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Working Paper

Self-Scanning and Self-Control: A Field Experiment on Real-Time Feedback and Shopping Behavior

Working Paper, No. 2017:15

Provided in Cooperation with:
Department of Economics, School of Economics and Management, Lund University

Suggested Citation: Montinari, Natalia; Runnemark, Emma; Wengström, Erik (2017) : Self-Scanning and Self-Control: A Field Experiment on Real-Time Feedback and Shopping Behavior, Working Paper, No. 2017:15, Lund University, School of Economics and Management, Department of Economics, Lund

This Version is available at:
https://hdl.handle.net/10419/260224

Online Appendix - Self-Scanning and Self-Control: A Field Experiment on Real-Time Feedback and Shopping Behavior

November 2017

Abstract

This document contains additional materials for "Self-Scanning and Self-Control: A Field Experiment on Real-Time Feedback and Shopping Behavior" by Natalia Montinari, Emma Runnemark and Erik Wengström. Section 1 presents information about the experimental sessions, including information about the stores and the self-scanner devices. Section 2 contains more summary statistics concerning the socio-economic variables and the self-reported shopping habits. Section 3 provides additional information about the relationship between scanner usage and the length of the shopping trip. Section 4 presents additional analysis on the determinants of being a self-scanner user. Section 5 gives a detailed analysis of the attrition and sample selection issues. Section 6 contains additional robustness checks for the regression analyses presented in the main text. Section 7 describes the protocol used by the assistants and presents the questionnaire filled in by the participants.

1 Participants, Dates and Locations

Table 1 reports information about the dates, the locations and the observation collected.

Session	Date	Time	# Participants	Percent	Location
1	October, 8 (Wednesday)	16.00 – 20.00	43	9.79	Malmo
2	November, 1 (Saturday)	10.00 – 16.00	94	21.41	Malmo
3	November, 3 (Monday)	16.00 – 20.00	59	13.44	Malmo
4	November, 4 (Tuesday)	15.00 – 20.00	50	11.39	Lund
5	November, 8 (Saturday)	10.00 – 16.00	72	16.40	Lund
6	November, 13 (Thursday)	15.00 – 19.00	49	11.16	Lund
7	November, 15 (Saturday)	10.00 – 16.00	72	16.40	Malmo
Total		-	439	100	-

Table 1: Participants, dates and locations

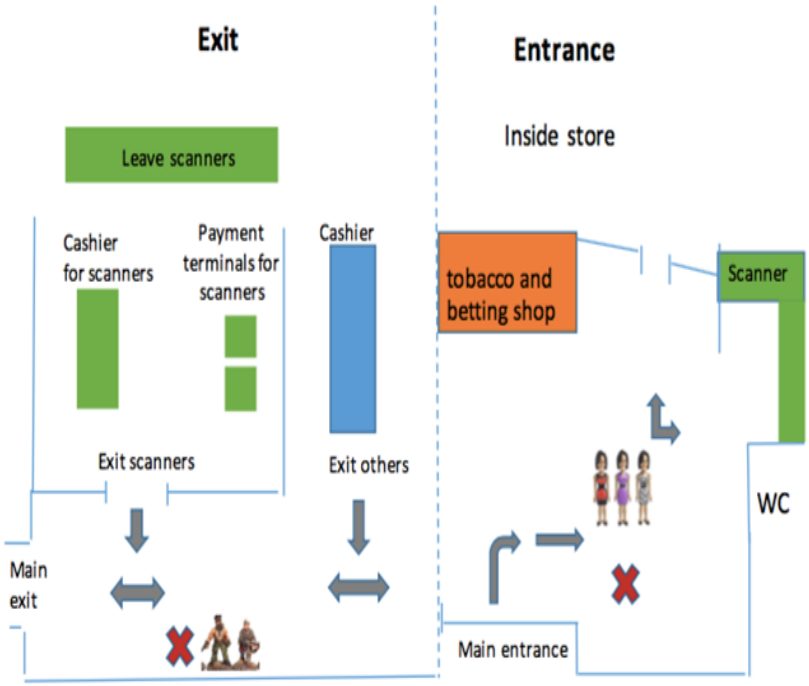

Figure 1: Illustration of the location at the shop

Figure 1 illustrates how the data collection took place in both branches. All customers enter the shop from the main door (on the bottom right of the Figure). There, eligible individuals were approached by the assistants and asked if they were interested to participate in the study. Those participants who did not drop out at this stage received information about the study, and then, if they continued, also information about their treatment assignment and a coupon to be returned to the assistants at the exit in order to receive the Trissolot (lottery ticket) as small gift for their participation. After the treatment assignment, participants in the self-scanning treatment proceed to the green area on the right, took the self-scanner and

started their shopping, while others could immediately start by entering in the store.

At the exit of the store (on the bottom left of the figures) participants had two options depending on the treatment assignment. Participants in the no self-scanning treatment had to pay at the cashier, while those assigned to the use of self-scanning, after leaving the scanner, could proceed to the automatic terminal or to the dedicated cashier. After the payment, all participants presenting their coupon received the survey to be filled, left their receipt and received the lottery ticket.

Figure 2: Illustration of how the scanner provided by City Gross works

Figure 2 reproduces the instruction provided by City Gross to the use of self-scanners. To start, customers have to swipe their loyalty card in the dedicated screen. Then a self-scanning

device is assigned to them and they can start their shopping trip. At the end of the shopping they can leave the device in the dedicated area and proceed to the payment. In the two brunches we visited customers could choose whether to pay at the automatic terminal or to a dedicate cashier.

Figure 3: Picture of the screen of a scanner provided by City Gross

Figure 3 displays the screen of the scanners provided by City Gross. The central part is divided in three columns displaying is the list of the items bought, their quantity and prices. In the bottom part other three columns display the amount spent for items bought on discount, the total number of items scanned and the total amount spent up to that point.

2 Summary Statistics

In this section we provide a more detailed analysis of the information about the socio economic background and the shopping habits displayed in Panel B of Table 1 of the manuscript and of other variables included in the survey.

Our participants are mostly born in Sweden (89.93%, N=393/437). They are on average 50 years old, with 9.89% of the participants being younger than 30 years old and 16.09% being older than 65 years old.

When considering the reasons for using the self-scanner, 53.33% ($N = 192/360$) of the responders who only provide one reason for scanning, indicated the possibility to save time, while only 10% ($N = 36/360$) indicate that it allows a better cost control.[1]

Participants report their net monthly income in different classes as follow:

- 8.25% ($N = 35/424$) report an income lower than $15,000$ SEK (class 0);
- 18.40% ($N = 78/424$) report an income between $15 - 25,000$ SEK (class 1);
- 17.69% ($N = 75/424$) report an income between $25 - 35,000$ SEK (class 2);
- 23.11% ($N = 98/424$) report an income between $35 - 45,000$ SEK (class 3);
- 13.92% ($N = 59/424$) report an income between $45 - 55,000$ SEK (class 4);
- 11.32% ($N = 48/424$) report an income between $55 - 70,000$ SEK (class 5);
- 7.31% ($N = 31/424$) report an income higher than $70,000$ SEK (class 6).

The income class distribution is not significantly related to the location ($\chi^2(6) = 0.8.783$, $p = 0.186$) or shopping on Saturday ($\chi^2(6) = 5.087$, $p = 0.533$). Participants who pay with cash have an income level significantly different than the others ($\chi^2(6) = 12.249$, $p = 0.054$), with more low income individuals using cash. Figure 4 displays, for each treatment, the average amount spent (in SEK) depending on the reported income class. It can be noted that, in both treatments, there is an positive relationship between high income and higher average amount spent. According to a set of two samples t-tests, differences in the average amount spent between the income classes are always statistically significant except for the average amounts spent by participants in contiguous income classes. Specifically, differences are not significant when comparing the following classes: 1 vs 2; 2 vs 3; 3 vs 4; 3 vs 5; 4 vs 5 and 5 vs 6. Participants who pay with cash have an income level significantly different than the others ($\chi^2(6) = 12.249$, $p = 0.054$), with more low income individuals using cash.

Participants report an average size of the household of 1.95, with the 70% (N=301/430) living in a household composed by two members, the 19.53% (N=84/430) living alone and the 7.44% living in a household with 3 members. The relative majority of the households does

[1]The variable Reasons for Scanning takes the following values: 0=saves time, 1=comfortable, 2=better cost control, 3= don't know, don't want to scan 4= other.

