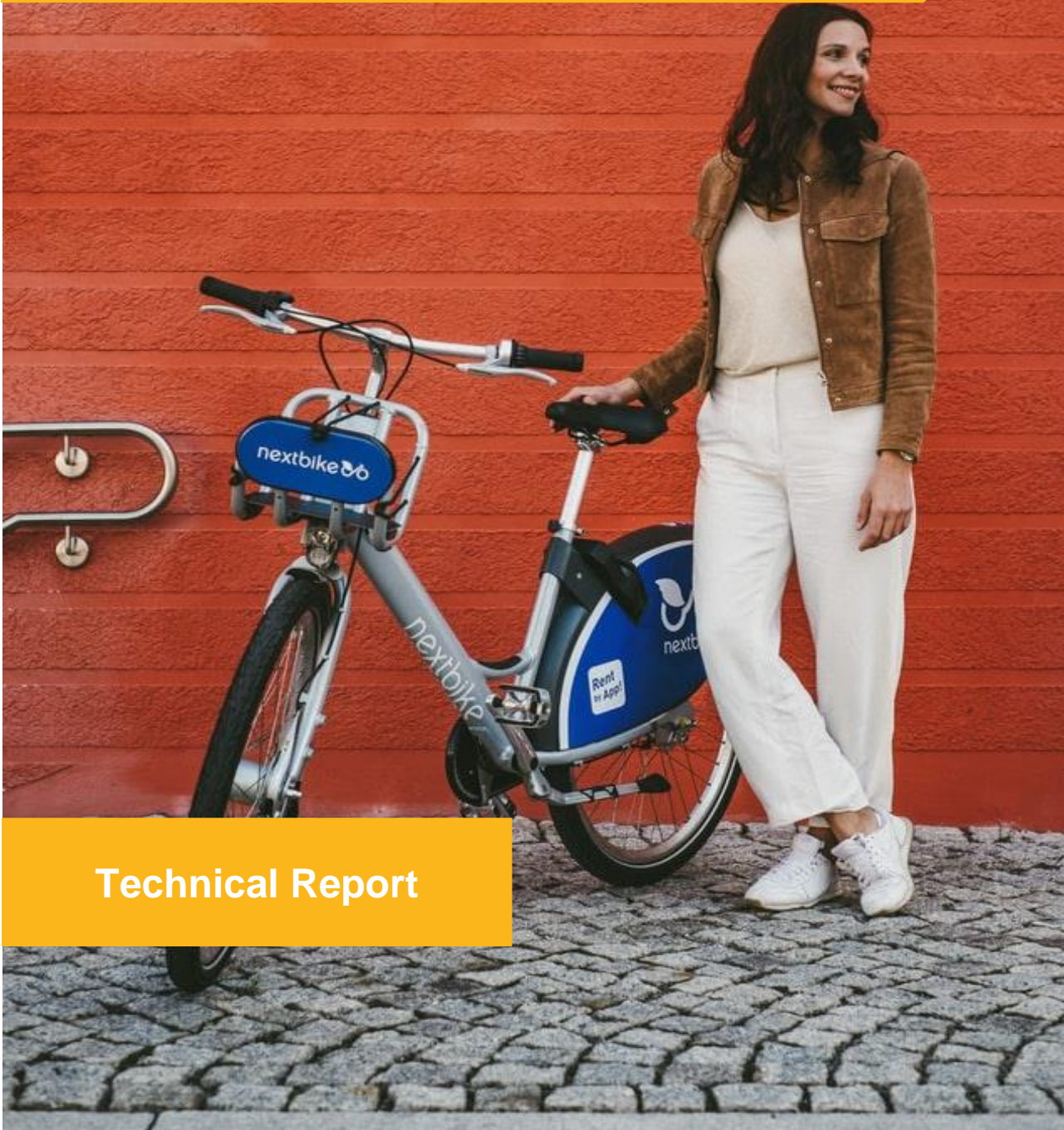


THE EFFECT OF ACCESS OPPORTUNITIES ON SPENDING VERSUS SAVING



Technical Report

Ozgun Atasoy
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THINK
FORWARD INITIATIVE

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Ozgun Atasoy and Baris Depecik †

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Abstract

With the help of digital technologies, access-based services such as subscription plans for accessing movies, music, cars, and many other goods gained widespread acceptance. We investigate the potential effect of the presence of these opportunities on consumers' spending versus saving decisions. We hypothesize that access-based services shift people's focus toward the present as opposed to the future, which in turn leads to relative subjective devaluation of future rewards, and hence a lower tendency to save for the future. Participants' direct responses (Study 1), people's spontaneous online search activity (Study 2), and a large scale survey (Study 3) provided evidence consistent with our hypothesis. A randomized experiment involving access versus possession prompts (Study 4) revealed the reverse effect for those who have a strong preference for ownership over renting, suggesting an additional process whereby access prompts trigger a goal to accumulate possessions for people who heavily value ownership.

