ARTICLE



The acceptability of behavioural interventions in financial decision-making

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Abstract

Financial policymakers increasingly rely on behavioural insights to protect the interests of consumers. However, little is known about how citizens feel about interventions designed to nudge their financial behaviour. Most literature on the acceptability of behavioural interventions focuses on the health domain. To address this gap, we present the results of an experiment on the acceptability of seven financial behavioural interventions (N =684, members of a panel of the Dutch Authority for the Financial Markets). We investigate the role of the agent implementing the intervention (policymaker versus financial company) and perceived effectiveness in relation to the acceptability of these interventions. The acceptability of behavioural interventions in financial decision-making appears to be lower than the acceptability levels found in previous studies. We find no effect of the agent on acceptability. Perceived effectiveness is strongly correlated with acceptability, but only perceived effectiveness in influencing one's own decisions has a consistently positive relationship with acceptability. Perceived effectiveness in influencing others' decisions has either no, a positive, or a negative relationship with acceptability. These results highlight that acceptability appears to be at least partly domain-specific and show that we have only just begun understanding the acceptability of behavioural interventions and its drivers.

Keywords: behavioural interventions; public acceptability; nudging; financial decision-making

The acceptability of behavioural interventions in financial decision-making

Policymakers are increasingly applying behavioural insights and instruments to facilitate, influence or steer the behaviour of the public. Behavioural interventions are recognised as particularly useful for financial policymakers, regulators and others interested in improving financial decision-making (Frydman and Camerer, 2016; Lefevre and Chapman, 2017). This is because 'Financial decisions are among the most important life-shaping decisions that people make.' (Frydman and Camerer,

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2016, p. 661), yet there are many well-documented ways in which consumers deviate from optimal decision-making when managing their money (Frydman and Camerer, 2016; Beshears *et al.*, 2018).

It is also increasingly recognised that understanding people's attitudes towards policy interventions (behavioural or otherwise) is critical for their successful implementation (Page and Shapiro, 1983; Tannenbaum *et al.*, 2017). In recent years, the number of studies investigating people's attitudes towards behavioural policy interventions has grown rapidly (Michaelsen, 2021). However, as we will discuss in the next section, these studies do not provide much insights into the acceptability of behavioural interventions in *financial* decision-making. With the present research, we aim to partially fill this gap in our understanding.

Overview of previous research

We started with searching for relevant research publications concerning the acceptability of behavioural interventions. We searched Web of Science and Google Scholar for English-language papers (published, working papers and pre-prints) with variations on the search terms *acceptability*, *support*, *behavioural intervention* and *nudge*. We also used the references and citations of relevant literature to identify other relevant studies.

We selected studies that measure support for, or acceptability of, interventions as a dependent variable, and that include at least one behavioural intervention. These studies range from surveys where people are asked to rate the support for or acceptability of a number of interventions, to experiments with scenarios or descriptions in which one or more aspects of the intervention are manipulated. Support and acceptability refer to people's responses to questions like 'Do you find the described policy acceptable?' (Hagman *et al.*, 2015, p. 444) or 'Would you support a policy of ...?' (Jung and Mellers, 2016, p. 66). We identified 32 relevant studies. Details on all 32 studies can be found in Supplementary Table A1 in Appendix 1. Below, we report the main findings from this literature review.

What is known about the acceptability of behavioural interventions in financial decision-making?

None of the studies in our literature review focused exclusively on financial decisionmaking. In contrast, 11 focused exclusively on health-related behaviours (of which eight on healthy eating). When an example of a financial intervention was included in a study, this was most commonly a pension enrolment default. Thus, little is known about the acceptability of behavioural interventions in financial decision-making.

In the studies conducted so far, behavioural interventions commonly received higher support and acceptability scores than more intrusive and/or costly interventions like bans or taxes but lower support and acceptability scores than purely information- or education-based interventions. Djupegot and Hansen (2019) noted that the high support for behavioural interventions found in many studies could very well be the result of the focus on health in general, and healthy eating in particular, rather than of high support for the interventions *per se*. They argue that healthy eating is a less controversial policy goal than many others because its benefits are widely accepted at both the individual and societal level. This argument is supported by Gold *et al.* (2023), who compared acceptability across several domains and found that the acceptability of their financial intervention was significantly lower than the acceptability of various health interventions. As we will discuss below, our own data support this argument as well.

Agent, perceived effectiveness and acceptability of behavioural interventions

Our review of the literature revealed two important factors associated with the acceptability of interventions: the agent of the intervention (i.e., who is responsible for the intervention) and the perceived effectiveness of the intervention (cf. Banerjee *et al.*, 2021).

