Web Appendix 1. Participant Screening Rules

We note that in all our experiments we used two or three attention filters (i.e., following manipulation instructions, debrief questions, product ownership status questions). Participants were screened out based on the following rules: (1) they spent less than 1 minute on a manipulation task that asked them to spend a minimum of 3 minutes, (2) they predicted the study purpose in the debriefing questions at the end of an experiment, or (3) they did not follow task instructions, either because they did not own the product used in the experiment or because they did not want to imagine owning certain products despite the manipulation instruction to do so. Sample sizes were dictated by the availability of participants in the behavioral lab sessions and with reference to prior research that has used similar study designs (Fitzsimons, Chartrand, and Fitzsimons 2008; Park and John 2014; Weiss and Johar 2016).

Prescreening Results by Experiment

	Total N	Retained N	Excluded number of participants by condition			
			Irrelevant task conditon		Relevant task condition	
			ownership	no-ownership	ownership	no-ownership
Experiment 1A	95	93			1	2
Experiment 1B	102	95	2	5		
Experiment 1C	105	102	2	1		
Experiment 2	206	187	9	5	3	2
Experiment 3	113	104	2	3	2	2
Experiment 4	177	174	2	0	1	0
Experiment 5	400	383	2	7	6	2

NOTE.— We collapsed across self-concept clarity conditions in Experiment 5, and simply report (ownership vs. baseline) × (task: relevant vs. irrelevant) conditions for brevity.

Web Appendix 2. Ikea catalogue (Experiment 1A, 1C)

Brochure 2-A

HEMNES Mirror

Brochure 2-B

KNARRA Basket

Brochure 2-C

BEKVÄM Stepladder, 3 steps

Brochure 2-D

ÅRSTID Wall lamp

Brochure 2-E

AINA Curtains, 1 pair

Brochure 2-F

SOCKERÄRT Vase

Web Appendix 3. Pantry Item Shopping Task (Experiment 1B, 1C)

1.

Toothpaste

$6.99 (for 3 toothpastes)

$4.25 (for 2 toothpastes)

2.

Toilet Tissue

$20.84 (for 40 rolls)

$6.99 (for 12 rolls)

Web Appendix 4 (Experiment 2)

Web Appendix 4A. Psychological Ownership Manipulation

We elicited feelings of psychological ownership over a calculator (related to math skills but unrelated to creative writing skills). Adopting an ownership manipulation from prior research (Peck and Shu 2009), MTurk participants (N = 92; 38% male, M_{age} = 35.11, SD = 12.44) were randomly assigned to either the ownership or the baseline condition. In the ownership condition, participants saw a standard calculator and were asked to imagine bringing the calculator home, and described where they would put the calculator at home and how they would use it. Participants in the baseline condition saw the same calculator and were asked to write down the names of stores that would carry the calculator, and in which section of the store they would find the calculator. In both conditions, participants were asked to spend a minimum of 3 minutes on the task. Next, all participants responded to the "Part-of-Self" question ("To what extent do you believe that your [math skill] is a part of your own self?" 1: not part-of-my-own-self, 7: part-of-my-own self; Weiss and Johar 2013, 2016). Additionally, to further validate our manipulation, participants responded to the modified Inclusion of Others in the Self scale (IOS scale; Aron, Aron, and Smollan 1992); "To what extent do you believe that there is an overlap between yourself and [math skills]?". Participants selected one of seven overlapping circles that differed in the degree of overlap for each identity. Finally, they responded to three ownership manipulation check questions from Peck and Shu (2009): (1) I feel like this is my calculator, (2) I feel a very high degree of ownership of this calculator, (3) I feel like I own this calculator (1: strongly disagree, 7: strongly agree; α = .97).