Keywords: Possession versus access, Saving versus spending decisions, Sharing economy

* This report has been prepared by the authors for the Think Forward Initiative.

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1. Introduction

The emergence of new technologies and business ideas have created new ways of using products without owning them. Some of these developments would have seemed extraordinary just over a decade ago. For instance, people can have instant access to a wide collection of movies and TV shows (e.g., using Netflix) without owning physical or digital copies of these products. Likewise, people can use their mobile devices to access entire collections of major record labels (e.g., using Spotify). Access (as opposed to possession) can be defined as the temporal or long-term utilization without purchase and ownership (Chen, 2009; Bardhi & Eckhardt, 2012; Lamberton & Rose, 2012). Physical goods such as cars and lodging (e.g., via Zipcar, Airbnb, etc.) as well as digital goods such as digital music, movies, and ebooks (e.g., via Netflix, Spotify, Kindle Unlimited, etc.) are widely accessed via online tools.

In a separate development, low personal savings rates create concerns about future productivity growth and the ability of an aging population to fund its retirement and related healthcare needs (Lansing, 2005, Marquis, 2002). Chronically low savings rates (Bernheim et al., 2002) in countries such as the UK and the US prompted efforts to devise ways to increase household savings (Crossley, Emmerson, & Leicester, 2012; Bunting, 2009; Guidolin & La Jeunesse, 2007). Existing research on the drivers of saving behaviour largely focuses on financial incentives, education/financial literacy, and the format of presentation of the options (i.e., defaults, framing; Duflo et al., 2007; Mandell & Klein, 2009; Choi et al., 2003). We believe that current trends in the marketplace such as the proliferation of access-based services might also influence savings.

Access as an alternative to possession is not a new idea (e.g., libraries, museums, car rentals). However, the internet and the innovations that make use of the internet dramatically expanded what can be accessed when. There has been recent interest among consumer researchers to investigate consumer behaviour in connection to access-based services but much of the focus has been on explaining what makes access appealing to people (Bardhi & Eckhardt, 2012; Lamberton & Rose, 2012). Our research focuses on a different problem: How might the existence of access opportunities influence people's tendency to save money for the future?

We hypothesize that thinking about access orients people more toward the present than does thinking about possession. An orientation toward the present, in turn, decreases the subjective importance of planning for the future (e.g., via saving). We explain our reasoning below.

2. Theoretical Framework

Access is typically designed to fulfil immediate needs. In contrast, possessions are for the longer term. For instance, thinking about purchasing a car often brings to mind regular driving in the future—a fulfilment of future needs. In contrast, booking a car for a few hours is strictly associated with the fulfilment of a current need. Purchasing a book is often associated with consulting the book more than once in the future or having the possibility of doing so. Whereas borrowing a book is associated with immediate or short-term reading. Similar associations of present versus future orientation exists for booking a holiday home and purchasing one. Consequently, we argue that presence of access opportunities may act as a prompt to think about one's current needs and to pay less attention to one's future needs.

Recognizing the ease with which one can fulfil current needs via access-based services, one may deliberately focus on such needs as opposed to making sacrifices for the future. This may happen because need fulfilment generally feels easier or less costly. It may also happen because current opportunities seem abundant and enticing, making them seem worthy of pursuing. For instance, driving a series of latest car models for fun via access might seem more appealing than saving up to buy one.

A present-focus may also happen unconsciously as a result of frequent exposure to access-based services, which may automatically activate present-related concepts in mind (akin to a prime; Morewedge & Kahneman, 2010). For instance, reading about a new access-based service on social media, receiving an offer to use such a service, booking and using these services in daily life might serve as a series of prompts to focus on the present.

Saving money instead of spending it requires consideration of future benefits and involves giving up current consumption enjoyment. Propensity to save is dependent on the subjective importance of future rewards in comparison to present rewards (Mischel, Grusec, & Masters, 1969; Loewenstein & Prelec, 1993; Berns, Laibson, & Loewenstein, 2007). The subjective value of future rewards is generally lower than that of immediate rewards. In other words, a degree of future time discounting is the norm (Loewenstein, 1987; Soman et al., 2005). Any factor that shifts one's focus toward the present is likely to increase the subjective importance of present rewards in comparison to future rewards. Consequently, we propose that exposure to access opportunities reduces one's propensity to save money for the future. The conceptual relationships that we propose can be summarized as follows:

Access Opportunities → Present Focus → Reduced Tendency to Save

3. Study 1

3.1 Study Objective

In this study we investigated people's personal views as to the potential effect of the proliferation of access-based services on the need to save money for the future. We also investigated a potential driver of such views: the extent to which using access-based services orients people toward the present vs the future. We investigated these personal views in this study via direct questions. Subsequent studies investigate the same problem using other methodologies.