Agent

Six studies (Bos *et al.*, 2015; Tannenbaum *et al.*, 2017; Arad and Rubinstein, 2018; Evers *et al.*, 2018; Bang *et al.*, 2020; Krisam *et al.*, 2021) have identified an intervention's agent as one of the factors influencing acceptability. Whether and how to disclose the agent of an intervention is a relevant question for policymakers (cf. Tannenbaum *et al.*, 2017). Five of these studies (Bos *et al.*, 2015; Tannenbaum *et al.*, 2017; Arad and Rubinstein, 2018; Bang *et al.*, 2020; Krisam *et al.*, 2017) use an experimental design and can provide causal evidence on the link between agent and acceptability. The results are mixed. Most studies found lower support for interventions implemented by governments than by other agents like firms and experts (Bos *et al.*, 2015; Arad and Rubinstein, 2018; Evers *et al.*, 2018, Krisam *et al.*, 2021). Gold *et al.* (2023) found similar effects, but they considered the effect size too small to be relevant. On the other hand, Bang *et al.* (2020) argued that the perceived motives of the agent implementing the policy are more important than the identity of the agent, and found that perceived non-profit motivations are more beneficial for acceptability than financial motivations.

Perceived effectiveness

The most consistent finding in studies on support for behavioural interventions is the positive association between the perceived effectiveness of policy interventions and their acceptability. Eleven of the 28 studies have identified perceived effectiveness as a (and commonly the) main factor associated with acceptability (Cornwell and Krantz, 2014; Bos *et al.*, 2015; Jung and Mellers, 2016; Petrescu *et al.*, 2016; Hall *et al.*, 2018; Cadario and Chandon, 2019; Djupegot and Hansen, 2019; Reynolds *et al.*, 2019; Bang *et al.*, 2020; Davidai and Shafir, 2020; Gold *et al.*, 2023).

In all cases, this evidence is correlational, and very few studies provide insight into the underlying mechanisms. For example, ample studies in communication research have documented a 'Third Person Effect' (hereafter TPE) (see, for a review, Perloff, 1999). Davison (1983) coined this term for the belief that others are more easily persuaded or manipulated than they are. In our literature review, we found only three studies examining this TPE and its relationship with acceptability. Bos *et al.* (2015) and Bang *et al.* (2020) documented a large and significant TPE. Bos *et al.* (2015) concluded that both perceived influence on oneself and perceived influence on others are positively associated with acceptability. Bang *et al.* (2020) found a positive association for both measures of perceived influence in Study 2, but in Study 1 only perceived influence on others predicted acceptability. Gold *et al.* (2023) found a positive association between perceived influence and acceptability, as well as a TPE for four out of five tested behavioural interventions. In reporting the relationship between perceived influence on themselves and perceived influence on others.

Hypotheses tested in the present study

The present study investigates the acceptability of several interventions in financial decision-making. In doing so, we took a closer look at the relationship between agent and acceptability because of the mixed results in previous studies and because of its practical relevance for practitioners. Specifically, we examined whether disclosing the agent as a financial company or as policymakers influenced acceptability. Given the importance of non-profit motivations in previous work (Bang *et al.*, 2020), we hypothesised that acceptability would be higher when the agents are policymakers compared to financial companies (Hypothesis 1).

Our second hypothesis focused on the main factor associated with support in previous studies: perceived effectiveness. Particularly, we distinguished between perceived effectiveness in influencing your own decisions (hereafter: perceived self-effectiveness) as opposed to the decisions of other people (hereafter: perceived other-effectiveness). In line with the literature on TPE, we expected that perceived self-effectiveness would be lower than perceived other-effectiveness (Hypothesis 2). We also hypothesised that the association between perceived self-effectiveness and acceptability would be positive (Hypothesis 3). This hypothesis was based on the findings of Bos *et al.* (2015), Gold *et al.* (2023) and Bang *et al.* (2020). Finally, we explored the relationship between perceived other-effectiveness and acceptability. Based on the same previous studies (Bos *et al.*, 2015; Gold *et al.*, 2023; Bang *et al.*, 2020), we expected to find a relationship but were agnostic about its direction (Hypothesis 4). We report how we determined our sample size, all data exclusions, all manipulations and all measures included in our study (Simmons *et al.*, 2012).

Method

Participants

This study was run in the consumer panel of the Dutch Authority for the Financial Markets (AFM) in April 2018.¹ We used this panel because it provides insights into the opinions of consumers with a strong interest in financial decision-making. Panel members are often highly motivated to complete studies and are more

¹Data sharing is possible but will have to be approved on a case-by-case basis by the Dutch AFM.