As expected, participants in the ownership condition believed math skills were a part of the self more than participants in the baseline condition ($M_{ownership}$ = 5.12, SD = 1.90 vs. $M_{baseline}$

= 4.16, SD = 1.79; F(1, 91) = 6.24, p = .014). A similar pattern of results was observed on both the IOS scale ($M_{ownership}$ = 4.56, SD = 1.71 vs. $M_{baseline}$ = 3.59, SD = 1.73; F(1, 91) = 7.32, p = .008), and the Peck and Shu manipulation check questions ($M_{ownership}$ = 4.13, SD = 1.82 vs. $M_{baseline}$ = 3.22, SD = 1.90; F(1, 91) = 5.47, p = .022).

Web Appendix 4B. Quiz Label Pretest

Among different skill sets, creative writing was perceived as being most negatively correlated with math skills (M = -2.23 on a -10 to 10 point scale), and was also perceived to be moderately important ($M_{creative\text{-}writing}$ = 5.06 in a 1 to 10 point scale). We therefore used "creative writing" as the product-unrelated quiz label in the main experiment (the negative correlation requirement is relaxed in later experiments).

Web Appendix 5 (Experiment 3)

Web Appendix 5A. Ownership Manipulation Pretest

To test the ownership manipulation, forty MTurk participants (40.0% male, M_{age} = 32.69, SD = 9.73) were assigned to either the calculator ownership or the baseline condition. In both conditions, participants were asked to spend at least 3 minutes to describe how they would locate a calculator program on a computer desktop. The only difference between the two conditions was that participants described the location of the calculator program on their personal computer (*ownership* condition), or on a typical public library computer (*baseline* condition). After the task, we asked: "To what extent do you believe that your math skill-set is part of your own self?" (1: not part-of-my-own self, 7: part-of-my-own-self; Weiss and Johar 2013, 2016). As expected,

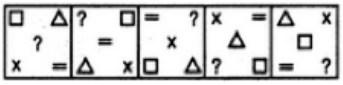
participants in the ownership (vs. baseline) condition believed that the math skill-set was an important part-of-the-self ($M_{ownership}$ = 5.52 vs. $M_{baseline}$ = 4.42; F(1, 38) = 4.12, p = .049). The amount of time participants spent on the manipulation task did not differ (F < 1), and their perception of the quality of the described calculator did not significantly differ (F < 1).

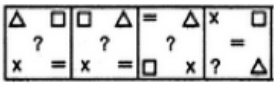
Web Appendix 5B. Quiz Label Pretest

We used a calculator as the stimulus product category in the main experiment and tasks labeled as tests of math (product-related) versus visual sensitivity (product-unrelated). Visual sensitivity skills were perceived to be unrelated to math skills (M = .30 in a -10 to +10 scale) and perceived to be moderately important ($M_{visual\ sensitivity}$ = 5.44 in a 1 to 10 point scale). Math skill was perceived to be moderately important to one's identity (M_{math} = 4.58 on a 1 to 10 point-scale), suggesting that the math identity could be activated within the experiment (i.e., the math identity is not likely to be chronically activated).

Web Appendix 6. Quiz Content (Experiment 3, 4)

1. Select a figure from the four alternatives that would complete the figure matrix.





(a) (b) (c) (d)

- (a)
- (b)
- (c)
- (d)

Web Appendix 7. Self-Concept Clarity Manipulation (Experiment 5)

There are times when you have [don't have] a clear and consistent sense of who you really are, when you feel like you [don't] truly know what you are like. You have consistent [conflicting] views about yourself that do not change over time [shift from day to day]. For example, you may have felt clear [conflicted] and sure [unsure] about particular traits or aspects of yourself or been in a situation that displayed that you had a clear [conflicting] sense of yourself.