3.2 Method

Two hundred US residents (43% female; $M_{Age} = 38.36$, $SD = 12.00$) were recruited through Amazon's Mechanical Turk. Participants first read a short text describing the recent popularity of access-based services such as movie or music streaming services, and car or electronics rental services. They then read: 'As described in the article, people nowadays have lots of opportunities to use products without purchasing them thanks to new rental- or subscription-based services such as Netflix, Spotify, Zipcar, and many others. How do you think these opportunities change the need to save money for the future?' They also read that 'There are no right or wrong answers, we're interested in your personal opinion. If you think they don't cause any change, please select "have no effect on the need to save money."' They indicated their opinion using a seven point scale from 1 (strongly reduce the need to save money) to 7 (strongly increase the need to save money).

After selecting their answer, participants moved on to the next screen and read: 'In our daily lives we sometimes focus our attention on the present, other times on the future. When we focus on the present, we pay attention and react to what's happening now. When we focus on the future, we imagine what the future will bring and perhaps plan to prepare for the future.' They were then asked to indicate their opinion on the potential effect of the presence of access-based services on people's present- vs future-focus by completing the statement 'Having access to all these rental- or subscription-based services helps us ...' by selecting one of seven answer choices on a scale ranging from 1 (strongly focus on the present) to 7 (strongly focus on the future)

Participants were then given the option to verbally explain the reasons for their choices, answered an attention check (i.e., What number is mentioned in the title 'Four Trends Defining a New Era of Shopping?') and demographic questions.

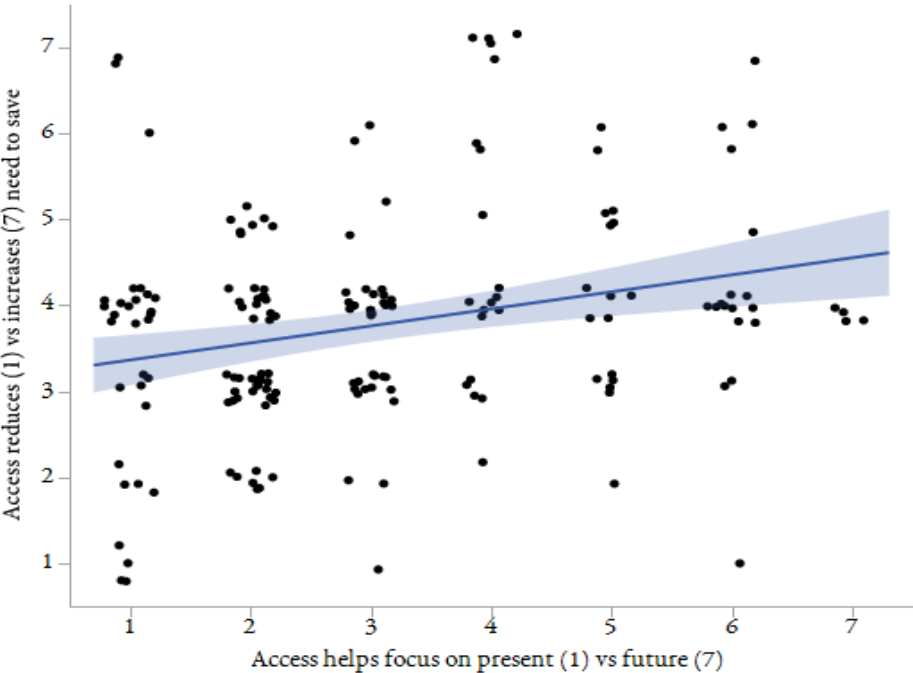
3.3 Results and Discussion

Twenty five participants failed to answer the attention check correctly and therefore were excluded from the analysis below. Including these participants leads to similar results.

Participants indicated that the presence of access opportunities decreases the need to save money for the future ($M = 3.78$, $SD = 1.27$; compared to 4.0, which corresponds to indicating no effect on need to save, $t(174) = 2.32$, $p = .02$), and that having access to these opportunities makes people focus on the present ($M = 3.07$, $SD = 1.67$; compared to 4.0, which corresponds to indicating a focus on neither the present nor the future, $t(174) = 7.36$, $p < .001$).

Critically, we tested whether people’s responses to the latter ‘*time-focus*’ question, statistically predicted their responses to the ‘*need for savings*’ question. To test this hypothesis, we regressed need for savings on time-focus. The results indicated that the more strongly someone believed that access-based services helped him focus on the present (future), the more strongly they believed that access-based services reduce (increase) the need to save ($\beta = 0.20$, $SE = 0.06$; $t(173) = 3.78$, $p < .001$; Fig. 1).

Figure 1: Perceived effect of access-based services on the need to save money by judgments of the extent to which the presence of access opportunities helps focus on the present vs the future in Study 1



Note: In the raw data numerous data points fall onto identical coordinates. To render all data points visible, the figure offsets them slightly from their actual positions using a randomized jitter procedure. The regression line is based on the raw data. Brackets indicate 95% confidence intervals.