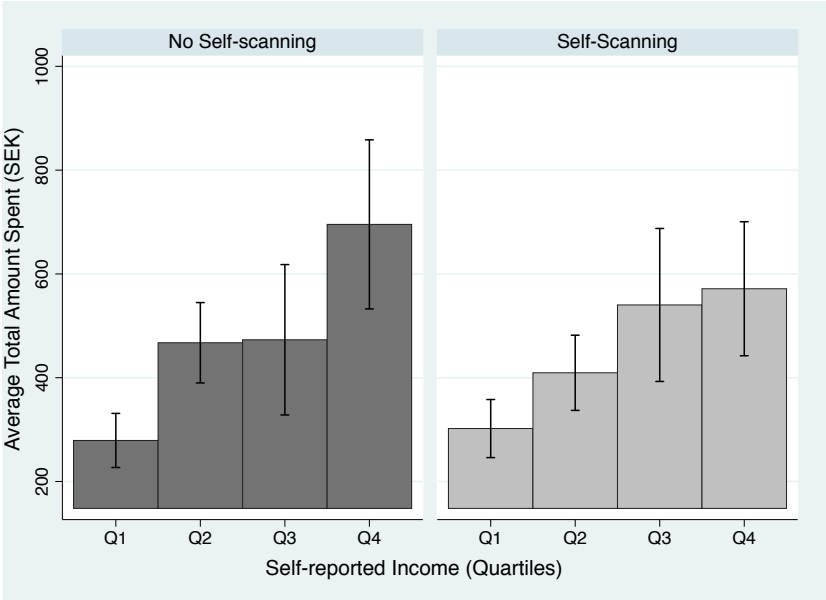

Figure 4: Average amount spent (in SEK) depending on the reported income and on the treatment

not have children (65.82%, N=285/433); one and two children between 0 and 18 years old live in 14.55% (N=63/433) and 15.70% (N=68/433%) of the households, respectively. The household size and the number of children in the household are both significantly associated with income class ($\chi^2(30) = 52.504$, $p = 0.007$, $\chi^2(30) = 154.372$, $p = 0.000$, respectively).

When considering the occupation, 69.27% (N=300/433) of the participants report to be employed; 5.08% (N=22/433) self-employed, while 18.24% (N=79/433) are retired and 5.77% (N=25/433) are students. Income classes and the use cash are found to be significantly associated with the occupation ($\chi^2(24) = 110.10$, $p = 0.000$ and ($\chi^2(4) = 23.832$, $p = 0.000$, respectively), with retired participants being more likely to report low income ($t = 5.721$, $p = 0.000$) and more likely to use cash ($t = 3.240$, $p = 0.0013$). The relative majority of participants (47.36%, N=206/435) reports college/university as education level; the second most frequent group is for participants having upper secondary school education level (37.47%, N=163/435), with the remaining 10.80%, N=47/435 reporting primary and secondary school. The education level varies significantly when considering the location ($\chi^2(3) = 22.302$, $p = 0.000$, with a higher percentage of participants in Lund reporting college/university as level of education[2]); income levels ($\chi^2(18) = 93.341$, $p = 0.000$, with participants reporting college/university as education level being also more likely to report high income class); and shopping on Saturday ($\chi^2(3) = 17.925$, $p = 0.000$, with more educated individuals being less likely to shop on Saturdays). Self-reported personal and household information are not significantly associated with treatment.

[2]This difference is mostly likely due to the fact that Lund is a University town.

When considering the shopping habits, 31.19%, ($N = 136/436$) of the participants report that always write a shopping list before shopping, while only 7.80% ($N = 34/436$) report that never write it. The relative majority only does this sometimes (49.31%, $N = 215/436$), while the remaining ones report that they write it only seldom. Associations between writing a shopping list and income as well as household size are significant ($\chi^2(18) = 40.422$, $p = 0.002$ and $\chi^2(15) = 31.829$, $p = 0.007$, respectively).

The relative majority of participants (81.69%, $N = 357/437$) does not have any subscription to food bag[3] it appears significantly associated with the location, the shopping day and the number of children in the household ($\chi^2(1) = 21.140$, $p = 0.000$, $\chi^2(1) = 30.368$, $p = 0.000$, Fisher's exact=$p = 0.001$) with participants shopping in Malmo and on Saturdays being more likely to have such subscription. As a proxy of being open toward new technologies, 57.98% ($N = 247/426$) of our participants report to have a bank id on their mobile. This is only significantly associated to education ($\chi^2(3) = 7.077$, $p = 0.069$), with more educated individuals being more likely to have it.

2.1 Self-Control

In this section we provide further analysis on the associations between the self-control and the other variables elicited in the experiment.

Figure 5 displays the distribution of the 13-item Brief Self-control Scale (BSCS) in each treatment. Differences are not significant according to a Mann-Whitney test, $z = 0.472$, $p = 0.637$, as displayed in Table 1 of the manuscript.

In order to distinguish individuals depending on their level of self-control, we assign individuals to two groups, *i)* Individuals with low self-control: individuals whose score belongs to the first quartile of the BSCS distribution, $BSCS \leq 42$, ($N = 106$); *ii)* Others: individuals belonging to the three upper quartiles of the BSCS distribution, $BSCS > 42$, ($N = 292$)

Table 2 reports results of a set of χ^2 and Fisher exact tests and looking at BSCS scores and (some) individual characteristics. The first two columns, report the mean and standard deviations for each of the self-control groups respectively. The rightmost column contains test statistics and p-values of χ^2-tests and Fisher exact tests comparing the distribution of low-self control group with the other group.

As reported before, and as expected, the treatment assignment does not differ between the groups. We do finnd a statistically significant difference with respect to location. A higher fraction of shoppers in the Malmo store belong to the low self-control group. This effect seems to be driven by the presence of an higher percentage of highly educated participants (i.e. participants with a university degree) in Lund, compared to Malmo (59.41% vs 39.33%, $t = 4.173$, $p = 0.000$) and with education having always a statistically significant relationship with the self-control. Differences in the gender composition the two self-control groups are

[3]This is a program of weakly food provision which is popular in Sweden.

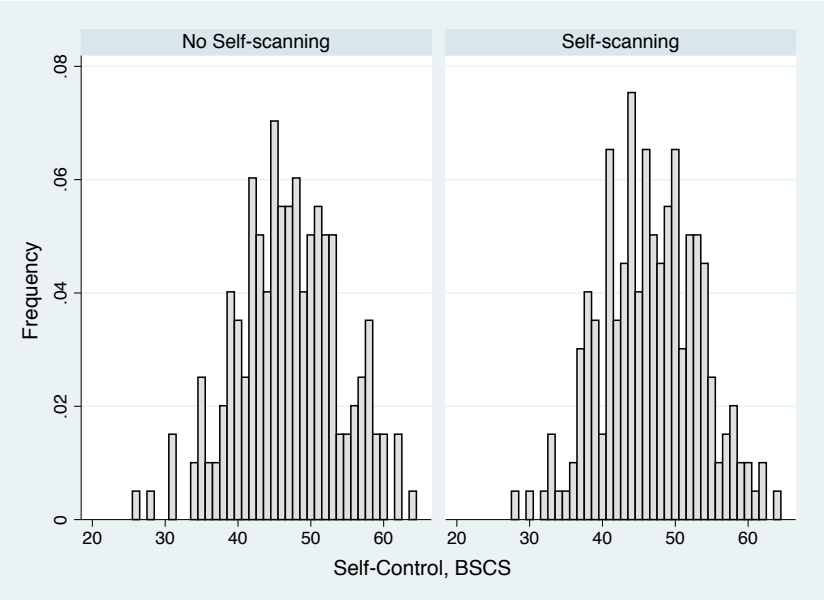

Figure 5: Distribution of the total score of the 13-item Brief Self-control Scale (BSCS)

also statistically significant, with less women belonging to the low self-control group.

Shopping alone rather than in couple is also borderline significantly associated with self control, with single-shopping being more common in the high self-control group. Both the size of the household and the number of children aged between 0=18 living in the household do not display any statistically significant relationship with the self-control. As reported in the paper, income education, always writing a shopping list, having an upper limit on spending and our patience measure are all significantly related to self-control.

3 Length of the shopping trip

In this section we present further details on the total length of the shopping trip. We find that differences depending on the use of self-scanner are not statistically significant, while, Overall, individuals with low self-control have shorter shopping trips than other individuals. Table 3 reports the average length of the shopping trip depending on using the self-scanner or not, and depending on exhibiting low self-control or not. Results of a set of t-tests are also reported for these categories. Using a scanner is associated with slightly longer shopping trips across all self-control groups, but the differences are only statistically significant at the 10% confidence level when using a t-test, while not significant according to a Mann Whitney test. Individuals exhibiting low self-control are faster than other individuals.