Please take a few minutes to recall and immerse yourself in a time when you felt that you had [didn't have] a clear and consistent view of who you really were. Please describe this in as much detail as possible – what happened, how you felt, etc.
(Rozenkrants, Wheeler, and Shiv 2017)

Self-concept Clarity Manipulation Pretest. To test whether self-concept clarity manipulation worked as intended, eighty-five MTurk participants were randomly assigned to either the high or low self-concept clarity condition, and were asked to recall a past incident where they had a clear (vs. unclear) and consistent (vs. inconsistent) understanding of who they were. After the manipulation, all participants responded to the self-concept clarity measure (Campbell et al. 1996). Attesting to the success of the manipulation, participants in the high (vs. low) self-concept clarity condition perceived themselves to have a more clear sense of their self-concept ($M_{\text{high self-concept clarity}} = 3.77$, $SD = .86$ vs. $M_{\text{low self-concept clarity}} = 3.28$, $SD = 1.04$; $F(1, 83) = 5.39$, $p = .023$).

Self-concept Clarity × *Ownership Pretest* . This pretest was run to provide evidence that the link between ownership and identity (de)activation is moderated by self-concept clarity. Participants in the low (but not high) self-concept clarity condition are likely to have their product-related identity activated when exposed to the product ownership manipulation. MTurk participants were assigned to one of 4 conditions in a 2 (self-concept clarity: high vs. low) × 2 (psychological ownership: ownership vs. baseline) between-subjects design. We first manipulated self-concept clarity by asking participants to recall a past incident where they had a clear (vs. unclear) and consistent (vs. inconsistent) understanding of who they were (Rozenkrants, Wheeler, and Shiv 2017). Next, participants responded to a second unrelated study to manipulate feelings of ownership over a calculator, identical to that in Experiment 2 (Peck and Shu 2009). The last part of the study included the part-of-self measure for their math-selves. Analysis revealed a significant interaction between self-concept clarity and ownership ($F(1, 168) = 4.52$, $p = .035$). Supporting our prediction, in the low self-concept clarity condition, participants in the ownership condition perceived math skills to be a part of themselves more than those in the baseline condition ($M_{ownership} = 4.33$, $SD = 1.84$ vs. $M_{baseline} = 3.18$, $SD = 1.67$, $F(1, 168) = 8.72$, $p = .004$). In contrast, there were no differences within the high self-concept clarity condition ($M_{ownership} = 4.14$, $SD = 1.90$ vs. $M_{baseline} = 4.14$, $SD = 1.87$, $F < 1$).

Web Appendix 8

(Refer to List of Follow-up Experiments in Table 1)

Follow-up Experiment I

Methods

Pretest: Ownership manipulation. To test the ownership manipulation, forty MTurk participants were assigned to either the calculator ownership or the baseline condition. In both conditions, participants were asked to spend at least 3 minutes to describe how they would locate a calculator program on a computer desktop. The only difference between the two conditions was that participants described the location of the calculator program on their personal computer (*ownership* condition), or on a typical public library computer (*baseline* condition). After the task, we asked: "To what extent do you believe that your math skill-set is part of your own self?" (1: not part-of-my-own self, 7: part-of-my-own-self) (Weiss and Johar 2013, 2016). As expected, participants in the ownership (vs. baseline) condition believed that the math skill-set was an important part-of-the-self ($M_{ownership}$ = 5.52 vs. $M_{baseline}$ = 4.42; $F(1, 38) = 4.12$, $p = .049$). The amount of time participants spent on the manipulation task did not differ ($F < 1$), and their perception of the quality of the described calculator did not significantly differ ($F < 1$).

Procedure for the main experiment. Ninety MTurk participants first engaged in the same "computer software" study described above. In the second ostensibly unrelated task, all participants responded to a "sentence completion task" where they had to fill in 20 sentences beginning with the stem, "I am good at _____." This 20-statement task (Kuhn and McPartland 1954; Weiss and Johar 2016) was used to measure the activation of different identities. Upon

completing the sentence completion task, they were shown their 20 statements and were asked to code whether each skill set was related to the math skill set or non-math skill set. The proportion of math-related sentences served as our dependent variable.

Results and Discussion

As expected, participants in the ownership condition generated a greater proportion of math-related skills ($M_{ownership}$ = 27.68%, SD = .27) than participants in the baseline condition ($M_{baseline}$ = 18.42%, SD = .13; F(1, 88) = 4.38, p = .039, d = .41). Thus, feelings of ownership over a calculator lead to greater activation of math identity and inversely, lower activation of other math-unrelated identities.