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opinionated about financial matters than the average Dutch person. In this regard, our sample is different from the convenience or nationally representative samples commonly used in studies on the acceptability of behavioural interventions. Compared with the general Dutch population, panel members are also relatively wealthy. The sample size was based on the number of available panel members. Participants who gave the same answer to every question about all tested interventions were removed from the analysis (n = 12).² In all cases, these participants replied "neutral" to all questions about the interventions. The remaining sample consisted of 684 participants (17.3% women, $M_{age} = 61.6$, SD = 11.2).

Design

The study had a two-group between-subject design. In the policymaker condition, the descriptions of the interventions stated policymakers as the agents. In the financial companies condition, the descriptions stated financial companies as the agents. Hypotheses 2, 3 and 4 were tested with within-subject analyses.

Procedure

Participants first read an introductory text, stating that we were interested in people's opinions about various kinds of instruments to guide behaviour. Next, the participants were confronted with seven interventions in random order for each participant. We provided participants with a general description of each intervention and then described an application in the context of financial decision-making. We used the neutral term "instruments" throughout the study and refrained from using technical or specialist language like "nudges" or "behavioural interventions". Table 1 provides all interventions as described and the financial applications used. These interventions were chosen based on our review of the literature and internal discussions at the AFM. They are all examples of commonly studied interventions with relevance for the Dutch financial market context and with varying levels of intrusiveness (Evers *et al.*, 2018).

After each example, participants were asked to indicate whether they thought this particular application was a good idea or not (1 = very bad idea, 5 = very good idea). This question was our single-item acceptability measure.

Next, participants rated the instrument as a general instrument for guiding choices. This procedure was closely based on Tannenbaum *et al.* (2017) and included to investigate if respondents distinguish between judging the instrument and judging the underlying policy objective. We reminded participants that policymakers (in the policymaker condition) or financial companies (in the financial companies condition) can use the instrument for different purposes. Respondents then replied to four Likert-type items (1 = completely disagree, 5 = completely agree): 'Use of this instrument by policymakers OR financial companies in guiding choices is

²These participants also appear to have shorter response times. However, we are not fully confident in the response time measurements and have therefore not included any formal analysis of this data. As a robustness check, we have repeated our main analysis including these 12 participants (Supplementary Appendix Table A4). There are no differences between this model and the main model reported below.

Intervention	General description intervention: Through <general description<br="">intervention>, parties can try to guide people when making decisions.</general>	Example financial application: Policy makers OR financial companies can, for example, ensure <example financial<br="">application>.</example>
Knowledge and Information	<sharing and<br="" knowledge="">information></sharing>	<that and<br="" by="" knowledge="" sharing="">information, the importance of adequate pension savings is stressed></that>
Simplified Disclosure	<offering information="" simple=""></offering>	<that about="" information="" simple="" the<br="">risks of financial products is offered. For example by using green, orange and red labels></that>
Social Norms	<providing about="" information="" other<br="">people's choices in similar circumstances></providing>	<that a="" mortgage<br="" out="" people="" taking="">receive information about the decisions of other people taking out mortgage></that>
Reminders	<sending reminders=""></sending>	<that a="" goal<br="" people="" savings="" with="">receive reminders about this savings goal></that>
Presentation of Options	<the of="" options="" presentation=""></the>	<that insurance="" products="" with<br="">simple terms and conditions receive more attention that insurance products with more complex terms and conditions></that>
Active Choice	<requiring active="" an="" choice=""></requiring>	<that a="" checking<br="" opening="" when="">account, people have to choose actively whether they want the ability to have an overdraft></that>
Defaults	<defaults></defaults>	<that by<br="" inexperienced="" investors="">default get a cheap, well diversified portfolio, unless these investors choose otherwise></that>

Table 1. Overview of interventions used in the present research

acceptable/is manipulative/evokes feelings of resistance', and 'I experience use of this instrument by policymakers OR financial companies in guiding choices as a threat to freedom of choice'. Items 2, 3 and 4 were reverse scored, so that higher numbers indicate a more positive attitude. The responses were averaged to create an acceptability index (Cronbach's α 's ranging from 0.89 to 0.92). This acceptability index correlated substantially with the single-item acceptability measure discussed above (r's = 0.65 to 0.77). We therefore focus on the analysis for the acceptability index in the Results section below. Results for the single-item acceptability measure can be found in Supplementary Appendix Table A2. They are very similar, with a few nuances that we discuss in the relevant paragraphs of our Results section.