Column	(1)	(2)	(3)
Variable	Low Self-Control	Others	Low Self-Control vs Others
Treatment	.509	.497	$\chi^2(1) = 0.051$
	(.502)	(.501)	$p = 0.821$
Malmo	.708	.565	$\chi^2(1) = 6.595$
	(.457)	(.497)	$p = 0.010$
Saturday	.547	.527	$\chi^2(1) = 0.122$
	(.500)	(.500)	$p = 0.727$
Using Cash	.104	.147	$\chi^2(1) = 1.254$
	(.306)	(.355)	$p = 0.263$
Female 1	.574	.734	$\chi^2(1) = 8.974$
	(.497)	(.442)	$p = 0.003$
Shopping alone	.592	.682	$\chi^2(1) = 2.699$
	(.494)	(.467)	$p = 0.100$
Size of the Household	1.829	2.003	Fisher's exact
	(.612)	(.722)	$p = 0.277$
N. children Aged $0 - 18$	.561	.617	Fisher's exact
in the household	(.876)	(.960)	$p = 0.963$
Employment	1.352	1.378	Fisher's exact
	(.909)	(.887)	$p = 0.967$
Education	1.406	1.481	$\chi^2(3) = 18.946$
	(.859)	(.691)	$p = 0.000$
Income Class	2.019	2.358	$\chi^2(3) = 17.718$
	(1.052)	(1.022)	$p = 0.003$
Shopping List	1.226	.887	$\chi^2(3) = 17.416$
	(.843)	(.832)	$p = 0.001$
Upper Limit on Spending	.123	.061	$\chi^2(1) = 4.0288$
	(.330)	(.241)	$p = 0.045$
Patience	3.454	3.838	$\chi^2(1) = 4.0288$
	(1.006)	(1.040)	$p = 0.001$
MS	5.925	5.756	$\chi^2(8) = 10.845$
	(1.930)	(1.901)	$p = 0.211$

Note: The degrees of freedom are reported in parenthesis. The Fisher's exact test is used when one or more cells has an expected frequency of five or less.

Table 2: Relationship between self-control and experimental variables, (Std. Dev. in parenthesis).

4 Probability of being a self-scanner user

In this section we present further evidence on the probability of using the self-scanner presenting the complete estimation of the propensity to report being a self-scanner user or not. The regression estimates are presented in Table 4. In Model 1, we control for gender, shopping alone or in couple, represent the change in the probability of being a self-scanner user for a one unit change in the independent variables. All marginal effects are evaluated at the sample mean. The estimate of the low self-control dummy is positive and significant, confirming the finding from Figure 3 in the manuscript. Individuals with low self-control are more likely to use the self scanner.

	Using Self-scanner	Not Using Self-scanner	Overall	Self-Scanning vs No Self-scanning
Low Self-Control	24.000	22.333	23.192	$t = 0.629$
	(12.400)	(15.952)	(13.134)	$p = 0.531$
	N=51	N=48	N=99	-
Others	27.986	25.169	26.587	$t = 1.496$
	(17.772)	(13.794)	(15.956)	$p = 0.136$
	N=144	N=142	N=286	-
Overall	26.944	24.452	25.714	$t = 1.597$
	(16.599)	(13.852)	(15.336)	$p = 0.111$
	N=195	N=190	N=385	
Low Self-Control vs	$t = 1.478$	$t = 1.228$	$t = 1.905$	-
No Low Self-Control	$p = 0.141$	$p = 0.221$	$p = 0.058$	-

Note. Results are based on $N = 385$ observations for which we have data on the BSCS and for which # items bought> 1. Comparisons are based on a set of t-tests. Results are unchanged when using Mann-Whitney tests, unless specified.

Table 3: Average length of the shopping trip (minutes). Std. Dev. in parenthesis.

This relationship between scanner usage and self-control continues to hold when we add additional socio-economic controls and variables capturing shopping habits (Model 2) and personality traits (Model 3). In all models, the low self-control dummy is positively and significantly associated to being a self-scanner user, with the individuals exhibiting low self-control being about 16% more likely to report being a self-scanner user compared to individuals who do not exhibit low self-control. In addition, considering Models 2 and 3 we find that being in the fourth income quartile has a positive and weakly significant association with being a self-scanning user; individuals in the fourth quartile are 11% more likely to have used a self-scanner compared to the individuals in the first quartile. Other independent variables capturing individual characteristics, shopping habits or personality traits, do not significantly impact on the probability of being a self-scanner user.[4]

Models 4-6 replicate Models 1-3 but use the total score of the BSCS rather than the dummy for individuals with low self-control. Results are basically unchanged.

5 Drop Out

In this section we provide a detailed analysis of the dropouts from the study. As explained in Section 2 of the manuscript, on the basis of our experimental design, participants could drop out from the study in different moments: *before* they were informed about the treatment assignment: i) when the assistants tried to approach them, (but before they were explained the

[4]Interestingly, note that, despite, as showed in section 2.1, individuals with low self-control report to be less patient, in the regression the coefficient for the self-reported patience is not significant, and similarly, we find no difference in the rate of self-reported patience depending on whether the individual is a self-scanner user or not ($t = 0.549$, $p = 0.584$). Therefore, we conclude that self-control is clearly a stronger driver behind the self-scanning usage than patience.

Estimation Method	Probit Regression, Marginal Effects					
Dependent Variable	Using Self-scanner (1=Yes; 0=No)					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Low Self-Control	0.157***	0.171***	0.160***	-.008***	-.009***	-.007**
	(0.050)	(0.055)	(0.055)	(.003)	(.003)	(.003)
Female 1	-.001	0.015	0.021	-.011	0.003	0.008
	(0.045)	(0.049)	(0.048)	(0.044)	(0.047)	(0.047)
Shopping Alone	.054	0.054	0.052	0.042	0.040	0.042
	(0.042)	(0.042)	(0.045)	(0.041)	(0.041)	(0.045)
Age	-	-0.001	0.000	-	-0.001	0.000
		(0.001)	(0.002)		(0.001)	(0.002)
Income Class: Q2	-	0.058	0.048	-	0.060	0.046
		(0.054)	(0.057)		(0.053)	(0.057)
Income Class: Q3	-	0.081	0.084	-	0.077	0.077
		(0.069)	(0.071)		(0.068)	(0.070)
Income Class: Q4	-	0.108*	0.118*	-	0.110*	0.118*
		(0.062)	(0.063)		(0.061)	(0.061)
Upper Limit on Spending	-	-0.082	-0.082	-	-0.070	-0.082
		(0.065)	(0.064)		(0.065)	(0.064)
High Education	-	-0.010	-0.027	-	-0.008	-0.028
		(0.041)	(0.040)		(0.041)	(0.040)
Employed	-	0.005	0.010	-	0.012	0.001
		(0.041)	(0.043)		(0.042)	(0.042)
Share of children (0-18)	-	0.073	0.111	-	0.064	0.101)
In the Household		(0.086)	(0.087)		(0.087)	(0.088)
Shopping List	-	-0.011	-0.015	-	-0.007	-0.008
		(0.022)	(0.021)		(0.021)	(0.021
Basic Arithmetic	-	-	-0.084	-	-	-0.091
			(0.052)			(0.051)
MS (total)	-	-	0.015	-	-	0.014
			(0.011)			(0.010)
Patience (Total)	-	-	-0.006	-	-	-0.007
			(0.019)			(0.019)
Financial Literacy	-	-	0.027	-	-	0.029
			(0.041)			(0.041)
Bank Id on Mobile	-	-	0.002	-	-	0.003
			(0.041)			(0.042)
Fixed Effects (Sessions)	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo (R^2)	0.071	0.073	0.091	0.041	0.065	0.078
Wald χ^2	15.82	20.00	25.57	13.44	19.96	25.56
Log pseudolikelihood	-158.749	-150.856	-138.955	-160.081	-152.545	-141.480
Observations	386	372	354	386	375	357

Note. *, ** and *** indicate significance level at 10%, 5%, and 1%, respectively. The table reports marginal effects of the respective independent variables on the probability of being a self-scanner user for each Probit model. The marginal effects represent the change in the probability of being a self-scanner user for small percentage changes in the independent variables. All marginal effects are evaluated at the sample mean. Robust standard errors are reported in parenthesis.

Table 4: Probability of being a self-scanner user

content of the study); ii) once the assistants explained that participating in the study implied being randomly assigned to use a self-scanner or not. *After* the approached customers where informed about the treatment assignment they could drop out: iii) after they were assigned to the treatment simply refusing to shop in the way prescribed and iv) not completing the experiment (i.e. skipping the data collection at the exit of the supermarket).