Follow-up Experiment II

If participants' feelings of ownership over a calculator activate their math identity, they should be better at accessing product-related content (e.g., math content) compared to those whose feelings of calculator ownership are not made salient.

Methods

MTurk participants (N = 55) completed the identical ownership manipulation (*personal vs. public library computer*) described above. Next, they engaged in a word completion task that is commonly used to measure implicit content accessibility in the self-identity literature (Johnson and Lord 2010; Knowles and Gardner 2008; Vargas, Sekaquaptewa, and von Hippel 2007). Specifically, we asked participants to complete 10 word fragments (e.g., ze[ro/st], div[ide/ine], nu[mber/gget], pl[us/an], min[us/ce]) as quickly as possible. For example, upon seeing "ZE_ _", participants would fill in the blank to create a meaningful word, and could complete it as

"ZERO"(math-related) or "ZEST" (math-unrelated). The amount of time participants spent on the task did not differ across the conditions ($F < 1$). The number of math-related words that participants generated served as a dependent variable.

Results and Discussion

As expected, participants in the ownership condition generated more math-related words than those in the baseline condition ($M_{ownership} = 5.37$, $SD = 1.81$ vs. $M_{baseline} = 4.36$, $SD = 1.70$; $F(1, 53) = 6.76$, $p = .012$, $d = .58$), suggesting that ownership salience of a calculator activated participants' math identity.

Follow-up Experiment III

This experiment demonstrates that in addition to activating product-related identity, salience of product ownership simultaneously deactivates product-unrelated identity.

Methods

The study employed a 2 (ownership: ownership vs. baseline) × 2 (math identity vs. art identity) between-subjects design. First, participants (N = 197) engaged in a "computer software" study, manipulating calculator ownership as in the previous experiments. In the second supposedly unrelated "Response Task," participants were asked to list reasons why it was important for them to be good at math (vs. art; between-subjects), and were given 45 seconds to come up with as many self-identity associations as possible. This method has been successfully used in prior literature to examine accessibility of different identities in one's mind (Chugani, Irwin, and Redden 2015). The number of reasons served as a measure of accessibility of math- and art-related identity.

Results and Discussion

As expected, participants in the ownership (vs. baseline) condition generated fewer reasons for why art was important to them, suggesting relative deactivation of the art identity ($M_{ownership}$ = 4.06, SD = 1.79 vs. $M_{baseline}$ = 4.78, SD = 1.37; F(1, 193) = 4.63, p = .033, d = .45). In contrast, participants in the ownership (vs. baseline) condition generated more reasons why math was important to them, suggesting relative activation of the math identity ($M_{ownership}$ = 4.88, SD = 1.79 vs. $M_{baseline}$ = 4.14, SD = 1.65; F(1, 193) = 6.23, p = .013, d = .43). Additional analysis revealed that participants within the ownership condition generated significantly more reasons for why math (vs. art) identity was important to them (p = .029). In contrast, participants within the baseline condition generated marginally more reasons for why art (vs. math) was important to them (p = .063).

Follow-up Experiment IV

The goal of this experiment is to test the hypothesis that shopping for athletic products leads to activation of the athletic identity and deactivation of an unrelated identity, namely the creative-writing identity.

Methods

Under the guise of a marketing study, 95 students who were members of the university's behavioral lab, shopped for athletic products online on a fictitious website created for Dick's Sporting Goods. A number of items were displayed including sports towels, duffle bags, caps, and sports bottles. Participants assigned to the ownership condition were asked to choose four products that they would like to own for themselves whereas participants assigned to the baseline

condition were asked to choose four products that would be particularly popular among high school students. After choosing four products, all participants briefly described the reasons behind their choices, to maintain the cover story. There were no differences in how much time participants spent in the shopping task ($F < 1$).