We then asked respondents to indicate via two questions: how much influence the instrument would have on their own decisions and how much influence it would have on other people's decisions (1 = very little influence, 5 = very much influence). Respondents then moved on to the next instrument, which was followed by the

		Agent of intervention						
	Policy	maker	Financial company					
Intervention	М	SD	М	SD				
Knowledge and Information	3.67	0.81	3.58	0.77				
Simplified Disclosure	3.62	0.78	3.61	0.81				
Social Norms	2.86	0.93	2.83	0.89				
Reminders	3.16	0.88	3.19	0.90				
Presentation of Options	2.92	0.94	3.02	0.91				
Active Choice	3.60	0.90	3.63	0.86				
Defaults	3.14	0.88	3.32	0.85				

Table 2. Main descriptives of the acceptability index by the agent of intervention

Note: The acceptability index runs from 1 to 5 with higher numbers indicating more acceptability.

same set of questions, until they had completed questions for all seven interventions. As a final question, we asked people to state their political preference (1 = very left of centre, 5 = very right of centre, 6 = I don't know/don't want to say). Gender and age were available for all panel members and added to the dataset.

Results

How high, or how low, is the acceptability of behavioural interventions in financial decision-making?

We explored the difference in perceived acceptability of the different interventions across the two agents of intervention (policymaker versus financial company; see Table 2). The means for the acceptability index ranged from 2.83 to 3.67. The information-based interventions received the highest support, whereas the social norms interventions received the lowest support.³ Contrary to expectations, the average perceived acceptability in the policymaker condition is similar to the one in the financial company condition across all the interventions, with the exception of the default intervention, where acceptability is higher in the financial company condition. This difference (3.14 versus 3.32) is significant, but in our view too small to be practically meaningful. We formally test Hypothesis 1 using a regression model where we also account for other factors.

The TPE: Is perceived self-effectiveness smaller than perceived other-effectiveness?

In order to test Hypothesis 2, we used paired-sample *t*-tests on the differences between perceived self- and other-effectiveness. We used the Bonferroni correction

³We want to thank an anonymous reviewer for pointing out that the wording used for this particular instrument might have led to privacy concerns, impacting acceptability ratings.

	Perceived self- effectiveness		Perceived other- effectiveness		
Intervention	М	SD	М	SD	<i>t,</i> p
Knowledge and Information	2.80	1.02	3.38	0.72	−14.26, p<0.001
Simplified Disclosure	2.69	1.04	3.44	0.72	-19.69, p<0.001
Social Norms	2.31	1.00	3.39	0.77	-25.39, p<0.001
Reminders	2.23	0.96	3.08	0.77	-22.56, p<0.001
Presentation of Options	2.44	0.98	3.41	0.76	-23.72, p<0.001
Active Choice	2.58	1.09	3.42	0.75	-19.64, p<0.001
Defaults	2.46	1.03	3.41	0.73	-22.90, p < 0.001

Table 3. Ratings of perceived self-effectiveness and perceived other-effectiveness

Note. Perceived self- [other-]effectiveness is the answer to the question how much influence each intervention would have on their own [other people's] decisions (1 = very little influence, 5 = very much influence).

to correct for the increased risk of a type-I error due to multiple comparisons. The adjusted threshold for significance is obtained by dividing our main threshold of 5% by 7 (the number of *t*-tests we perform), leading to a threshold for statistical significance of 0.71% for Hypothesis 2.

Table 3 presents the means and standard deviations for perceived self-effectiveness and perceived other-effectiveness across the seven interventions. We observed a clear pattern of responses. Consumers perceived all interventions to have, on average, a greater influence on others' decisions than on their own decisions, and paired-sample *t*-tests confirm the difference is statistically significant for all interventions, which provides support for Hypothesis 2.

Which factors are associated with the acceptability of behavioural interventions in financial decision-making?

In order to test Hypotheses 1, 3 and 4, we regressed the perceived acceptability index of each intervention on the experimental condition for the agent of the intervention together with perceived self-effectiveness and perceived other-effectiveness. We controlled for age and gender. In several previous studies (e.g., Reisch and Sunstein, 2016, see Supplementary Appendix Table A1), being female was associated with higher acceptability scores, whereas the association between age and acceptability was inconsistent (e.g., Sunstein *et al.*, 2018a, 2018b, see Supplementary Appendix Table 1). We find inconsistent associations between age, gender and acceptability. In addition, we examined the possibility that the participants' political orientation is associated with the acceptability of an intervention; the addition of political orientation does not substantially change the results (see Supplementary Appendix Table A3).

Because each participant evaluated all seven interventions, we estimated a seemingly unrelated regression (SUR) model, which takes into account the correlations between the evaluations of interventions within participants. In other words, we estimated a system of linear multiple regression equations where the error terms are correlated across the equations (Greene, 2002). This approach was necessary because the correlations between the error terms are substantial, as shown by a formal Breusch–Pagan test ($\chi^2(21) = 1020.25$, p < 0.001). The results of the SUR model are shown in Table 4. We used an α value of 0.05 to interpret the results. Excluding the control variables does not change the conclusions.