This finding is consistent with our hypothesis that people’s tendency to save less comes from a mental shift towards a short-term focus amid the presence of access opportunities. Despite this consistency, it can be argued that direct questions such as those used in this study prompts people to think about possible connections between access opportunities, need to save money, and a focus on the present contrary to the future. If these connections appear only in response to such prompts and do not occur spontaneously, then the presence of access opportunities may not influence actual behaviour. To address this concern, we investigated people’s interest in saving and their interest in access-based services as indicated by their online search activities. Since people decide for themselves what to search online, their search activity serves as an indicator of any unprompted connection between access opportunities and the motivation to save money.

4. Study 2

4.1 Study Objective

In this study, we investigated people's online search activity as an indicator of their spontaneous interest in access-based consumption and in saving money for the future.

4.2 Method

We conducted a cross-metropolitan US area analysis of search engine queries as logged by Google in 2019. The Google Trends service reports comparative interest in search terms by subregions.

To measure interest in saving, we initially identified a list of search terms using Google's list of most popular queries related to "saving money". Our list includes search terms such as "how to save money", "ways to save money", and "money saving tips". We found the relative popularity of these terms for different metropolitan areas in the US. Google Trends data is indexed to 100, where 100 is the area with the highest search interest, and a value of 50 indicates an area which the search term is half as popular.

We followed a similar procedure to develop a measure for the interest in access-based consumption. We collected search queries for 10 leading access providers. We requested the search volumes for all terms simultaneously rather than searching them separately and taking the average to avoid rescaling interest measures. Interest in access-based consumption is also calculated on a scale from 0 to 100, where 100 is the area with the highest search interest.

To control for other variables that may explain geographic variation in interest in saving, we considered a set of demographic and socio-economic variables that include household income, old-age dependency (defined as the ratio of the population aged over 65 to the working-age population) and young-age dependency (defined as the ratio of the population aged under 15 to the working-age population). We collected data for control variables from the data set of The United States Census Bureau.

4.3 Results and Discussion

We regressed interest in saving on interest in access-based consumption, with and without control variables. Our analysis considered 105 metropolitan areas for which Google Trends and The United States Census Bureau provide data. Results (Table 1) indicate that interest in saving is lower in metropolitan areas in which Google users enquire more about access-based consumption. Based on the results of the model with control variables, a unit increase in search interest for access-based consumption (1% of the maximum search interest for access-based consumption) is associated with a 1.06 unit decrease in interest in saving (1.06% of maximum search interest for saving). The R^2 values (Table 1) indicate that this is a medium-size effect (Cohen, 1988).

Table 1: Linear model of predictors of interest in saving in Study 2

Predictor	Model 1 (DV: Interest in Saving)	Model 2 (DV: Interest in Saving)
Intercept	82.76 (4.01)	75.08 (18.46)
Sharing Economy	-.71 (.19)**	-1.06 (0.29)**
Mean household income		.17 (0.10)*
Young age dependency ratio		9.23 (35.34)
Old age dependency ratio		-9.38 (25.61)
<i>R</i> ²	.11	.16
Overall <i>F</i>	12.93	4.32
<i>df</i>	1,103	4,100

Note: SE's in parentheses. * $p < .05$, ** $p < .01$, *** $p < .001$.

This finding is consistent with our expectation that higher levels of interest in access-based consumption are associated with reduced interest in saving. We conducted this study in order to test our hypothesis that interest in access lowers interest in saving, but can this finding be explained alternatively by the reverse causal path? In other words, could it be that higher interest in saving lowers people's interest in access instead? This could happen if people believe that using access opportunities hinders their efforts to save money. Although we cannot test this possibility using the data from this experiment, the results from a separate pilot test is informative. After reading a short text explaining new access opportunities, embedded within other questions, 201 United States residents recruited via Amazon Mechanical Turk indicated the extent to which they agreed or disagreed with the following statement: "Rental- or subscription-based services help people save money," on a seven-point scale with endpoints strongly disagree (1) and strongly agree (7). Their answers indicated agreement with the statement ($M = 4.82$, $SD = 1.47$; compared to 4.0, which corresponds to neither agree or disagree, $t(200) = 7.85$, $p < .001$). In other words, people seem to believe that access opportunities help, not hinder, efforts to save money. Therefore, the reverse causal path seems less likely than our hypothesized relationship.

5. Study 3

5.1 Study Objective

To further examine the links between access opportunities, temporal focus, and saving, we conducted a large-scale survey in collaboration with ING Turkey.