In an ostensibly unrelated study, participants responded to a modified version of the "Inclusion of Others in the Self" scale (Aron, Aron, and Smollan 1992) to measure activation of the two different identities (e.g., "To what extent do you believe that there is an overlap between yourself and [athletic/creative writing] skills?"). Participants selected one of seven overlapping circles that differed in the degree of overlap for each identity.

Results and Discussion

As expected, participants in the ownership condition showed greater activation of their athletic selves compared to those in the baseline conditions ($M_{ownership} = 4.53$, $SD = 1.52$ vs. $M_{baseline} = 3.92$, $SD = 1.50$; $F(1, 93) = 3.93$, $p = .050$, $d = .40$). In support of the deactivation hypothesis, participants in the ownership condition also displayed deactivation of their creative writing identity, compared to those in the baseline condition ($M_{ownership} = 4.02$, $SD = 1.37$ vs. $M_{baseline} = 4.68$, $SD = 1.58$; $F(1, 93) = 4.63$, $p = .034$, $d = .45$).

Follow-up Experiment V

The goal of this experiment is to use the IKEA shopping manipulation to replicate our findings on identity (de)activation using an Inclusion of Others in the Self scale (Aron, Aron, and Smollan 1992).

Methods

We used an IKEA catalog-shopping task to activate the art identity. Ikea is well known for its home décor products inspiring consumers to artistically decorate their living areas, and should therefore activate the art identity. Ninety-nine MTurk participants were randomly assigned to either the ownership or the baseline condition. All participants browsed an online IKEA catalog with three images that showed a list of furniture and other items. Depending on their condition, participants were asked to identify five furniture/items that they would like to own (*ownership* condition) or five furniture/items that they thought would be suitable for senior citizen homes (*baseline* condition). All participants then spent at least three minutes to describe why they had chosen the products. There were no differences in the amount of time participants spent on the shopping task across the two conditions ($F < 1$).

Participants then moved on to an ostensibly unrelated study where they responded to the modified Inclusion-of-Others-in the Self scale (Aron, Aron, and Smollan 1992), for art and math skills.

Results and Discussion

Results were consistent with expectations. Shopping for participants' own (vs. senior) homes activated participants' art identity ($M_{ownership} = 5.04$, $SD = 1.53$ vs. $M_{baseline} = 4.29$, $SD = 1.85$; $F(1, 97) = 4.78$, $p = .031$, $d = .45$) and deactivated their math identity ($M_{ownership} = 3.65$, $SD = 1.92$ vs. $M_{baseline} = 4.37$, $SD = 1.64$; $F(1, 97) = 4.13$, $p = .045$, $d = .40$).

Follow-up Experiment VI. Measuring Self-concept Clarity

Methods

We used earphones as the stimulus product category and performance on an anagram task as the dependent variable. By using music-related words for the anagram task, the task can plausibly be labeled as measuring people's music comprehension skills (earphones *product-related* task) or creative writing skills (earphones *product-unrelated* task). We used a different ownership manipulation in this study.

Pretest. Ninety-two MTurk participants (50.0% male, M_{age} = 33.45, SD = 10.07) were randomly assigned to either the ownership or the basline condition. Participants in the ownership condition described what earphones/headphones (hereafter, earphones) they owned and their usage experience with their earphones while those in the baseline condition described how they used a notepad to keep track of things in life and the kinds of things (e.g., grocery list) that they wrote down on their notepad. All participants were asked to spend a minimum of 3 minutes on the task. To verify that the earphones ownership manipulation activated music identity, participants responded to a Part-of-Self question on their music comprehension skills. As expected, participants in the ownership condition perceived music comprehension skills as being more a part of their self compared to those in the baseline condition (POS score: $M_{ownership}$ = 4.83 vs. $M_{baseline}$ = 4.02; F(1, 120) = 36, p = .040).