Hypothesis 1, which stated that the perceived acceptability of an intervention is higher in the policymaker condition than in the financial company condition, was rejected across all interventions except the default intervention. For our default intervention, acceptability was higher in the financial company condition.

Hypothesis 3, in which we expected a positive relationship between perceived selfeffectiveness and acceptability, was supported for all the interventions. The coefficients across the interventions varied between 0.214 (for the intervention Active Choice) and 0.374 (for the intervention Social Norms).

Hypothesis 4, which stated that perceived other-effectiveness is associated with the acceptability of an intervention, was supported for three of the interventions: Knowledge and Information, Social Norms, and Presentation of Options. The relationship is positive for the Knowledge and Information intervention. In the model with the single-item acceptability measure (see Supplementary Appendix Table A2), there is an additional positive association between perceived other-effectiveness and acceptability for the Reminders intervention. The relationship between perceived other-effectiveness and acceptability is negative for the Social Norms and Presentation of Options interventions. For these two interventions, higher perceived other-effectiveness was associated with lower acceptability. These are also the interventions with the lowest average acceptability ratings (see Table 2).

Discussion

We examined the acceptability of seven different behavioural interventions in financial decision-making. In particular, we looked at the role of two previously established factors related to acceptability: the agent of the intervention (experimentally manipulated as policymaker or financial company) and the perceived effectiveness of the intervention (measured) in influencing decisions.

The acceptability of behavioural interventions in financial decision-making

We find that behavioural interventions in financial decision-making received mean acceptability index ratings from 2.83 to 3.67 on a 5-point scale. This appears to be somewhat lower than is typically found in studies on the acceptability of behavioural policy interventions in other domains (specifically health), where support for the most popular (information-based) intervention is often close to the scale maximum. We interpret these results as a tentative confirmation of the domain-specific nature of acceptability (as previously argued by Gold *et al.*, 2023). This implies that academics and practitioners should be hesitant to generalise findings about acceptability from one domain to the other.

Similar to previous studies, the information-based interventions received the highest support. But perhaps, surprisingly, given the results from previous studies, support

Variable	Knowledge and Information	Simplified Disclosure	Social Norms	Reminders	Presentation of Options	Active Cł
	Coefficient (<i>SE</i>)	Coefficient	Coefficient	Coefficient	Coefficient	Coeffici
	p	(<i>SE</i>) p	(SE) p	(<i>SE</i>) p	(SE) p	(SE)
Intercept	2.411 (0.200)	2.453 (0.198)	2.216 (0.247)	2.310 (0.217)	2.316 (0.257)	3.235 ((
	p < 0.001	p < 0.001	p < 0.001	p < 0.001	p < 0.001	p < 0.0
Agent of intervention: financial company versus policy maker	-0.071 (0.057) p=0.210	0.041 (0.056) p=0.460	-0.003 (0.065) p=0.963	0.056 (0.063) p = 0.370	0.070 (0.067) p=0.298	0.094 (0 p=0.1
Perceived self-	0.259 (0.023)	0.278 (0.023)	0.374 (0.029)	0.325 (0.030)	0.290 (0.030)	0.214 (0
effectiveness	p < 0.001	p < 0.001	p < 0.001	p < 0.001	p < 0.001	p < 0.0
Perceived other-	0.081 (0.032)	0.037 (0.033)	-0.139 (0.037)	0.071 (0.037)	-0.170 (0.039)	0.067 (0
effectiveness	p=0.011	p=0.259	p < 0.001	p=0.057	p < 0.001	p=0.0
Age	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)	-0.001 (0.003)	0.008 (0.003)	-0.008 (0
	p=0.141	p=0.108	p = 0.219	p=0.610	p=0.010	p=0.0
Gender: male	-0.167 (0.076)	-0.075 (0.075)	-0.192 (0.088)	-0.192 (0.085)	-0.227 (0.090)	-0.101 (0
versus female	p=0.028	p=0.316	p=0.029	p=0.024	p=0.012	p=0.2
Adjusted R ²	14.79%	16.58%	13.88%	13.71%	10.18%	8.17%

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able 4.	SUR model	results to	or the seven	Interventions	(main	model,	N = 684)	(standard	errors a	re reported	In	parentneses

Defaults Coefficient (*SE*) p 1.799 (0.221) p < 0.001 0.166 (0.062) p = 0.007

0.307 (0.025) p < 0.001 -0.001 (0.034) p = 0.976 0.009 (0.003) p < 0.001 -0.003 (0.083) p = 0.968 14.89%

for defaults and active choice – interventions considered to be intrusive (Evers *et al.*, 2018) – was above the scale mid-point.