Over the seven sessions, our assistant approached 2464 customers. Of these, 2248 (91.23%), were eligible to participate the study.[5] Table 5 reports data on the eligible customers and on the ones who, in different moments, dropped out from the study both for the treatment and the control group. The last column reports results of a set χ^2 tests on the association between dropouts and treatment. Results of all tests are non statistically significant suggesting that dropouts do not vary systematically across treatments. "Drop 1" identifies individuals who went away before receiving any information about the study (or did not stop at all) when the assistant approached them. Overall, 30.47% ($n = 685/2248$) of the eligible participants did so[6], with no significant difference between treatments ($p = 0.226$). Some of the approached participants were excluded since they did not have a loyalty card: this happened in the 29.29% ($N = 456/2248$) of the cases and it was equally likely in the two groups. The 27% of the eligible participants decided not to participate (classified as "Drop 2") after the experiment was explained to them but *before* they were informed about which treatment they were assigned to treatment.[7] Very few participants decided not to participate after they were informed about which treatment they were assignment to (classified as "Drop 3'): 13 over 1113 in the Self-scanning treatment, 15 over 1135 in the No Self-scanning treatment, with no significant difference depending on the treatment assignment ($p = 0.697$).

Of the 455 persons who accepted to participate, 11 did not complete the experiment, 7 in the self-scanning treatment and 4 in the non self-scanning treatment (classified as "Drop 4') since they never showed up at the exit of the grocery store to collect the ticket lottery and fill the survey. Also in this case there is no significant association between not completing the experiment and the treatment assignment according to a Fisher's exact test, $p = 0.544$. Finally, for 5 participants we miss the receipt or the picture takes by the assistant are not readable.

When considering the approached participants who dropped out *before* they were informed about the treatment assignment (i.e. in Drop 1 + Drop 2), we do not find any significant

[5]Of the 216 who were non eligible, 48 (22.22%) were not able to speak Swedish; 7 (3.24%) were entering the building where the grocery store was located just to go to the toilet; 21 were not respecting our eligibility criteria, i.e. had children who entered the store after, or they were shopping in a group of more than 2 adults; 24 declared already having participated the study; and the remaining 116 declared they were not going to shop at that grocery store, or basically ignored the assistants.

[6]Of these 683 participants dropping out at the first stage, 211 said they had no time, while 52 said they were stressed.

[7]Of these 617 individuals, 101 said they really wanted to scan (or entered the grocery store after grabbing a scanner), while 51 really wanted not to scan (or entered the grocery store without scanner); 69(15) said they had not time (or were stressed). Others did not give any explanation but just refused.

	Self-Scanning	No Self-Scanning	Total	χ^2
Eligible	**1113**	**1135**	**2248**	$p = 0.191$
	Dropouts *before* the treatment assignment			
Drop 1	-327	-358	-685	$p = 0.226$
No Loyalty Card	$-222 + (-3)$	$-234 + (-4)$	$-456 + (-7)^*$	$p = 0.397$
Drop 2	-320	-297	-617	$p = 0.539$
	Dropouts *after* the treatment assignment			
Drop 3	-13	-15	-28	$p = 0.697$
Drop 4	-7	-4	-11	$p = 0.364$
Missing receipt	-3	-2	-5	$p = 0.646$
Participants	**218**	**221**	**439**	$p = 0.945$

Note. *We exclude 7 participants for whom we miss information about the loyalty card.

Table 5: Dropout and Participants.

association with the treatment assignment ($p = 0.771$), nor when looking at other observable characteristics recored by the assistant, as gender ($p = 0.205$), shopping alone or in pair ($p = 0.223$) and shopping during weekends vs weekdays, ($p = 0.532$). Finally when considering the participants who dropped *after* they were informed about the treatment assignment (i.e. in Drop 3 + Drop 4) we do not find any significant association with the treatment assignment ($p = 0.752$), nor when looking at other observable characteristics recored by the assistant: gender ($p = 0.707$); using the scanner ($p = 0.156$)) shopping alone or in pair ($p = 0.503$) and shopping during weekends vs weekdays, ($p = 0.254$).

6 Complete estimations and robustness checks

In this section we report the complete estimations for the regressions contained in tables 2-4. We also report some robustness checks for tables 2-4, replacing the dummy Low Self-Control with the total score of the BSCS. In Table 10, 11 and 12 we report additional robustness checks using as dependent variables i) the number of items bought on discount, ii) the number of food items bought, and ii) the number of non-food items bought, respectively.

Estimation Method	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Dependent Variable			OLS Regression Total amount spent (SEK)			
Treatment	-44.636	7.206	10.538	-5.325	-1.763	1.058
	(30.525)	(34.578)	(42.600)	(34.389)	(35.410)	(44.313)
Low Self-Control	16.856	123.094**	50.832	190.772***	201.779***	151.725**
	(36.827)	(60.150)	(72.340)	(60.805)	(60.404)	(72.660)
Treatment x	-	-199.024***	-166.164*	-215.788***	-220.110***	-205.410**
Low Self-Control		(71.642)	(85.823)	(68.504)	(68.292)	(81.880)
Shopping Alone	34.733	39.798	-8.933	35.455	32.521	-27.627
	(34.608)	(34.119)	(39.727)	(33.984)	(35.650)	(42.770)
Female 1	-2.377	4.186	57.119	22.797	33.207	93.304*
	(37.119)	(36.531)	(43.987)	(35.832)	(37.708)	(47.355)
Using Cash	-130.795***	-127.461***	-246.516***	-71.198*	-78.553**	-193.22***
	(36.595)	(35.782)	(38.725)	(37.115)	(38.397)	(45.742)
Length: Q2	187.504***	189.142***	-	211.236***	208.450***	-
	(30.140)	(29.563)		(30.992)	(32.532)	
Length: Q3	337.278***	344.358***	-	345.756***	342.890***	-
	(34.425)	(35.296)		(36.116)	(36.365)	
Length: Q4	570.945***	574.488***	-	574.429***	575.225***	-
	(47.599)	(46.639)		(44.615)	(45.641)	
Age	-	-	-	-0.427	-0.396	.329
				(1.012)	(1.129)	(1.238)
Share of Children (0-18)	-	-	-	87.664	84.566	224.770**
In the household				(75.107)	(77.005)	(97.863)
Income Class: Q2	-	-	-	127.206***	121.085***	79.802*
				(33.043)	(34.508)	(40.998)
Income Class: Q3	-	-	-	139.913***	133.057***	105.604*
				(49.965)	(50.876)	(62.920)
Income Class: Q4	-	-	-	253.083***	240.995***	218.108***
				(51.619)	(53.363)	(63.799)
High Education	-	-	-	27.896	30.144	24.157
				(31.785)	(33.044)	(40.472)
Employed	-	-		65.141**	62.838*	78.118*
				(33.021)	(33.794)	(40.825)
Shopping List	-	-		-15.231	-17.808	-40.736*
				(15.963)	(15.903)	(21.157)
Food box subscription	-	-	-	3.687	7.888	41.952
				(60.039)	(61.364)	(81.634)
Upper Limit on Spending	-	-	-	-222.346***	-223.563***	-171.473**
				(66.777)	(70.111)	(78.366)
Upper Limit on Spending x	-	-	-	281.406***	292.543***	394.353***
Treatment				(86.327)	(90.671)	(117.295)
Upper Limit on Spending x	-	-	-	-4.534	-20.473	-101.863
Low Self-Control				(84.337)	(89.480)	(110.677)
MS (total)	-	-	-	-	-1.356	-1.442
					(7.866)	(10.187)
Patience	-	-	-	-	19.866	34.290**
					(13.302)	(15.918)
Basic Arithmetic	-	-	-	-	-16.429	-10.868
					(38.502)	(46.178)
Financial Literacy	-	-	-	-	26.129	41.913
					(34.874)	(43.578)
Constant	173.361***	152.365***	412.111***	-26.083	-92.323	65.315**
	(60.728)	(58.492)	(70.323)	(86.835)	(117.821)	(146.512)
Fixed Effects (Sessions)	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.379	0.392	0.088	0.500	0.504	0.223
F	19.427	18.637	4.493	12.464	10.526	3.73
Observations	382	382	382	368	356	356

Note. *, ** and *** indicate significance level at 10%, 5%, and 1%,respectively. Robust standard errors are reported in parenthesis. Only participants who buy at least 2 items are included.