5.2 Method

Aiming to track individuals' saving intentions, motives, and preferred saving vehicles, ING carries out a monthly Saving Tendencies Survey with Turkish residents using computer-assisted telephone interviewing techniques. The survey includes items to measure saving intentions. We introduced two new items to measure interest in access-based consumption and one new item to measure temporal focus (Table 2). These new items are included in May-October 2020 surveys. A total of 4069 participants responded to the survey. 3895 respondents (95.7%) answered all questions and we removed 174 responses due to missing values.

Table 2: The items that we added to ING's *Saving Tendencies Survey* conducted monthly in Turkey

Construct	Items	Survey Statement	Item Scales
Preference for access (vs possession)	Preference for access	When I want to use a product or service, I prefer renting or using subscription services over purchasing.	Strongly disagree (1)- Strongly agree (5)
	Preference for possession	It is important to own the products I use.	Strongly disagree (1)- Strongly agree (5)
Temporal focus	Temporal focus	It is important to plan for the future.	Strongly disagree (1)- Strongly agree (5)
Saving	Saving	Have you saved or planning to save money?	No (0) – Yes (1)

5.3 Results and Discussion

We conducted a mediation analysis, testing whether temporal focus would mediate the effect of the degree of preference for access on saving. We included age, gender, education level, marital status, and annual income as control variables. As recommended by Hayes (2017), we examined confidence intervals (CI) using 5,000 bootstrap iterations.

As predicted, the indirect effect through temporal focus (-0.05, 95% CI [-0.07, -0.04]) was significant. The direct effect of preference for access was not significant (0.08, 95% CI [-0.00, 0.16]; the 95% CI included the number 0). Regarding the effects of control variables, having higher education or income, being single, or younger increased the likelihood to save. Gender's effect on savings was not statistically significant.

The direction of the effects in the mediation analysis (Table 3) indicates that a stronger preference for access shifted the temporal focus toward the present, which in turn decreased the likelihood to save. The total effect of preference for access on saving was not significant, which suggests that there are mechanisms in addition to temporal focus that drive the effect of preference for access on saving in the opposite direction.

Table 3: Linear models of predictors of temporal focus and of saving in Study 3

	Outcome Variable: Temporal Focus	Outcome Variable: Saving
Preference for access	-0.17 (0.02)***	0.08 (0.04)
Temporal focus (higher numbers indicate stronger future focus)	NA	0.31 (0.04)***
Gender	0.03 (0.04)	0.01 (0.07)
Age	-0.11 (0.01)***	-0.38 (0.03)***
Education Level	0.06 (0.02)**	0.23 (0.04)***
Marital Status (single: 0, married: 1)	0.08 (0.04)	-0.19 (0.08)*
Annual Income	0.01 (0.01)***	0.17 (0.02)***
Constant	4.79 (0.07)***	-1.30 (0.23)***

Note: SE's in parentheses. * $p < .05$, ** $p < .01$, *** $p < .001$.

The statistical analyses for this study as well as the previous two studies are correlational as the study designs do not involve random assignment. Of course, this prevents us from testing causality but our study designs so far have some unique advantages. Study 2 allowed us to observe real-world behaviour. Study 3 allowed us to reach a large group of people with a professionally conducted survey. We now report an experiment with random assignment.

6. Study 4

6.1 Study Objective

The objective of Study 4 is to investigate the causal relationship between thinking about access (vs possession) and intention to save money for the future. In order to investigate causality, we use an experimental setup with random assignment and manipulations of access vs possession prompts. We investigate the influence of these prompts on subsequent choices about saving.

6.2 Method

Two hundred and three US residents (44.8% female; $M_{Age} = 38.02$, $SD = 11.53$) were recruited through Amazon's Mechanical Turk.

Participants were randomly assigned to one of two conditions. In one condition, they considered various products for access; in the other condition, they considered the same products for purchase. Specifically, in both conditions they considered a set of books, cameras, and bicycles, in that order, for access or for purchase.

Participants who were assigned to the access condition read:

Imagine that you have subscribed to a book renting membership plan. The plan works like Netflix for DVD's but instead of DVD's you receive books.

According to your subscription plan, you create a list of books that you would like to read. The books from your list are mailed to your home. You can have in your possession at most three books at one time. Once you send back a book, the next book on your list is mailed to you. You pay a monthly membership fee.

Imagine that you are selecting the next three books that you will receive as part of your book renting membership plan. You are considering the books below. Which books would you choose to rent? Please scroll down to examine them.

On the page they saw six book covers accompanied by a short description of each book. The books were actual books currently on the market. We selected them to cover a range of interests including interior design, biography, popular science, cooking, fiction, and history. After they selected three of these books, they proceeded to the next question:

Imagine that you recently got interested in photography and decided to take it up as a hobby. To start out you need a camera but you would prefer renting instead of buying at this stage.

You are aware of a peer-to-peer equipment renting service. With this service people who have equipment to rent out can post them online. Renters get to use them without buying them. There are four cameras that are available to rent.

The cameras and their main features are shown below. The rental cost is the same for each of these four cameras.