The role of agents

Contrary to our expectations, the experimental manipulation (disclosing policymakers or financial companies as the agents of the intervention) did not impact acceptability ratings in any practically meaningful way. One possible explanation is the composition of our sample. Specifically, their above-average familiarity with the financial sector might mean our sample trusts financial companies more than the average Dutch citizen. However, people who trust financial companies more, also tend to have higher trust in supervisory authorities (van der Cruijsen et al., 2021). Therefore, we believe a more likely explanation is that trust in both financial firms and policymakers in The Netherlands was at very low levels at the time of data collection (and still is at the time of writing) (Central Bureau for Statistics, 2023). It is not necessarily intuitive for people working in government, or in government-adjacent organisations, that citizens question or distrust their motives, and we believe a main policy implication of our findings is that policymakers should make sure to clearly explain the intentions behind a specific policy intervention. For researchers, this implies that it is important to include direct measures of trust and/or perceived motivations when studying the relationship between agent and acceptability.

Perceived effectiveness and acceptability

As in previous studies, the factor most strongly associated with acceptability was the perceived effectiveness of the intervention. We distinguished between perceived self-effectiveness and perceived other-effectiveness. As hypothesised, we documented a TPE for all our interventions. We also found a strong and positive association between perceived effectiveness and acceptability for all interventions - but only for the perceived effectiveness of own decisions. The relationship between perceived influence and others' decisions was inconsistent. In our main model, the correlation between perceived other-effectiveness and acceptability was not significant for the majority of our interventions. For the Knowledge and Information intervention, we found a positive (but weak) association, whereas we found a strong negative association between perceived other-effectiveness and acceptability for two interventions: Social Norms and the Presentation of Options. This finding stands in marked contrast to other studies that made the distinction between self- and othereffectiveness and found positive relationships for both (Bos et al., 2015; Bang et al., 2020). Moreover, we note that these two interventions have the lowest acceptability scores. Our study design does not allow for any claims about the exact nature of this association. We suggest the distinction between perceived self-effectiveness and perceived other-effectiveness, and their relationship with acceptability, as a topic for further research. In the meantime, communication departments should take into account that the phrasing used to describe policy interventions (e.g., aimed at 'you' or 'other people') could impact its persuasiveness (cf. Cornwell and Krantz, 2014).

Conclusion

To summarise, in the present study, we find that the acceptability of behavioural interventions in financial decision-making is not as high as the acceptability levels found in previous studies, which focussed mostly on healthy eating. More generally, the results demonstrate that acceptability appears to be at least partly domain-specific. The results also highlight that we have only just begun understanding the potential drivers of acceptability. In contrast to many previous studies, but in line with Gold *et al.* (2023), the agent of the intervention is not associated with acceptability in any practically meaningful way. While the perceived effectiveness of the intervention is – as in previous studies – the main factor associated with acceptability, we find that the association between perceived effectiveness and acceptability differs between perceived self-effectiveness and perceived other-effectiveness. An important implication of these heterogeneous findings is that academics as well as practitioners need to be cautious when aiming to apply insights about acceptability and its drivers from one domain to another.

Supplementary Material. To view supplementary material for this article, please visit https://doi.org/10. 1017/bpp.2024.10.

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Competing interest. We have no known competing interests to disclose.

References

- Almqvist, G. and P. Andersson (2021), 'Low support for nudging among Swedes in a populationrepresentative sample', *Behavioural Public Policy*, First View: 1–13. https://doi.org/10.1017/bpp.2021.4.
- Andersson, P. and G. Almqvist (2022), 'Carrots, sticks, sermons or nudges? Survey evidence of the Swedish general public's attitude towards different public policy tools', *Behavioural Public Policy*, First View: 1– 26. https://doi.org/10.1017/bpp.2022.31.
- Arad, A. and A. Rubinstein (2018), 'The people's perspective on libertarian-paternalistic policies', *Journal of Law and Economics*, **61**(2): 311–333. https://doi.org/10.1086/698608.
- Banerjee, S., M. Savani and G. Shreedhar (2021), 'Public support for 'soft' versus 'hard' public policies: review of the evidence', *Journal of Behavioral Public Administration*, **4**(2): 1–24. https://doi.org/10. 30636/jbpa.42.220.
- Bang, H. M., S. B. Shu and E. U. Weber (2020), 'The role of perceived effectiveness on the acceptability of choice architecture', *Behavioural Public Policy*, 4(1): 50–70. https://doi.org/10.1017/bpp.2018.1.
- Beshears, J., J. J. Choi, D. Laibson and B. C. Madrian (2018), 'Behavioral Household Finance', in *Handbook of Behavioral Economics: Applications and Foundations 1*, Vol. 1. Elsevier. https://doi.org/10.1016/bs. hesbe.2018.07.004.
- Bos, C., I. Van Der Lans, F. Van Rijnsoever and H. Van Trijp (2015), 'Consumer acceptance of populationlevel intervention strategies for healthy food choices: the role of perceived effectiveness and perceived fairness', *Nutrients*, 7(9): 7842–7862. https://doi.org/10.3390/nu7095370.
- Cadario, R. and P. Chandon (2019), 'Viewpoint: effectiveness or consumer acceptance? Tradeoffs in selecting healthy eating nudges', *Food Policy*, **85**: 1–6. https://doi.org/10.1016/j.foodpol.2019.04.002.
- Central Bureau for Statistics. (2023, May 9). Vertrouwen in mensen en in organisaties; persoonskenmerken. https://opendata.cbs.nl/statline/#/CBS/nl/dataset/85533NED/table?ts=1688038240984 [7 July 2023].
- Cornwell, J. F. M. and D. H. Krantz (2014), 'Public policy for thee, but not for me: varying the grammatical person of public policy justifications influences their support', *Judgment and Decision Making*, **9**(5): 433–444. https://doi.org/10.1017/S193029750000680X.

- Davidai, S. and E. Shafir (2020), 'Are 'nudges' getting a fair shot? Joint versus separate evaluation', Behavioural Public Policy, 4(3): 273-291. https://doi.org/10.1017/bpp.2018.9.
- Davison, W. P. (1983), 'The third-person effect in communication', *Public Opinion Quarterly*, **47**(1): 1–15. https://doi.org/10.1086/268763.
- Djupegot, I. L. and H. Hansen (2019), 'If it works, I like it: consumer acceptance of food-related nudging', Journal of International Food and Agribusiness Marketing, **32**(4): 361–378. https://doi.org/10.1080/ 08974438.2019.1668325.
- Evers, C., D. R. Marchiori, A. F. Junghans, J. Cremers and D. T. D. De Ridder (2018), 'Citizen approval of nudging interventions promoting healthy eating: the role of intrusiveness and trustworthiness', BMC Public Health, 18: 1182. https://doi.org/10.1186/s12889-018-6097-y.
- Frydman, C. and C. F. Camerer (2016), 'The psychology and neuroscience of financial decision making', *Trends in Cognitive Sciences*, 20(9): 661–675. https://doi.org/10.1016/j.tics.2016.07.003.
- Gold, N., Y. Lin, R. Ashcroft and M. Osman (2023), "Better off, as judged by themselves": do people support nudges as a method to change their own behavior?', *Behavioural Public Policy*, 7(1): 25–54. https://doi.org/10.1017/bpp.2020.6.
- Greene, W. H. (2002), Econometric Analysis, 5th ed., Upper Saddle River: Prentice Hall.
- Hagman, W., D. Andersson, D. Västfjäll and G. Tinghög (2015), 'Public views on policies involving nudges', *Review of Philosophy and Psychology*, 6(3): 439–453. https://doi.org/10.1007/s13164-015-0263-2.
- Hagman, W., A. Erlandsson, S. Dickert, G. Tinghög and D. Västfjäll (2022), 'The effect of paternalistic alternatives on attitudes toward default nudges', *Behavioural Public Policy*, 6(1): 95–118. https://doi. org/10.1017/bpp.2019.17.
- Hagmann, D., M. Siegrist and C. Hartmann (2018), 'Taxes, labels, or nudges? Public acceptance of various interventions designed to reduce sugar intake', *Food Policy*, **79**(July): 156–165. https://doi.org/10.1016/j. foodpol.2018.06.008.
- Hall, M. G., T. M. Marteau, C. R. Sunstein, K. M. Ribisl, S. M. Noar, E. N. Orlan and N. T. Brewer (2018), 'Public support for pictorial warnings on cigarette packs: an experimental study of US smokers', *Journal of Behavioral Medicine*, 41(3): 398–405. https://doi.org/10.1007/s10865-018-9910-2.
- Hedlin, S. and C. R. Sunstein (2016), 'Does active choosing promote green energy use? Experimental evidence', *Ecology Law Quarterly*, 43(1): 107–141. https://doi.org/10.2139/ssrn.2624359.
- John, P., A. Martin and G. Mikołajczak (2022), 'Support for behavioral nudges versus alternative policy instruments and their perceived fairness and efficacy', *Regulation and Governance*, **17**(2): 363–371. https://doi.org/10.1111/rego.12460.
- Jung, J. Y. and B. A. Mellers (2016), 'American attitudes toward nudges', *Judgment and Decision Making*, **11** (1): 62–74. https://doi.org/10.1017/S1930297500007592.
- Krisam, M., M. Maier, R. Janßen and J. Krisam (2021), 'What do Germans really think about healthnudges?', BMC Public Health, 21: 821. https://doi.org/10.1186/s12889-021-10808-7.
- Lefevre, A. and M. Chapman (2017), *Behavioural Economics and Financial Consumer Protection*, OECD Working Papers on Finance, Insurance and Private Pensions, No. 42, Paris: OECD Publishing. https://doi.org/10.1787/0c8685b2-en.
- Mazzocchi, M., S. Cagnone, T. Bech-Larsen, B. Niedźwiedzka, A. Saba, B. Shankar and W. B. Traill (2014), 'What is the public appetite for healthy eating policies? Evidence from a cross-European survey', *Health Economics, Policy and Law*, 10(3): 267–292. https://doi.org/10.1017/S1744133114000346.
- Michaelsen, P. (2021) 'Experiences and Perceptions of Default Nudges', Doctoral Dissertation, PsyArXiv. https://doi.org/10.31234/osf.io/3jm6a
- Page, B. I. and R. Y. Shapiro (1983), 'Effects of public opinion on policy', *American Political Science Review*, 77(1): 175–190. https://doi.org/10.2307/1956018.
- Pe'er, E., Y. Feldman, E. Gamliel, L. Sahar, A. Tikotsky, N. Hod and H. Schupak (2019), 'Do minorities like nudges? The role of group norms in attitudes towards behavioral policy', *Judgment and Decision Making*, 14(1): 40–50.
- Perloff, R. M. (1999), 'The third person effect: a critical review and synthesis', *Media Psychology*, 1(4): 353–378. https://doi.org/10.1207/s1532785xmep0104_4.
- Petrescu, D. C., G. J. Hollands, D. L. Couturier, Y. L. Ng and T. M. Marteau (2016), 'Public acceptability in the UK and USA of nudging to reduce obesity: the example of reducing sugar-sweetened beverages consumption', *PLoS ONE*, 11(6): 1–18. https://doi.org/10.1371/journal.pone.0155995.

