine National Geographic. You don't use it much, and are considering canceling the subscription. Based on this information, how likely are you to keep (vs. cancel) the SUBSCRIPTION to National Geographic?" Response options were anchored with 1 ="I will definitely CANCEL MY SUBSCRIPTION" to 9 = "I will definitely KEEP MY SUBSCRIPTION." In the subscription acquisition condition, participants read, "You are online, searching for a digital magazine to buy a new subscription to. You find the magazine National Geographic. Based on this information, how likely are you to purchase a NEW SUBSCRIPTION to National Geographic?" and indicated their response on a scale with 1 ="I will definitely NOT BUY A NEW SUBSCRIPTION" to 9 = "I will definitely BUY A NEW SUBSCRIPTION." In the one-shot choice

condition, participants read, "You are online, searching for a digital magazine to read. You find that you can buy a single issue of the magazine *National Geographic*. Based on this information, how likely are you to purchase a SINGLE ISSUE of *National Geographic*?" and indicated their response on a scale with 1 = "I will definitely NOT BUY A SINGLE ISSUE" to 9 = "I will definitely BUY A SINGLE ISSUE."

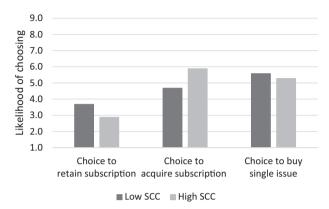
Results and Discussion

Study 5 was designed as a test of our proposed process and theoretical framework. Formally it tests hypothesis 2B, positing that any choice option that signals a change in identity is less appealing to low SCC consumers, but that self-concept structure should not affect a one-shot product choice, which is a relatively weak self-signal. An ANOVA testing the overall interaction between SCC condition and choice type was significant, F(2, 352) = 4.7, p = .009; see figure 5. As in study 4, relative to those in the high SCC conditions, consumers in the low SCC conditions were more likely to retain the *National Geographic* subscription, F(1, 352) = 2.9, p = .09, d = .31, and less likely to acquire the same subscription F(1, 352) = 6.2, p = .01, d = .47. However, SCC does not affect the one-shot product choice F(1, 352) = .44, p > .5. This pattern shows converging evidence of hypothesis 2A and further supports the notion that low SCC motivates people to avoid any choice that signals identity change and therefore threatens the stability of the self-concept.

We conducted an additional analysis to formally test hypothesis 2B and examine if the effect of SCC attenuates when the choice does not threaten the stability of the selfconcept. First, we reverse-coded the dependent variable for the "retain" choice, so that higher numbers indicate a preference for the option that signaled an identity change across choices. Thus, higher numbers indicate the choice to quit a subscription in the retention choice condition, the choice to acquire a new subscription in the acquisition choice condition, and the choice to buy a single issue in the one-shot choice condition. Next, we created a dummy variable for choice type, with 0 = a subscription choice that signals identity change, and 1 = a one-shot choice that does not signal identity change. Finally, we conducted a twoway ANOVA, with SCC condition and choice type dummy as the independent variables, to test if the effect of SCC on choice is moderated by whether the choice signals identity change versus not (i.e., is a one-shot product choice). As predicted, this interaction was significant, F(1, 354) =6.05, p = .01. Looking only at subscription choices, low SCC reduced preferences for the option that signaled identity change ($M_{\text{lowSCC/IdentityChange}} = 5.4$, SD = 2.7 vs. $M_{\text{highSCC/IdentityChange}} = 6.5$, SD = 2.5, F(1, 354) = 11.04, p = .001, d = .43), but SCC again did not affect preferences for the same magazine when the choice was instead

FIGURE 5

RESULTS OF STUDY 5. LIKELIHOOD OF CHOOSING IDENTITY-CHANGING OPTION AS A FUNCTION OF SCC CONDITION AND CHOICE TYPE



about a single issue ($M_{\text{lowSCC/OneShotChoice}} = 5.6$, SD = 2.5 vs. $M_{\text{highSCC/OneShotChoice}} = 5.3$, SD = 2.4, F(1, 354) = .42, p > .5).

These findings support our final hypothesis that the effect of self-concept structure on choice is moderated by whether the choice is a signal of identity change (hypothesis 2B). When the choice is a weaker signal in the form of a one-shot choice to acquire a single issue, the relationship between SCC and choice attenuates. In doing so, study 5 offers additional evidence that the effect of low SCC is driven by the motivation to maintain a stable self-concept.