Table 6: Complete Estimation supporting Table 2 in the manuscript: Total amount spent (SEK) and Low Self-Control

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Estimation Method	OLS Regression					
Dependent Variable	Total amount spent (SEK)					
Treatment	-48.264	-525.862**	-380.463	-699.731***	-741.298***	-706.266***
	(30.568)	(224.491)	(267.984)	(210.077)	(213.806)	(251.067)
BSCS (total)	-2.552	-7.500**	-3.096	-11.867***	-13.432***	-10.589**
	(2.409)	(3.653)	(4.411)	(3.461)	(3.595)	(4.138)
Treatment x	-	10.177**	7.304	13.683***	14.661***	14.030***
BSCS (total)		(4.766)	(5.679)	(4.438)	(4.543)	(5.329)
Shopping Alone	38.251	43.097	0.349	35.582	31.956	-24.774
	(34.796)	(34.603)	(40.211)	(33.896)	(35.570)	(42.361)
Female1	1.235	6.045	67.012	15.733	26.596	90.623*
	(36.277)	(36.161)	(43.214)	(35.366)	(37.168)	(46.505)
Using Cash	-131.257***	-129.915***	-248.631***	-76.214**	-86.872**	-197.423***
	(36.792)	(36.395)	(38.502)	(37.417)	(38.890)	(45.402)
Income Class: Q2				131.739***	124.916***	83.265**
				(33.461)	(34.770)	(41.896)
Income Class: Q3				134.661***	127.811**	103.271*
				(49.371)	(50.639)	(62.561)
Income Class: Q4				242.908***	229.594***	209.535***
				(51.918)	(53.762)	(64.041)
Budget Constrained				-236.849***	-236.518***	-191.225**
				(66.299)	(69.024)	(78.963)
Budget Constrained x				288.393***	300.217***	402.035***
Treatment				(84.303)	(88.203)	(116.726)
Budget Constrained x				0.531	-0.061	-1.852
BSCS (total)				(2.194)	(2.321)	(2.857)
Constant	291.869**	527.018***	554.934**	577.065***	566.771***	573.743**
	(129.035)	(182.778)	(221.875)	(184.876)	(201.395)	(239.446)
Fixed Effects (Sessions)	Yes	Yes	Yes	Yes	Yes	Yes
Length of the Shopping Trip	Yes	Yes	No	Yes	Yes	No
Shopping Habits	No	No	No	Yes	Yes	Yes
Socio-economics	No	No	No	Yes	Yes	Yes
Personality Traits	No	No	No	No	Yes	Yes
R^2	0.385	0.394	0.083	0.499	0.505	0.225
F	19.351	18.182	4.238	12.046	10.263	3.885
Observations	383	383	383	371	359	359

Note. *, ** and *** indicate significance level at 10%, 5%, and 1%,respectively. Robust standard errors are reported in parenthesis. Only participants who buy at least 2 items are included.

Table 7: Robustness Checks supporting Table 2 in the manuscript: Total amount spent and BSCS

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Estimation Method	OLS Regression					
Dependent Variable	Number of Items Bought (> 1)					
Treatment	-1.370	0.853	1.012	0.197	0.319	0.435
	(1.332)	(1.523)	(1.894)	(1.531)	(1.556)	(1.955)
Low Self-Control	-0.883	3.673	0.563	6.255**	6.567***	4.421
	(1.521)	(2.419)	(2.891)	(2.484)	(2.454)	(2.975)
Shopping Alone	0.404	0.622	-1.424	0.512	0.131	-2.409
	(1.449)	(1.421)	(1.682)	(1.455)	(1.481)	(1.788)
Female 1	-0.441	-0.159	2.215	0.294	0.435	3.097
	(1.654)	(1.632)	(1.913)	(1.583)	(1.665)	(1.991)
Using Cash	-4.986***	-4.843***	-9.979***	-2.604	-2.821	-7.820***
	(1.634)	(1.597)	(1.777)	(1.627)	(1.712)	(2.112)
Length: Q2	8.148***	8.218***	-	8.434***	8.595***	-
	(1.208)	(1.198)		(1.288)	(1.362)	
Length: Q3	14.123***	14.426***	-	14.505***	14.481***	-
	(1.407)	(1.442)		(1.465)	(1.458)	
Length: Q4	24.950***	25.102***	-	25.090***	24.917***	-
	(2.167)	(2.134)		(2.055)	(2.068)	
Treatment x		-8.535***	-7.163**	-9.540***	-9.681***	-9.058***
Low Self-Control		(2.933)	(3.454)	(2.871)	(2.855)	(3.371)
Age	-	-	-	-0.070	-0.043	-0.010
				(0.045)	(0.047)	(0.055)
Share of Children (0-18)	-	-	-	3.429	4.023	10.134**
in the Household				(3.358)	(3.393)	(4.339)
Income Class: Q2	-	-	-	4.096**	3.611**	1.833
				(1.629)	(1.612)	(1.883)
Income Class: Q3	-	-	-	5.982**	5.595**	4.401
				(2.450)	(2.511)	(2.981)
Income Class: Q4	-	-	-	8.145***	7.491***	6.487**
				(2.418)	(2.397)	(2.801)
High Education	-	-	-	0.941	1.289	1.046
				(1.328)	(1.367)	(1.683)
Employed	-	-	-	1.311	1.614	2.296
				(1.556)	(1.434)	(1.765)
Shopping List	-	-	-	-0.776	-0.823	-1.821**
				(0.649)	(0.654)	(0.868)
Food box subscription	-	-	-	0.957	0.902	2.354
				(2.796)	(2.863)	(3.698)
Upper Limit on Spending	-	-	-	-9.399***	-9.454***	-7.250**
				(2.893)	(2.857)	(3.464)
Upper Limit on Spending	-	-	-	14.515***	15.079***	19.458***
x Treatment				(3.880)	(3.894)	(5.529)
Upper Limit on Spending	-	-	-	-1.073	-1.713	-5.125
x Low Self-control				(3.636)	(3.645)	(5.135)
MS(total)	-	-	-	-	0.051	0.061
					(0.350)	(0.461)
Patience	-	-	-	-	0.434	1.055
					(0.598)	(0.726)
Basic Arithmetic	-	-	-	-	-2.482	-2.287
					(1.715)	(2.076)
Financial Literacy	-	-	-	-	1.154	1.862
					(1.507)	(1.830)
Constant	10.584***	9.684***	20.817***	6.959*	5.194	11.684*
	(2.532)	(2.422)	(3.011)	(3.620)	(5.267)	(6.616)
Fixed Effects (Sessions)	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.375	0.389	0.082	0.469	0.477	0.190
F	19.639	18.385	4.061	11.778	9.699	3.161
Observations	382	382	382	368	356	356

Note. *, ** and *** indicate significance level at 10%, 5%, and 1%,respectively. Robust standard errors are reported in parenthesis. Only participants who buy at least 2 items are included.

Table 8: Complete Estimation supporting Table 3 in the manuscript: Number of Items bought and Low Self-Control

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Estimation Method	OLS Regression					
Dependent Variable	Number of Items Bought (> 1)					
Treatment	-1.524	-15.144	-9.045	-23.076**	-25.954***	-24.549**
	(1.327)	(9.256)	(10.991)	(9.359)	(9.128)	(10.688)
BSCS (total)	0.001	-0.140	0.048	-0.299*	-0.379***	-0.259
	(0.099)	(0.149)	(0.185)	(0.153)	(0.145)	(0.172)
Treatment x	-	0.290	0.170	0.447**	0.511***	0.486**
BSCS (total)		(0.198)	(0.236)	(0.199)	(0.194)	(0.228)
Shopping Alone	0.689	0.827	-0.939	0.604	0.244	-2.138
	(1.479)	(1.461)	(1.717)	(1.458)	(1.481)	(1.772)
Female1	-0.172	-0.034	2.699	0.094	0.288	3.133
	(1.629)	(1.642)	(1.905)	(1.580)	(1.659)	(1.971)
Using Cash	-4.944***	-4.906***	-10.012***	-2.714*	-3.001*	-7.823***
	(1.629)	(1.609)	(1.755)	(1.627)	(1.719)	(2.084)
Income Class: Q2	-			4.237**	3.771**	1.980
				(1.637)	(1.617)	(1.912)
Income Class: Q3	-			5.953**	5.569**	4.501
				(2.476)	(2.542)	(3.020)
Income Class: Q4	-			7.900***	7.175***	6.282**
				(2.404)	(2.369)	(2.779)
Budget Constrained	-			-9.560***	-9.659***	-7.771**
				(2.989)	(2.977)	(3.571)
Budget Constrained x	-			14.214***	14.941***	19.345***
Treatment				(3.915)	(3.907)	(5.535)
Budget Constrained x	-			0.000	-0.027	-0.101
BSCS (total)				(0.095)	(0.094)	(0.132)
Constant	9.862*	16.568**	17.749*	22.123***	23.227**	23.309**
	(5.517)	(7.693)	(9.379)	(8.019)	(9.047)	(10.750)
Fixed Effects (Sessions)	Yes	Yes	Yes	Yes	Yes	Yes
Length of the Shopping Trip	Yes	Yes	No	Yes	Yes	No
Shopping Habits	No	No	No	Yes	Yes	Yes
Socio-economics	No	No	No	Yes	Yes	Yes
Personality Traits	No	No	No	No	Yes	Yes
R^2	0.380	0.383	0.072	0.459	0.469	0.183
F	19.833	18.472	3.515	11.570	9.502	3.155
Observations	383	383	383	371	359	359

Note. *, ** and *** indicate significance level at 10%, 5%, and 1%,respectively. Robust standard errors are reported in parenthesis. Only participants who buy at least 2 items are included.