- Rafaï, I., A. Ribaillier and D. Jullien (2022), 'The impact on nudge acceptability judgements of framing and consultation of the targeted population', *Behavioural Public Policy*, First View: 1–16. https://doi.org/10. 1017/bpp.2022.13.
- Reisch, L. A. and C. Sunstein (2016), 'Do Europeans like nudges?', Judgment and Decision Making, 11(4): 310–325. https://doi.org/10.1017/CBO9781107415324.004.
- Reynolds, J. P., S. Archer, M. Pilling, M. Kenny, G. J. Hollands and T. M. Marteau (2019), 'Public acceptability of nudging and taxing to reduce consumption of alcohol, tobacco, and food: A population-based survey experiment', *Social Science and Medicine*, 236(March): 112395. https://doi.org/10.1016/j. socscimed.2019.112395.
- Simmons, J. P., L. D. Nelson and U. Simonsohn (2012), 'A 21 word solution', *Dialogue*, 26(2): 4–7. https:// doi.org/10.2139/ssrn.2160588.
- Sunstein, C. R., L. A. Reisch and M. Kaiser (2018a), 'Trusting nudges? Lessons from an international survey', *Journal of European Public Policy*, 26(10): 1417–1443. https://doi.org/10.1080/13501763.2018. 1531912.
- Sunstein, C. R., L. A. Reisch and J. Rauber (2018b), 'A worldwide consensus on nudging? Not quite, but almost', Regulation and Governance, 12(1): 3–22. https://doi.org/10.1111/rego.12161.
- Tannenbaum, D., C. R. Fox and T. Rogers (2017), 'On the misplaced politics of behavioural policy interventions', *Nature Human Behaviour*, 1(7): 0130. https://doi.org/10.1038/s41562-017-0130.
- van der Cruijsen, C., J. de Haan and R. Roerink (2021), 'Financial knowledge and trust in financial institutions', *Journal of Consumer Affairs*, 55(2): 680–714. https://doi.org/10.1111/joca.12363.
- van Gestel, L. C., M. A. Adriaanse and D. T. D. de Ridder (2021), 'Who accepts nudges? Nudge acceptability from a self-regulation perspective', *PLoS ONE*, 16(12): e0260531. https://doi.org/10.1371/journal. pone.0260531.
- Yan, H. and J. F. Yates (2019), 'Improving acceptability of nudges: learning from attitudes towards opt-in and opt-out policies', *Judgment and Decision Making*, 14(1): 26–39. https://doi.org/10.1017/ S1930297500002886.

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