STUDY 6: DEMONSTRATING THE EFFECT OF SELF-CONCEPT CLARITY ON SUBSCRIPTION RETENTION PREFERENCES USING AN INCENTIVE-COMPATIBLE PRICE ELICITATION MECHANISM

In study 6 we sought to test our central proposal (hypothesis 1A) using an incentive-compatible measure of retention preferences (Inman et al. 2018). We recruited participants who reported having one of the identity-relevant subscriptions identified in study 1. After indicating which specific subscription they have, participants were randomly assigned to either the high or low SCC condition and completed the manipulation used in previous studies. Finally, we elicited the minimum price consumers were willing to accept (WTA) to forfeit their current subscription, using a modified BDM mechanism (Becker, DeGroot, and Marschak 1964; Bohm, Lindén, and Sonnegård 1997). We expected that because low SCC

consumers are motivated to retain their unused identityrelevant subscriptions, participants in the low SCC condition would demand higher prices to forfeit their subscription than those in the high SCC condition.

Method

We recruited 404 people from MTurk (208 males, $M_{\rm age}$ = 37.8). On the first screen participants read that in this study they might be asked to choose between a good they have and a price they would accept to give up that good, and that this choice would be "real" for some participants. On the next screen we asked if they currently had any of the five identity-relevant subscriptions, memberships, or apps used in study 1. The wording of the question prompt and response options was drawn directly from study 1, but in this study participants could choose only one of the subscription options, or they could indicate they did not have any of them. Everyone who had one of the identityrelevant options was then asked the name of their specific subscription. They also indicated how often they use their subscription. Participants who did not have one of the identity-relevant subscriptions, or who responded that they regularly use their subscription (more than once a month), were excluded from further analysis.

Next, in an ostensibly unrelated study participants completed the SCC manipulation used in studies 2, 4 and 5. To ensure that everyone understood the consequential nature of the dependent variable, participants read a short description of the BDM procedure and completed a comprehension check. Finally, everyone was shown the name of the subscription they had entered and asked if they would choose to keep or quit their subscription for a list of prices between \$0.00 and \$2.00, presented in 10 cent intervals. Those who indicated they would demand more than \$2.00 to quit the subscription were asked what price they would accept using an open-ended text box on a subsequent screen. At the conclusion of the study a random price point was selected, and five participants received their chosen option at that price point.

Results and Discussion

This procedure yielded an incentive-compatible WTA measure for 110 participants (53 males, $M_{age}=38.3$). We predicted that participants in the low SCC condition would demand a higher price to forfeit their own identity-relevant, unused subscription, compared to those in the high SCC condition. A Mann-Whitney test indicated that, as expected, participants in the low SCC condition demanded more to quit their subscription than participants in the high SCC condition, $Mdn_{\rm LowSCC}=\$10.00$, $Mdn_{\rm HighSCC}=\$1.50$, U=888.5, p=.03, d=.46. To further ensure this pattern is robust to outliers we conducted two additional tests. A one-way ANOVA on the

Winsorized WTA yielded a significant effect, F(1, 96) = 5.5, p = .021, d = .48, as did an ANOVA on the log-transformed WTA, F(1, 96) = 4.81, p = .031, d = .44. Results were also similar in a regression analysis that controls for self-esteem (p = .017), and self-esteem had no effect on WTA (p > .6). These data provide evidence consistent with our central hypothesis. Using an incentive-compatible dependent variable, we find that low SCC increases consumers' motivation to retain their unused, identity-relevant subscriptions, even when they would be paid to forfeit that subscription.

GENERAL DISCUSSION

Subscription commerce is a large and growing market segment for many products. A choice that consumers often face in this context is whether to keep or cancel a subscription service. Academic research, introspection, and widespread media coverage all suggest that consumers often continue to pay for subscriptions and services that they do not use (Lieber 2016). However, relatively little consumer research has directly examined the psychological factors that underlie this type of consumption decision. We demonstrate that the structure of the consumer's self-concept systematically affects subscription choices. Across six studies we find that consumers with low SCC are more likely to retain identity-relevant subscriptions compared to those with high SCC. This finding emerges for selfreported subscription ownership (study 1), when we experimentally manipulate SCC in controlled experimental settings (studies 2-5), and when we use an incentivecompatible price-elicitation mechanism to capture retention preferences (study 6). However, this pattern reverses for the decision to acquire the same subscription, and consumers with low SCC are instead less likely to sign up for a new identity-relevant option. We explain these findings based on the notion that low SCC increases a consumer's motivation to maintain the stability of their self-concept. Canceling a current subscription or signing up for a new subscription are both signals of a change in identity that threaten the stability of the self-concept. As a result, low SCC consumers are motivated to retain, but reluctant to acquire, the same subscription. We provide further evidence of this theoretical framework by identifying conditions when the choice will not signal identity change and threaten the self. Specifically, we find that the effect of SCC attenuates when the choice is not a threat to the stability of one's self-concept because (1) the underlying good is not relevant to the consumer's identity (studies 1-3) or (2) the choice is a weak identity signal (study 5).