They saw the photographs of four cameras from Nikon, Sony, and Canon along with a short list of their specifications including camera type (i.e., DSLR, etc.), width, height, depth, weight, and color. They then selected the one camera that they would rent and proceeded to the next question:

Imagine that you decided to ride a bicycle regularly but you prefer renting instead of buying. You decided to use a bicycle subscription service. With this service you receive a bicycle that you can use full-time. In exchange you pay a monthly subscription fee.

Four bicycle models are available for rent. Their descriptions are below. Please examine them and select the one that you would rent.

They saw the photographs of four bicycles accompanied by a short description of each bicycle. We selected the bicycles to cover a range of bicycle types including cruiser, flat-foot, dual sport, and city. They selected the one bicycle that they would rent.

These tasks constituted the access manipulation. The tasks were designed to nudge people into thinking about access opportunities and imagine renting a variety of products. We were not interested in the particular options that they selected but in the potential effect of completing this task on their subsequent choices. Participants assigned to the purchase condition considered the same products and indicated their choices in a similar manner, but were asked to consider these options for purchase. This aspect of the experiments' design allowed us to isolate the effect of thinking about access vs possession on subsequent choices, while keeping the potential effects of thinking about particular products constant. The instructions for the participants assigned to the purchase condition were the following:

Imagine that you are looking for new books to read. You decided to purchase three books. You are considering the books below. Please scroll down to examine them. The prices of these books are similar. Please select the three books that you would purchase.

Imagine that you recently got interested in photography and decided to take it up as a hobby. To start out you need a camera and you started a search to buy one. You narrowed down your search to four cameras. The cameras and their main features are shown below. The prices of these cameras are similar. Please indicate which camera you would buy.

Imagine that you decided to ride a bicycle regularly and started a search to buy a new bicycle. You narrowed down your search to four bicycle models. Their descriptions are below. Please examine them and select the one that you would buy. Please indicate which bicycle you would purchase.

Next, all participants were asked to indicate their preferences concerning spending and saving by answering three questions. The first question was the following: "Imagine that you have just received 1,250 USD. How much of the money would you intend to set aside for savings?" Participants used a sliding scale between \$0 and \$1,250 to answer this question. The next question asked, "Right now, how important do you think it is to save your money vs. spend it on products?" The answer choices were on a 9-point scale with endpoints 1 (not at all important to save) and 9 (very important to save). The third question asked, "In the next month, what percentage of your income will you put into your personal savings (including savings account, checking account, retirement, cash, etc.)?" Participants used a sliding scale between 0% and 100% to answer this question.

Participants then indicated the extent to which they agreed or disagreed with the following statement: "I would generally prefer renting over buying if a rental option is available", on a 7-point scale with endpoints 1 (strongly disagree) to 7 (strongly agree). We included this question to measure people's general preferences regarding purchasing vs renting goods, and to test whether our manipulation has different effects on people with different general preferences regarding purchasing vs renting goods.

The survey concluded with demographic questions, an open-ended question asking participants to guess the study purpose, an attention check, and a written debrief. The attention check asked "Which of the following is your favourite product from this survey? This is a data quality check. Regardless of your true preference, please select Camera."

6.3 Results and Discussion

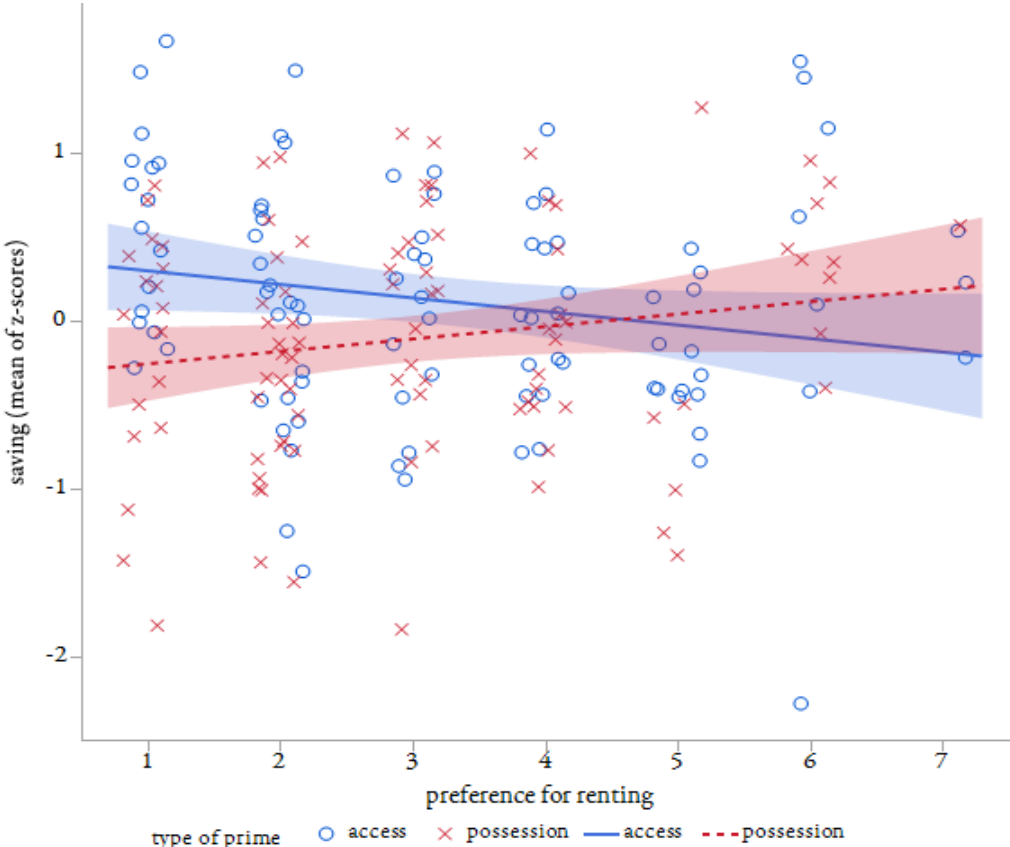
Nine participants failed to answer the attention check correctly and were excluded from the analysis. The three saving intention measures were z-scored to facilitate comparison as they were measured on different scales.

To investigate the effect of our manipulation on people's intention to save, we conducted a 2 (type of prime: access vs possession) x 3 (type of saving measure: portion of a sum of money, importance of saving, saving plan for next month) mixed design ANOVA with type of prime as a between subjects, type of saving measure as a within subjects factor. Neither the main effect of type of saving measure nor its interaction with type of prime was significant ($p > .96$), indicating that the access vs possession manipulation influenced all three saving measures in a similar manner. The main effect of the type of prime was significant ($M_{purchase} = -0.11$, $SE = 0.07$; $M_{access} = 0.11$, $SD = 0.07$; $F(1, 192) = 5.03$, $p = .03$, $\eta_p^2 = .03$; 95% $CI_{diff} [0.03, 0.42]$), revealed that people who considered access indicated higher saving intentions than people who considered possession. This result is surprising to us given that we predicted the reverse. In particular, we predicted that access resulted in lowering, not increasing, saving intentions. To investigate this effect further, we tested whether the effect depends on people's personal preferences for renting vs buying.

To test this, we regressed the mean saving measure on the type of prime (0 = purchase; 1 = access), preference for renting, and their interaction. The main effect of the type of prime was significant ($\beta = 0.71$, $SE = 0.21$; $t(189) = 3.29$, $p = .001$), the main effect of preference for renting was not significant ($\beta = 0.07$, $SE = 0.04$; $t(189) = 1.65$, $p = .10$). Critically, the type of prime by preference for renting interaction was significant ($\beta = -0.15$, $SE = 0.06$; $t(189) = 2.51$, $p = .01$) indicating that the effect of type of prime, depended on people's personal preference for renting vs buying.

Inspection of the scatterplot (Fig. 2) of saving intentions against personal preference for renting vs buying for the two types of prime (i.e., access and possession) clarifies this interaction. The plot indicates that the observed increase in people’s saving intentions in response to the access prime, is driven by those who heavily prefer ownership over renting. The direction reverses (i.e., saving intentions decrease in response to the access prime) for those who prefer renting, even though this decrease is statistically insignificant.

Figure 2: Saving intentions by personal preferences for renting vs buying for those who initially considered access vs purchase options in Study 4



Note: Jittered data points; regression lines are based on raw data; brackets indicate 95% confidence intervals. Participants whose preference for renting over buying were lower than the Johnson-Neyman point 3.30 (62%) exhibited significantly greater saving intentions after an access prompt than after a possession prompt.

Even though these results are unexpected, we consider them informative. Getting exposed to access opportunities might trigger a rejection reaction, especially for those who strongly value having possessions. Suggestions to use access-based services might be felt as a threat and consequently increase the person’s motivation to accumulate possessions, which might trigger the goal of accumulating savings. Note that this perceived-threat account applies only to those who strongly prefer ownership over access. Our original present-focus account is probably still needed as a simultaneously-occurring mechanism to explain the interaction in Figure 2. Of course, these are plausible but speculative explanations and more data would be needed to investigate these potential mechanisms.

7. Conclusion and discussion

Using multiple methodologies (i.e., experiment, archival data, and a large-scale survey) we observed that presence of access opportunities influences people's propensity to save money for the future. In Study 1, respondents indicated that the proliferation of access-based services reduces the need to save money for the future, and makes people focus more on the present than on the future. The strength with which people held these two beliefs were positively correlated. In Study 2, we investigated people's online search activity. We found that the more interest people have in access-based services, the less interest they have in saving. In Study 3, a large-scale survey indicated that the more interest people have in access-based services, the less importance they ascribe to planning for the future, which in turn leads to lower savings. Even though we found statistical evidence for this causal chain, the overall effect of people's interest in access-based services on saving was not significant. This suggests a concurrent causal chain that is characterized by a positive link between people's interest in access-based services and their willingness to save. In Study 4, contrary to our prediction, thinking about access increased people's interest in saving. Critically, this result was driven by people who have a strong preference for ownership over renting. This suggests a potential causal pathway whereby people who prefer ownership feel threatened by exposure to access opportunities. This feeling activates the goal to accumulate savings for big purchases. Without additional data, this causal pathway is speculative.

Our data constitutes early evidence that suggests that access or rental-type opportunities in the marketplace might influence people's spending vs saving decisions. We proposed that being exposed to access opportunities would orient people toward the present and increase its subjective importance. Study 1 and 3 provided some evidence for this explanation.

Our current data, however, does not allow us to test the potential influence of all other plausible alternative explanations. One such alternative is the following: Some people may be driven by the idea that access opportunities reduce the need to save because saving is for big purchases. In other words, in the presence of access opportunities people can avoid making big purchases, which reduces the need to have savings. This reasoning-based mechanism, if indeed effective, may serve as an alternative explanation or as a separate factor that contributes to the effect alongside our temporal focus account. More data would be needed to discern these mechanisms.

People's desire for ownership have deep psychological roots (Belk 2013; Morewedge and Gliblin 2015; Pierce, Kostova, and Dirks 2001; Shu and Peck 2011). Consequently, considering new access opportunities that do not offer ownership might trigger psychological discomfort. Access might be very convenient but may fail to fulfil people's need for feelings of control and ownership (Atasoy and Morewedge 2018), hence leading to a sense of trade-off and conflict. Getting exposed to rental-type offers might even increase people's focus on acquiring possessions, if they are in high need for control and ownership. Previous research documented similar processes. For instance when people's self-esteem is threatened they sometimes react by assigning a higher subjective value to goods that are linked to their self-concept (Baumeister, Smart, and Boden 1996; Dodgson and Wood 1998; Hetts, Sakuma, and Pelham 1999; Jones et al. 2002).

We view our results as preliminary. They need to be replicated; and more experimental data should probe the processes that we describe above. In particular, access prompts' ability to shift time perspective should be examined with experimental procedures. Therefore, the implications that we discuss will be tentative. With that caveat, we discuss below two major implications of our findings.

First, our findings have implications concerning how to motivate people to save. Agencies such as Consumer Financial Protection Bureau in the United States work to encourage people to build personal savings. In order to motivate people to save, they often mention a variety of purchases that savings would help achieve. For instance, a video prepared for the public by the Consumer Financial Protection Bureau mentions the following as reasons to save: being able to avoid borrowing for major purchases, set money aside for future purchases, afford car repairs, purchase new furniture, and pay down-payment on a home. The video *How to Jumpstart Your Savings at Tax Time* is available at consumerfinance.gov. This approach is unlikely to motivate those who realize that there are alternatives to traditional purchase- and ownership-based consumption. There are, however, other strong reasons to save money. Some of these reasons are more in line with access based consumption. For instance, having savings is very useful when people need to deal with health risks or job loss; in order to afford experiences such as vacations, one's own or children's education; and even to support philanthropic, environmental, or political causes that one cares about. Such reasons can be emphasized more.

Secondly, our findings have implications concerning how to encourage people to use access-based services. Not everyone considers access a desired alternative to ownership. Some may even see it as a threat to their way of life or values. The appeal of ownership has strong psychological and cultural roots (Pierce, Kostova, & Dirks, 2003). Nevertheless, there are good reasons for encouraging access as an alternative to ownership. One reason is the environment. Access is often associated with a more efficient use of the planet's resources. Car sharing is a good example (Lawson et al., 2016). How can a firm or public policy organization promote access-based consumption without triggering a backlash characterized perhaps by an even stronger desire to accumulate possessions? One approach is to realize that ownership is a feeling, and it does not necessarily follow legal ownership. Therefore, consumers may react to the promotion of access in a less defensive way if some degree of association between access-based consumption, and feelings of ownership can be established. A sense of control over a product, an intimate knowledge of it, and investing time and effort into it, cultivate feelings of ownership even in the absence of actual ownership (Pierce, Kostova, & Dirks, 2003; Morewedge et al. 2020). Aspects of access-based consumption that are associated with one or more of these factors can be emphasized. Customizable features (Kirk & Swain, 2015) and touch interfaces for digital products (Brasel & Gips, 2014) establish a sense of control over a product. Being able to create and share content such as online music playlists (Sinclair & Tinson, 2017) encourages users to spend time and effort on the product. Even though these features may not completely erase the psychological disadvantage of access against possession in terms of feelings of ownership, they might mitigate some of the potential defensive reactions.

8. References

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