Table 9: Robustness check supporting Table 3 in the manuscript: Number of Items bought and BSCS

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Estimation Method	OLS Regression					
Dependent Variable	Number of Items Bought on discount (if Number of Items Bought > 1)					
Treatment	-0.312	0.103	0.133	0.047	-0.102	-0.080
	(0.636)	(0.760)	(0.846)	(0.777)	(0.793)	(0.889)
Low Self-Control	-1.833**	-0.982	-1.942*	-0.376	-0.289	-0.965
	(0.724)	(1.057)	(1.146)	(1.169)	(1.198)	(1.290)
Treatment x	-	-1.594	-1.135	-1.769	-1.668	-1.450
Low Self-Control		(1.316)	(1.414)	(1.399)	(1.409)	(1.483)
Shopping Alone	-1.244*	-1.203	-1.813**	-1.216	-1.633*	-2.429***
	(0.734)	(0.734)	(0.768)	(0.785)	(0.831)	(0.851)
Gender1	-1.013	-0.961	-0.234	-0.869	-1.168	-0.321
	(0.763)	(0.759)	(0.793)	(0.747)	(0.814)	(0.843)
Using Cash	-1.800**	-1.774**	-3.479***	-1.469*	-1.581*	-3.212***
	(0.779)	(0.781)	(0.795)	(0.887)	(0.936)	(0.999)
Length: Q2	1.880***	1.893***		2.115***	2.301***	-
	(0.664)	(0.670)		(0.717)	(0.751)	
Length: Q3	4.517***	4.574***		4.383***	4.548***	-
	(0.765)	(0.768)		(0.805)	(0.799)	
Length: Q4	7.642***	7.670***		7.587***	7.747***	-
	(0.948)	(0.947)		(0.972)	(0.996)	
Age	-	-	-	0.015	0.034	0.046*
				(0.022)	(0.025)	(0.026)
Share of Children (0-18)	-	-	-	2.957*	3.258*	5.244***
in the Household				(1.684)	(1.703)	(1.846)
Income Class: Q2	-	-	-	0.956	0.968	0.417
				(0.795)	(0.792)	(0.831)
Income Class: Q3	-	-	-	1.370	1.516	1.144
				(1.185)	(1.196)	(1.279)
Income Class: Q4	-	-	-	0.993	0.936	0.665
				(1.021)	(1.034)	(1.073)
High Education	-	-	-	0.934	1.225*	1.161
				(0.680)	(0.702)	(0.757)
Employed	-	-	-	0.153	0.051	0.276
				(0.828)	(0.800)	(0.835)
Shopping List	-	-	-	0.106	0.093	-0.222
				(0.345)	(0.350)	(0.398)
Food box subscription	-	-	-	2.165*	2.057*	2.543*
				(1.189)	(1.194)	(1.331)
Upper Limit on Spending	-	-	-	-1.920	-2.234	-1.514
				(2.095)	(2.021)	(2.190)
Treatment x	-	-	-	2.930	3.406	4.718*
Upper Limit on Spending				(2.211)	(2.131)	(2.477)
Low Self-Control x	-	-	-	-0.046	-0.240	-1.211
Upper Limit on Spending				(2.122)	(2.048)	(2.346)
MS(total)	-	-	-	-	0.196	0.203
					(0.162)	(0.192)
Patience	-	-	-	-	0.214	0.401
					(0.314)	(0.338)
Basic Arithmetic	-	-	-	-	-0.751	-0.718
					(0.946)	(1.008)
Financial Literacy	-	-	-	-	-0.377	-0.140
					(0.843)	(0.889)
Constant	5.420***	5.252***	8.598***	2.441	0.643	2.514
	(1.226)	(1.214)	(1.322)	(1.828)	(2.687)	(2.996)
Fixed Effects (Sessions)	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.239	0.242	0.080	0.264	0.282	0.132
F	9.387	8.813	2.970	5.589	4.944	2.007
Observations	382	382	382	371	359	359

Note. *, ** and *** indicate significance level at 10%, 5%, and 1%,respectively. Robust standard errors are reported in parenthesis. Only participants who buy at least 2 items are included.

Table 10: Robustness check: Number of Items bought on discount and Low Self-Control

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Estimation Method	OLS Regression					
Dependent Variable	Number of Food Items Bought (if Number of Items Bought > 1)					
Treatment	-0.367	1.256	1.379	0.853	0.921	1.003
	(1.185)	(1.377)	(1.701)	(1.388)	(1.434)	(1.780)
Low Self-Control	-1.396	2.257	-0.491	4.114*	4.483**	2.631
	(1.310)	(2.103)	(2.547)	(2.154)	(2.182)	(2.576)
Treatment x	-	-6.859***	-5.611*	-7.254***	-7.269***	-6.735**
Low Self-Control		(2.589)	(3.088)	(2.606)	(2.600)	(3.019)
Shopping Alone	-0.247	0.125	-1.682	-0.010	-0.283	-2.504
	(1.323)	(1.288)	(1.533)	(1.307)	(1.353)	(1.611)
Female 2	0.061	0.413	2.481	0.619	0.862	3.217*
	(1.514)	(1.484)	(1.709)	(1.464)	(1.558)	(1.809)
Using Cash	-4.509***	-4.454***	-9.073***	-2.632*	-2.882**	-7.290***
	(1.372)	(1.343)	(1.528)	(1.389)	(1.458)	(1.825)
Length: Q2	6.688***	6.799***		7.158***	7.279***	
	(1.011)	(1.014)		(1.075)	(1.140)	
Length: Q3	12.677***	12.940***		12.532***	12.554***	
	(1.297)	(1.317)		(1.340)	(1.353)	
Length: Q4	21.555***	22.028***		21.901***	21.773***	
	(1.978)	(1.947)		(1.874)	(1.924)	
Age	-	-	-	-0.030	-0.010	0.019
				(0.039)	(0.040)	(0.048)
Share of Children (0-18)	-	-	-	3.544	3.921	9.268**
in the Household				(2.953)	(2.975)	(3.825)
Income Class: Q2	-	-	-	3.279**	3.046**	1.504
				(1.346)	(1.382)	(1.670)
Income Class: Q3	-	-	-	5.079**	4.976**	3.953
				(2.070)	(2.160)	(2.583)
Income Class: Q4	-	-	-	7.221***	6.816***	6.017**
				(2.139)	(2.144)	(2.525)
High Education	-	-	-	1.241	1.440	1.216
				(1.202)	(1.246)	(1.495)
Employed	-	-	-	1.542	1.640	2.208
				(1.269)	(1.263)	(1.538)
Shopping List	-	-	-	-0.513	-0.557	-1.438*
				(0.603)	(0.600)	(0.763)
Food box subscription	-	-	-	1.613	1.677	2.953
				(2.288)	(2.334)	(3.102)
Upper Limit on Spending	-	-	-	-6.080**	-6.153**	-4.241
				(2.687)	(2.687)	(3.256)
Treatment x	-	-	-	11.960***	12.548***	16.370***
Upper Limit on Spending				(3.563)	(3.615)	(5.113)
Low Self-control x	-	-	-	-1.504	-2.319	-5.247
Upper Limit on Spending				(3.363)	(3.456)	(4.866)
MS(total)	-	-	-	-	0.136	0.146
					(0.299)	(0.402)
Patience	-	-	-	-	0.693	1.234*
					(0.538)	(0.646)
Basic Arithmetic	-	-	-	-	-2.138	-2.012
					(1.573)	(1.917)
Financial Literacy	-	-	-	-	1.253	1.874
					(1.389)	(1.634)
Constant	8.067***	7.118***	16.907***	2.613	-0.749	4.906
	(2.572)	(2.478)	(2.916)	(3.369)	(4.671)	(5.573)
Fixed Effects (Sessions)	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.365	0.387	0.089	0.456	0.463	0.196
F	18.762	17.721	4.456	10.990	9.084	3.284
Observations	383	382	382	371	359	359

Note. *, ** and *** indicate significance level at 10%, 5%, and 1%,respectively. Robust standard errors are reported in parenthesis. Only participants who buy at least 2 items are included.