As desired, music comprehension skills and creative writing skills were perceived to be unrelated (N = 50; M = 1.19 on a -10 to 10 point scale) and moderately important ($M_{music\text{-}comprehension}$ = 4.23, $M_{creative\text{-}writing}$ = 5.06 in a 1 to 10 point-scale).

Methods. A total of 194 MTurk participants (44.0% male, M_{age} = 35.42, SD = 11.42) were randomly assigned to one of the conditions in a 2 (ownership: ownership vs. baseline) × 2 (quiz label relevance: related vs. unrelated) between-subjects design and self-concept clarity was measured as a third factor. Participants either described their earphones (*ownership* condition) or a notepad (*baseline* condition) for at least three minutes. Next, in an ostensibly unrelated second study, participants were randomly assigned to either the music comprehension assessment or the creative writing skills assessment task. The tasks were identical and only the task label differed between conditions. After reading the instructions, all participants solved the same ten anagram questions (e.g., score, octave, tune) that could be perceived as measuring creative writing or music comprehension. Each anagram was shown on the screen separately, and participants moved on to the next screen at their own pace. After responding to the anagram questions, participants rated their levels of effort and involvement and the perceived difficulty of the quiz. Finally, all participants responded to a few filler questions, followed by the self-concept clarity measure (Campbell et al. 1996), some demographics and debriefing questions.

Results and Discussion

There were no significant differences in participants' self-reported levels of effort, involvement and perceived quiz difficulty. Participants were generally engaged in the task (M_{effort} = 6.31; $M_{involvement}$ = 6.30 on a 7-point scale). The anagram task was perceived as moderately difficult ($M_{difficult}$ =5.09 on a 7-point scale). Overall, these results demonstrate that participants' performance was not consciously driven by the goal of doing worse on a product-unrelated (vs. product-related) task.

Quiz performance. We expected to replicate previous results for participants who have a less clear self-concept such that they perform worse on a task labeled as product-unrelated (vs.

product-related). We expected the effect to be attenuated among participants who had a clear, well-defined self-concept. The mean self-concept clarity score was 3.62 (SD = 1.00). We followed the guidelines of Spiller et al (2013) for the analysis. First, we ran a regression analysis using ownership (-1 = baseline, 1 = ownership), quiz (-1 = product-unrelated label, 1 = product-related label), self-concept clarity and their two-way interactions and three-way interactions as predictors and the anagram score as the dependent variable. Results revealed a significant three-way interaction of ownership × quiz × self-concept clarity (β = -.63, t(186) = -2.29, p = .023), and a significant 2-way interaction of ownership × quiz (β = .69, t(186) = 2.52, p = .013). Floodlight analysis revealed that the ownership by quiz interaction was significant among participants with self-concept clarity score below 3.18, but not those with a score higher than 3.18 (B_{jn} = .26, SE = .13, p = 0.05).

Next, we conducted spotlight analysis to examine score differences between the 4 conditions under a low vs. high self-concept clarity score. Consistent with H2, there was a significant 2-way ownership × quiz interaction at 1 SD below the mean of self-concept clarity (t(186) = 2.42, p = .017), but not at 1 SD above the mean of self-concept clarity (t(186) < 1). At 1 SD below the mean of self-concept clarity, simple effect analysis supported H1b and revealed that within the creative writing quiz condition, participants in the earphones ownership condition performed significantly worse than those in the baseline condition, (β = -1.12, t(186) = -2.22, p = .028, d = .57). Within the music comprehension quiz, the difference between the earphones ownership and the baseline condition was not significant, despite the pattern being consistent with H1a (β = .53, t(186) = 1.15, p = .257, d =.30).

Additional analysis also revealed that participants in the earphones ownership condition performed worse on a creative writing quiz (*product-unrelated label* condition) than on a music

comprehension quiz (*product-unrelated label* condition) (β = 1.17, t(186) = 2.23, *p* = .027, d = .58). There were no differences between the scores within the baseline condition (β = -.48, t(186) = -1.10, *p* = .28, d = .28).