In addition to offering evidence in support of the theoretical framework, the current data also allow us to rule out several alternate accounts for the results. First, one possible explanation for the observed pattern is that low SCC

consumers are, in general, less decisive and therefore less willing to make the choice to quit a subscription. Such an account would predict that consumers with low SCC should be more likely to keep both identity-relevant and neutral subscriptions, a pattern that is inconsistent with our data. A second alternative account is that these effects are not driven by the structure of the self-concept, but are instead driven by self-esteem, a known correlate of SCC (Baumgardner 1990; Campbell et al. 1996). However, past research has found that self-concept clarity is independent from self-esteem (Campbell et al. 1996) with distinct effects (Mittal 2015; Setterlund and Niedenthal 1993). In the current data we have several reasons to believe that SCC, and not self-esteem, explains our findings. First, in study 1 the predicted negative effects of SCC on subscription retention obtain when self-esteem is included in the regression analyses, and in fact self-esteem emerges as a positive correlate of identity-relevant subscriptions. This is reassuring evidence of a theoretical distinction between SCC and self-esteem, and increases our confidence in the independent nature of the constructs. Although it is beyond the scope of this article to determine the cause for this positive relationship in this correlational survey data, we speculate that it may have to do with differences in beliefs about the future utility of the subscription. For example, consistent with the idea that self-esteem facilitates persistence after an initial failure (Baumeister et al. 2003), it may be that people with higher self-esteem think they might someday use a subscription, even if they currently do not. Importantly, across the remaining studies, we confirmed that our manipulations of SCC do not significantly impact self-esteem, and when we include self-esteem as a covariate in the analyses the results are not affected. While the current data are most consistent with an account based on the structure of the self-concept and do not support an alternative self-esteem explanation, future research could further investigate the specific, distinct role of self-esteem in driving retention for subscription choices.

IMPLICATIONS, LIMITATIONS, AND FUTURE RESEARCH

Our findings contribute to the literature on identity motives for consumer choice in several ways. First, existing research on compensatory consumption has primarily focused on how domain-specific self-discrepancies increase preferences for within-domain actions and products that can affirm the threatened trait. In addition, most demonstrations of compensatory consumption involve acquisition choices for material products. We extend these findings by providing evidence that a more general threat to the stability of the self-concept structure can affect preferences across a range of identity-relevant goods from different domains. Moreover, we demonstrate this domain-

fluid compensatory response using retention choices, and with nonmaterial goods (i.e., subscription services).

The current research also extends the literature on self-signaling. Extant work on self-signaling has primarily focused on choices that are diagnostic about a specific desirable trait, such as one's level of altruism or moral character. The current findings suggest that people's choices can also signal about structural elements, such as stability of the self-concept. Future research could investigate if people will make choices that signal about other aspects of the self-structure, such as self-complexity (Linville 1985, 1987) or compartmentalization (Showers 1992). For example, consumers who are motivated to seek more overlap between their identities may be more likely to choose options that signal consistent self-aspects, whereas consumers motivated to compartmentalize may be more likely to signal distinct self-aspects.

Some limitations of the present research suggest promising areas for future inquiry. For example, the current experiments focus on choices made in private, with limited potential to signal to other people, which allowed us to identify the role of identity-signaling to oneself (i.e., selfsignaling) and control inferences about identity-signaling to others (i.e., social-signaling). Naturally, an open question is if and how our effects might differ if the choices were instead publicly observable. It is possible that the addition of an external audience would simply strengthen the observed effects, consistent with the finding that an external audience can amplify a compensatory consumption response (Dubois, Rucker, and Galinsky 2012). On the other hand, when an external audience is more salient, additional considerations such as self-presentation motives may be more salient and impact one's choices. For example, the need to be perceived by other people in a positive manner could cause low SCC consumers to decide to acquire a positive identity-relevant subscription, even if doing so would reduce their self-concept stability. Future research could extend the current findings into the area of public choices and explore the interplay of conflicting desires for stability and self-presentation motives.

Another feature of the current research is that our experiments examined decisions about identity-relevant subscriptions that signal desirable identities and traits. However, we did not explore how SCC would affect retention choices for goods that are also highly expressive, but related to less-desirable identity traits, such as a "front of the line" pass at an unhealthy buffet restaurant or a subscription to a taboo lifestyle magazine. Future research could examine whether the desire to maintain a stable self-concept would lead to the same pattern of results for goods that express a less positive identity.

Finally, while our research focuses on how self-concept structure affects the choices people make, one could also investigate how SCC affects other behaviors, such as goal pursuit. Low SCC consumers are driven to maintain the stability of the self-concept. This may lead to greater persistence on a task when failure would signal an identity change that might threaten the stability of the self-concept. For example, if the pursuit of a goal is relevant to a valued identity, low SCC participants may be more likely to persist on the task, compared to those with high SCC, because people with low SCC are more motivated to avoid the potential identity change that might be signaled by failure. Future research may investigate what other types of behaviors can be influenced by the motivation to maintain a stable self-concept.

Several managerial implications follow from our findings. Since the motivation to maintain one's self-concept can lead people to choose to continue to pay for items even when the consumption value has diminished, managers may want to highlight those considerations in their communication strategies. An emphasis on self-image considerations for current customers may be sufficient to increase people's likelihood of choosing to continue subscribing. Managers could also seek to identify situations when consumers are likely to have particularly low self-concept clarity and target renewal reminder messages around that time. For example, messages that affirm a stable self-concept may be particularly persuasive during windows of change—such as graduations, wedding planning, preparing for retirement, or even a mile-stone birthday, when people are uncertain about their identity.

Our results show that consumers with low SCC are motivated by the potential identity-signaling effects of their choices, and thus they may be an appealing target segment for some marketers. While low SCC consumers may be less likely to initially subscribe to a service, it may be worthwhile for managers to provide deep discounts to acquire these customers, as they are unlikely to subsequently cancel. However, identifying consumers with low SCC would require that additional proxies are developed, such as knowledge of life events or other demographic correlates to SCC. As an alternative, our theoretical framework suggests that marketers should be able to affect preferences by using subtle methods to increase the salience of the potential identity-signaling effects of a choice. For example, marketers may be able to increase the degree to which a retention choice is seen as relevant to a consumer's selfconcept stability by increasing the salience of the self at the time of the choice. We explored this direction by testing if the well-known self-awareness prime of signing one's name (Kettle and Häubl 2011) can increase the choice to retain a gym membership. A group of undergraduates imagined that they had a health club membership that they did not use. Between-subjects, we varied the method of quitting: in the self-awareness condition students had to sign their name to quit, whereas in the control they wrote, "cancel the membership." Significantly more students chose to retain the membership in the signing condition $(P_{\text{self-awareness}} = 25\%)$ than in the control $(P_{\text{control}} = 11\%,$

 $X^2(1, N=173) = 5.2, p = .02, d = .35$). Marketers could use similar tactics to highlight the identity relevance of a choice and, through this process, increase retention.

Our findings may also have implications for consumer welfare. People today subscribe to an increasing number of subscription services and often find themselves with at least a few subscriptions that they pay for but rarely use. This can cost households thousands of dollars each year and certainly harms overall consumer well-being (Williams 2017b, 2017a). Policy makers that aim to help consumers reduce unused subscriptions face a daunting task. Simply making it easier to cancel a service is not sufficient, as this does not take into account the effect of canceling on consumers' self-concept. Instead, policy makers could craft messages designed to suppress the identity relevance of a subscription. Alternatively, the results of study 3 indicate that consumers may be able to temporarily increase their own self-concept clarity by thinking about an especially self-expressive possession, which can provide the additional psychological resources needed to cancel unused subscriptions.

In summary, the findings presented here allow us to better understand how structural properties of the self-concept systematically affect consumer preferences for subscriptions, even when the symbolic content of a choice is fixed (i.e., the item considered is held constant). Six studies demonstrate that compared to consumers with high self-concept clarity, those with low self-concept clarity are motivated to avoid options that signal an identity change that may threaten the stability of their self-concept. Surprisingly, this motivation to maintain a stable self-concept means that low SCC consumers are more likely to retain, but less likely to acquire, an identical subscription service. These findings suggest a number of potential applications for subscription commerce and beyond.

DATA COLLECTION INFORMATION

The first author supervised a lab manager at the Yale SOM Behavioral Laboratory for the collection of data for study 3. Study 2 data was collected by the first author using participants from the Yale School of Management's proprietary subject pool. Studies 1 and 4–6 used participants recruited from MTurk. Data was collected from 2014 to 2019. For all studies, the first author analyzed the data in consultation with the second author.

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