Table 11: Robustness check: Number of Food Items bought and Low Self-Control

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Estimation Method	OLS Regression					
Dependent Variable	Number of Non-Food Items Bought (if Number of Items Bought > 1)					
Treatment	-1.132*	-0.403	-0.367	-0.577	-0.524	-0.503
	(0.629)	(0.523)	(0.533)	(0.573)	(0.577)	(0.583)
Low Self-Control	0.507	1.416	1.054	1.584	1.509	1.274
	(0.723)	(1.258)	(1.283)	(1.434)	(1.306)	(1.352)
Treatment x	-	-1.676	-1.552	-1.831	-1.941	-1.909
Low Self-Control		(1.333)	(1.360)	(1.440)	(1.414)	(1.462)
Shopping Alone	0.807	0.497	0.258	0.671	0.576	0.286
	(0.603)	(0.479)	(0.485)	(0.525)	(0.564)	(0.558)
Female 2	-0.402	-0.572	-0.266	-0.443	-0.526	-0.186
	(0.787)	(0.758)	(0.709)	(0.799)	(0.812)	(0.757)
Using Cash	-0.524	-0.388	-0.907*	0.044	0.096	-0.454
	(0.607)	(0.584)	(0.524)	(0.659)	(0.704)	(0.632)
Length: Q2	1.503**	1.420*		1.300*	1.350	
	(0.736)	(0.731)		(0.771)	(0.843)	
Length: Q3	1.460***	1.486***		1.618***	1.571***	
	(0.552)	(0.554)		(0.588)	(0.605)	
Length: Q4	3.672***	3.075***		3.181***	3.129***	
	(1.039)	(0.830)		(0.886)	(0.936)	
Age	-	-	-	-0.036*	-0.027	-0.025
				(0.019)	(0.019)	(0.017)
Share of Children (0-18)	-	-	-	0.238	0.480	1.137
in the Household				(1.004)	(1.019)	(1.065)
Income Class: Q2	-	-	-	0.741	0.468	0.251
				(0.788)	(0.794)	(0.762)
Income Class: Q3	-	-	-	0.711	0.399	0.263
				(0.934)	(0.981)	(1.003)
Income Class: Q4	-	-	-	0.276	-0.052	-0.192
				(0.789)	(0.888)	(0.890)
High Education	-	-	-	-0.208	-0.061	-0.111
				(0.546)	(0.523)	(0.542)
Employed	-	-	-	0.174	0.405	0.459
				(0.691)	(0.615)	(0.650)
Shopping List	-	-	-	-0.169	-0.176	-0.302
				(0.295)	(0.296)	(0.319)
Food box subscription	-	-	-	-0.658	-0.783	-0.653
				(0.932)	(0.948)	(0.980)
Upper Limit on Spending	-	-	-	-3.136***	-3.097***	-2.898***
				(0.737)	(0.752)	(0.756)
Treatment x	-	-	-	2.146*	2.114*	2.726**
Upper Limit on Spending				(1.189)	(1.153)	(1.162)
Low Self-control x	-	-	-	0.674	0.846	0.353
Upper Limit on Spending				(1.152)	(1.099)	(1.118)
MS(total)	-	-	-	-	-0.048	-0.047
					(0.150)	(0.159)
Patience	-	-	-	-	-0.277	-0.192
					(0.395)	(0.383)
Basic Arithmetic	-	-	-	-	-0.169	-0.146
					(0.900)	(0.870)
Financial Literature	-	-	-	-	-0.017	0.055
					(0.593)	(0.626)
Constant	2.339*	2.566**	3.910***	3.806**	4.950*	5.867*
	(1.223)	(1.156)	(1.258)	(1.594)	(2.734)	(3.050)
Fixed Effects (Sessions)	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.074	0.074	0.0329	0.108	0.102	0.062
F	1.764	1.868	0.83	2.362	1.845	1.504
Observations	383	382	382	371	359	359

Note. *, ** and *** indicate significance level at 10%, 5%, and 1%,respectively. Robust standard errors are reported in parenthesis. Only participants who buy at least 2 items are included.

Table 12: Robustness check: Number of Non-Food Items bought and Low Self-Control

	Model 1	Model 2	Model 3	Model 4
Estimation Method	OLS Regression			
Dependent Variable	Average time used per item (minutes)			
Treatment	0.168	-0.006	0.094	0.089
	(0.141)	(0.142)	(0.114)	(0.118)
Low Self-Control	0.124	-0.227	-0.421**	-0.400**
	(0.176)	(0.228)	(0.172)	(0.175)
Shopping Alone	0.250*	0.234*	0.191	0.180
	(0.137)	(0.136)	(0.130)	(0.132)
Female 1	0.039	0.015	0.025	0.033
	(0.164)	(0.168)	(0.131)	(0.150)
Using Cash	0.655**	0.647**	0.255	0.224
	(0.278)	(0.273)	(0.174)	(0.181)
Treatment x	-	0.661*	0.728**	0.721**
Low Self-Control		(0.382)	(0.307)	(0.314)
Age	-	-	0.010*	0.008
			(0.005)	(0.006)
Share of Children (0-18)	-	-	-0.124	-0.147
in the Household			(0.262)	(0.273)
Income Class: Q2	-	-	-0.199	-0.187
			(0.169)	(0.177)
Income Class: Q3	-	-	-0.364*	-0.373*
			(0.214)	(0.216)
Income Class: Q4	-	-	-0.495**	-0.494**
			(0.192)	(0.196)
High Education	-	-	-0.165	-0.187
			(0.129)	(0.131)
Employed	-	-	-0.223	-0.219
			(0.160)	(0.167)
Shopping List	-	-	0.034	0.025
			(0.074)	(0.078)
Food box subscription	-	-	0.134	0.150
			(0.175)	(0.180)
Upper Limit on Spending	-	-	1.824***	1.860***
			(0.625)	(0.608)
Upper Limit on Spending x	-	-	-2.233***	-2.224***
Treatment			(0.606)	(0.585)
Upper Limit on Spending x	-	-	-0.354	-0.347
Low Self-Control			(0.681)	(0.664)
MS (total)	-	-	-	-0.012
				(0.034)
Patience	-	-	-	- 0.006
				(0.059)
Basic Arithmetic	-	-	-	0.428***
				(0.154)
Financial Literacy	-	-	-	-0.022
				(0.151)
Constant	0.956***	1.025***	1.089***	0.914*
	(0.215)	(0.213)	(0.391)	(0.541)
Fixed Effects (Sessions)	Yes	Yes	Yes	Yes
R-squared	0.078	0.089	0.230	0.240
F	1.959	1.931	3.087	2.668
Observations	376	376	362	351

Note. *, ** and *** indicate significance level at 10%, 5%, and 1%, respectively. Robust standard errors are reported in parenthesis. Only participants who buy at least two items are included.

Table 13: Complete Estimations supporting Table 4 in the manuscript: Average time used for item bought

	Model 1	Model 2	Model 3	Model 4
Estimation Method	OLS Regression			
Dependent Variable	Average time used per item (minutes)			
	Model 1	Model 2	Model 3	Model 4
Treatment	0.175	1.424	2.268**	2.400**
	(0.141)	(1.313)	(0.928)	(0.944)
BSCS (total)	0.002	0.015	0.029***	0.031***
	(0.012)	(0.012)	(0.011)	(0.011)
Treatment x	-	-0.027	-0.042**	-0.046**
BSCS (total)		(0.027)	(0.019)	(0.020)
Shopping Alone	0.228*	0.216	0.174	0.168
	(0.134)	(0.136)	(0.126)	(0.128)
Female1	0.004	-0.012	0.029	0.035
	(0.172)	(0.179)	(0.133)	(0.151)
Using Cash	0.647**	0.646**	0.273	0.251
	(0.277)	(0.274)	(0.172)	(0.181)
Income Class: Q2	-	-	-0.219	-0.208
			(0.171)	(0.176)
Income Class: Q3	-	-	-0.361*	-0.372*
			(0.216)	(0.219)
Income Class: Q4	-	-	-0.477**	-0.470**
			(0.190)	(0.194)
Budget Constrained	-	-	1.829***	1.861***
			(0.636)	(0.622)
Budget Constrained x	-	-	-2.271***	-2.278***
Treatment			(0.603)	(0.583)
Budget Constrained x	-	-	-0.009	-0.008
BSCS (total)			(0.019)	(0.019)
Constant	0.932	0.311	-0.305	-0.451
	(0.670)	(0.636)	(0.625)	(0.778)
Fixed Effects (Sessions)	Yes	Yes	Yes	Yes
Socio-Economics	No	Yes	Yes	Yes
Shopping Habits	No	Yes	Yes	Yes
Personality Traits	No	No	Yes	Yes
R^2	0.078	0.082	0.226	0.236
F	2.004	1.929	3.210	2.800
Observations	377	377	365	354

Note. *, ** and *** indicate significance level at 10%, 5%, and 1%, respectively. Robust standard errors are reported in parenthesis. Only participants who buy at least two items are included.

Table 14: Robustness Checks supporting Table 4 in the manuscript: Average time used for item bought and BSCS

7. Experimental Instruction and Report Sheet filled by the assistants at the entrance of the store

On the following pages, the protocol used by the assistants is described together with the report sheet they used. In addition, the questionnaire filled in by the participants is displayed at the end.

7.1. Experimental Instruction

At the entrance of the store

Approach only adults who shop alone or in pair. We will not approach those with children.

Before approaching, please fill in the top part of the **Assistant information sheet**.

Information to the potential participant:

We come from Lund University and we are conducting a survey on consumer choice. I wonder whether I may ask you one or two questions?

Fill in the end part of the **Assistant information sheet:**

1. *Do you have loyalty card?* **No***: Thank you very much for your time.*
   Yes: (proceed)

2. *Have you used this type of scanner before* (point to scanner)? Yes/No

Would you like to participate in a study where you may or may not use a scanner? Your participation will be rewarded with a Trisslott (show the lottery ticket). All you need to do is to shop, answer a few questions and hand over your receipt on the way out.

No: If the person refuses it is a **Drop-out:** *Thank you for your time. Have a nice day!*

Yes: *Doing your shopping here today, please use* (look at the top right corner on the **Assistant information sheet**:

- *Scanner.* Top right corner says S.
- *Do not use a scanner/shop as usual* (if group 2) Top right corner says NS.

Hand over this coupon at the exit, answer some questions and hand over your receipt.

Take a coupon with participant ID stickers. Stick Del 1 of the ID stickers to the **Assistant information sheet.** Del 2 and Del 3 of the ID stickers remain attached to the coupon.

For those who have not used a scanner before (group 1) or have not used a scanner in this food chain, you might wish to include:

As you have a loyalty card, using scanner is very simple. Simply go to Förköpsbutiken and say that you wish to use self-scanning and they will help you. It will only take a minute. Once your card is registered for self-scanning, you go and swipe your card next to the screen and follow the instructions.

If needed*: take the scanner that lights up and during your shopping you scan all the bar codes. Please note that you need to weigh and print the bar codes for fruit and vegetable. When you finished your shopping, you put your scanner back onto the rack at the cashiers and pay at the assigned terminals. There are clear and visible signs on how to proceed both at the start and the exit.*

If the person asks to do the opposite at this point: *Unfortunately, to have reliable results from the study, we cannot change whether you will use a scanner or not as this is randomly determined. We hope that you will find it interesting to do your shopping also (using/not using a scanner).*

If the person refuses it is a **Drop-out:** *Thank you for considering taking part in our survey. Have a nice day!*

If you have any comments that you think may be important for us to know about and that we should take into consideration for the final study, or any deviations or strange behavior, please write this in the **Comments** box on the **Assistant information sheet**.

All **Assistant information sheets** are collected in a box no matter whether the person participated or the approached person dropped out at some stage.

At the exit of the store

At this point, we will hand over a survey to the participant to fill in, collect it and the participant's receipt and give him/her a Trisslott.

Please fill in this survey, it will only take five minutes, please also fill in your name on the coupon. When you have finished the survey, please give it back to me together with your receipt and the coupon and I will give you a Trisslott. Of course, I will put the coupon with your name in a different box as your participation is anonymous.

When the survey is filled in put one sticker with the participant ID from the coupon onto the survey and the other sticker onto the back of the receipt. Put them in a box and put the coupon in another box.

If the person does not want to hand over the receipt, perhaps due to buying an expensive good with warranty, we can take a photo of the receipt but then we also need to register the photo number or something on the receipt on the sticker with the participant ID.

7.2. Report Sheet filled by the assistants at the entrance of the store.

The next two pages display the information sheets used by the assistants. The S and NS indicates the treatment allocation.

Assistant information sheet:

S

Background information:

Time approached:	(hh:mm)

Single:	Couple:

Man:	Woman:

Questions to the subject:

Do you have a loyalty card?	Yes:	No (stop):

Have you used this type of scanner before?	Yes:	No:

Would you like to participate in a study where you may or may not use a scanner? Your participation will be rewarded with a trisslott. All you need to do is to shop, answer a few questions and hand over your receipt on the way out.

Would you like to participate?	Yes:	No:

Inform the participant that s/he has been assigned to scan or not to scan

If yes:	Assign:	Drop-out

Comments:

Assistant information sheet:

NS

Background information:

Time approached:	(hh:mm)

Single:	Couple:

Man:	Woman:

Questions to the subject:

Do you have a loyalty card?	Yes:	No (stop):

Have you used this type of scanner before?	Yes:	No:

Would you like to participate in a study where you may or may not use a scanner? Your participation will be rewarded with a trisslott. All you need to do is to shop, answer a few questions and hand over your receipt on the way out.

Would you like to participate?	Yes:	No:

Inform the participant that s/he has been assigned to scan or not to scan

If yes:	Assign:	Drop-out

Comments:

7.3 Survey filled by the participants at the exit of the store

SURVEY

Your answers will be used for research purposes only and kept strictly confidential.

1. **Age:** _____years

2. **Country of birth**:_____

3. **What is your household's monthly net income (i.e. after taxes) in kronor?**
   ☐ less than 15 000 ☐ 15 000 to 24 999 ☐ 24 999 to 34 999 ☐ 35 000 to 44 999
   ☐ 44 999 to 54 999 ☐ 54 999 to 69 999 ☐ more than 70 000

4. **Size of household:** _____adults _____children living at home (0-18 Years)

5. **Occupation:** ☐ Student ☐ Employed ☐ Self-employed ☐ Retired ☐ Other

6. **What is your highest level of education?**
   ☐ Primary school ☐ Upper secondary school ☐ College/University ☐ Other

7. **How would you have done your shopping today if you had not participated in this survey?**
   ☐ I would have used self-scanning ☐ I would not have used self-scanning

8. **Do you usually do the shopping in your household?** ☐ Yes ☐ No

9. **How often do you do grocery shopping?**
   ☐ Several times every week ☐ Several times a month ☐ 1-2 times a month
   ☐ 1-2 times every half-year ☐ a few times a year

10. **Do you write a shopping list before you do your grocery shopping?**
    ☐ Yes, I write a detailed list ☐ Yes, but I only include the most important items ☐ No

11. **How much do you usually spend on a shopping trip similar to the one you had today?**_____kr.

12. **Did you buy everything that you needed today?** ☐ Yes ☐ No

13. **Did you decide not to buy an item today because you found it too expensive?** ☐ Yes ☐ No

14. **Did you have an upper limit on your spending that you wished to stick to today?**
    ☐ No ☐ Yes **If yes, what was the limit:**_____kr

15. Think of the last 10 times you did a shopping trip similar to the one you did today. How many times did you use self-scanning?_____times

16. How long have you used self-scanning, in this shop, or in other shops (e.g. ICA, Coop)?

☐ I have never used a scanner ☐ I signed up today ☐ Less than a month
☐ Less than six months ☐ Less than a year ☐ More than a year

17. What is/would be your main reason for using scanner? ☐ Time Saving ☐ Convenience
☐ Better spending control ☐ Other: _____

18. Do you have Mobile bankID? ☐ Yes ☐ No

Please, turn page

19. Using the scale provided, please indicate how much each of the following statements reflects how you typically are:

	Completely disagree				**Completely agree**
I am good at resisting temptation	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
I have a hard time breaking bad habits	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
I am lazy	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
I say inappropriate things	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
I do certain things that are bad for me, if they are fun	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
I refuse things that are bad for me	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
I wish I had more self-discipline	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
People would say that I have an iron self-discipline	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Pleasure and fun sometimes keep me from getting work done	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
I have trouble concentrating	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
I am able to work effectively toward long-term goals	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sometimes I can't stop myself from doing something, even if I know it is wrong	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
I often act without thinking through the alternatives	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
No matter how satisfied I am with my job, it's only right for me to be on the lookout for better opportunities	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
When I am in the car listening to the radio, I often check other stations to see if something better is playing, even if I am relatively satisfied with what I am listening to	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
I am in general a person who shows great patience	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

Finally, we would like to ask you some questions which assess how people use numbers in everyday life.

20. **If 5 people all have the winning numbers in the lottery and the prize is two million kronor, how much will each of them get? _____ kr.**

21. **Let's say you have 200 kronor in a savings account. The account earns ten percent interest per year. How much would you have in the account at the end of two years? _____ kr.**

Thanks for you participation!

Comments: