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How Much Liberty Should We Have? Citizens versus Experts on Regulating Externalities and Internalities

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Abstract

Based on a tailor-made survey, we find that experts – academics and civil servants – are much more willing than citizens in Sweden to accept liberty-reducing regulations. Moreover, both citizens and experts are more supportive of regulating negative *internalities* (in terms of health) than negative *externalities* (in terms of climate change). While less liberty-reducing policy instruments receive more support, around 20 percent of citizens and experts support very intrusive measures such as non-transferable individual quotas for air travel and unhealthy foods. Both experts and citizens prefer encouraging to discouraging information provision, while experts are more positive than citizens to tax instruments.

JEL-classification: D04, D62, D91, Q58

Key-wors: externalities, internalities, paternalism, experts, citizens

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The only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others. His own good, either physical or moral, is not a sufficient warrant.

John Stuart Mill in *On Liberty*

1. Introduction

The initial quote from John Stuart Mill (Mill, 1999 [1859]), sometimes denoted *the harm principle*, is broadly in line with conventional economic theory where government interventions are called for in the presence of externalities or other market failures, but not otherwise.[1] However, many interventions such as taxation of alcohol and cigarettes, seatbelt laws, and compulsory savings for retirement, are not primarily motivated by *externalities*, but rather *internalities* (Thaler and Sunstein, 2008; 2021). The aim is then not primarily to reduce harm made to others but to help people make better choices for themselves. Moreover, in the past decade, "nudge units" or "behavioral insight teams" have evolved in many countries, where the main toolbox does not include hard regulations but nudges or changes in the choice architecture (e.g., Thaler and Sunstein 2021).

As far as we know, this paper is the first to empirically analyze attitudes to a broad set of liberty-reducing policies that include both taxes and choice architecture. We are also the first to compare attitudes to comparable restrictions (dietary restrictions) on both externalities (in terms of climate change) and internalities (in terms of health). The analysis is based on a tailor-made survey in Sweden, which provides large opportunities to obtain rich and informative data (e.g., Stantcheva, 2023). Moreover, we are the first to compare the opinions of citizens with those of experts concerning a broad set of policy instruments and general attitudes to paternalism. The comparison between the opinions of citizens

[1] This is under the standard assumptions of transaction costs and/or poorly defined property rights.

and experts is important for at least two reasons. i) While an important democratic ideal is that people should have power, the idea behind representative democracies is that people are willing to give up some power to elected policymakers, who in turn rely on various experts. Thus, experts do have more power than citizens, and it is interesting to know how experts and citizens believe that such power should be utilized. ii) Experts are not experts on everything, making it interesting to explore whether their attitudes to liberty-reducing measures differ between their area of expertise and other domains, and whether in the latter case their attitudes align more closely with those of citizens. In addition, the insights contribute to an increased understanding of the political economy of various policy instruments to combat climate change, which importance has been highlighted by Stern (2022).

The survey asks questions ranging from very general to specific ones. The most general question concerns what the government should do when there is a conflict of opinion between the voters and politicians, and the politicians believe they know more than the citizens: should the decision be based on what the voters or the politicians prefer? This question captures how willing people are to accept paternalism. While a majority of both citizens and experts think that people should decide most often, we find that experts – both academics and government officials – are considerably more positive than citizens about letting politicians decide against the will of citizens.

The advantage of this broad question is that it provides answers to fundamental attitudes and not particular views in specific and selected contexts that may differ. The drawback is that it is not straightforward to generalize the attitudes to more concrete policy contexts. We therefore also investigate the attitudes to interventions in three specific contexts: i) food consumption and negative health effects, ii) food consumption and climate impact, and iii) air transport and climate impact. For example, in the food and health context, we asked: “Do you believe the government should try to influence people’s consumption of sugar and harmful fats?” This

design allows us to investigate whether the attitudes differ between internalities (health) and externalities (climate) for the same good domain (food), as well as between the two domains (food and transport) for the same externality (climate). We find that experts' support for government interventions is stronger than citizens' support in each case.

We also find, in contrast to both conventional economic theory and Mill's harm principle, larger support in the food domain for government interventions to improve health (the internality) than to reduce climate impact (the externality). In other words, within the same (food regulation) domain, we find larger support for regulation dealing with internalities, i.e., where people are protected from making poor choices for themselves, than regulation dealing with externalities.

In addition, we asked about the attitudes to concrete policies, ranging from very intrusive and limiting, such as individual and non-transferable quotas, over price instruments, to softer interventions such as nudges. Perhaps not surprisingly, we find that most people, including experts, exhibit a more positive attitude to the less intrusive measures. At the same time, a strikingly large share of individuals supports measures that reduce liberty to a very large extent, such as the implementation of a non-tradable annual cap on individual air trips. While experts show stronger support than citizens for government interventions, the ranking of various policy instruments is similar between the two groups. The exception is that experts are more in favor of taxes and less supportive of encouraging labels than citizens. Here too, we find larger support for policies addressing internalities than for policies addressing externalities. Finally, while it is sometimes believed that economists are more reluctant than other academics to government interventions, we see little evidence of this in our study.

Section 2 discusses earlier work on and attitudes to liberty-reducing measures, including comparisons between experts and citizens, Section 3 describes the survey and sampling, whereas Section 4 presents the results of the general question on who

should decide when people and politicians have different opinions. Sections 5 and 6 present the results of the domain-specific questions in terms of more general and more specific questions, respectively. Section 7 summarizes and provides some concluding remarks.

2. Literature

While most economists and many social scientists are in broad agreement on the need for government regulations of externalities, there is no agreement concerning internalities. Sunstein and Thaler (2003) and Thaler and Sunstein (2008, 2021) have repeatedly argued in favor of what they denote *libertarian* or *soft* paternalism based on nudges – changes in the choice architecture – where the aim is "to influence choices in a way that will make choosers better off, as judged by themselves" (Sunstein and Thaler, 2003, p. 5) "without forbidding any options or significantly changing their economic incentives" (Thaler and Sunstein, 2008, p. 6). In parallel to this development, various welfare-theoretic models where people make mistakes have been developed; see e.g., Bernheim and Rangel (2009) and Bernheim (2016). Others (e.g., Scoccia, 2008) argue in favor of a "harder" paternalism, i.e., to strictly reduce people's freedom of choice when this is in the best interest of people.

Others such as Glaeser (2004), Gigerenzer (2015), Sugden (2018), and Hands (2021) are skeptical of soft or libertarian paternalism on a more fundamental level. It is argued that: i) people have the right to choose even when they might make bad choices, ii) the government consists of imperfect people who, when choosing for their citizens, are likely to make bad choices, iii) people's supposed irrationality is overrated, and iv) allowing the government to reduce the liberty of people on trivial matters may induce more far-reaching consequences, i.e., a slippery slope argument. Naturally, these arguments are rebutted by the proponents of soft paternalism, and the debate continues.

There is also a large empirical literature on the effectiveness of behavioral interventions (see, e.g., Thaler and Sunstein, 2021; Carlsson et al., 2021). However, in a recent paper, Chater and Loewenstein (2023) argue that behavioral interventions targeted directly to individuals, which they denote *i*-frame interventions, have overall turned out to be disappointing, and have often resulted in very small effects; cf., e.g., Della Vigna and Linos (2022). Instead, they propose a shift to a more system-oriented approach focusing on conventional regulation tools that are already used to regulate externalities, such as taxes and legal restrictions, which they denote *s*-frame interventions, even when dealing with internalities. Yet, there is no consensus on this issue as vividly illustrated by Sunstein's response to Chater and Lowenstein (Sunstein, 2023).

While there is broad agreement regarding the need to regulate externalities, there is less agreement on how this should be done in a world populated by real people, who make mistakes and have broader preferences than *Homo Economicus* (Salanié and Treich, 2009). For example, Carlsson and Johansson-Stenman (2012) argue that conventional policy instruments, such as taxes, regulations, and tradeable permits, are equally important in such a world. On the other hand, Benartzi et al. (2017) conclude that "our selective but systematic calculations indicate that the impact of nudges is often greater, on a cost-adjusted basis than that of traditional tools," while they still agree on the need for conventional policy instruments.[2]

There is a relatively small literature investigating the potential discrepancy between the priorities of experts and citizens when it comes to public policies. For example, Carlsson et al. (2011) found that administrators at the Swedish Environmental Protection Agency (EPA) put a higher value on environmental policies than citizens, while Carlsson et al. (2012) did not find any substantial differences between public administrators and citizens regarding priorities

[2] See Carlsson et al. (2021) for a broad overview of green behavioral interventions.

regarding risk reductions. Sapienza and Zingales (2013) compared the attitudes of economic experts and Americans and found that they differed greatly between the two groups regarding several policy issues. Gordon and Dahl (2013) on the other hand investigated whether there is a liberal/conservative divide among economists and found a remarkably high degree of consensus and little evidence of a divide. Similarly, Drupp et al. (2023) investigated carbon price recommendations among experts and found a fairly strong agreement on short- and medium-term global price levels. There is also political science literature showing that large fractions of the citizens in some countries prefer that experts rather than governments make most decisions in the country; see, e.g., Bertsou and Caramani (2022).

Naturally, there is a larger literature focusing solely on citizens' attitudes to public policies. For example, several studies have found that many people approve of using nudges in the U.S. (Jung and Mellers, 2016; Hagman et al., 2015) and Europe (Reich and Sunstein, 2016; Hagman et al., 2015). In a large-scale international survey, Dechezleprêtre et al. (2022) investigated support for climate policies and found overall strong support that depended on three fundamental factors: perceived effectiveness, inequality concerns, and self-interest. Ambuehl et al. (2021) provide experimental evidence on peoples' paternalistic behavior in a setting involving intertemporal choices and suggest that experts' and policymakers' attitudes to paternalism would be an interesting venue for future research.

Yet there is no previous study that systematically investigates differences in attitudes between citizens and experts to liberty-reducing policy measures in general, and to policies related to both externalities and internalities.

3. The Sample and Survey

The analysis in this paper is based on a nationally representative survey sent to Swedish adult citizens (18 years and older) at the end of 2019 and the beginning of 2020 (before the outbreak of the COVID pandemic in Sweden), where probability

sampling was used to recruit members to the web panel. The final sample was collected from the web panel using stratified sampling on representative quotas for gender, age, education, and geography.

The sample statistics (n=2,875) are close to the underlying population statistics (Statistics Sweden, 2019) for gender (48% vs 52%), completed university education (24% vs 28%), and age (see appendix A1).

A shorter version of the same survey was sent during the same period to all academic staff in the relevant departments at the four major universities in Sweden (Lund University, Stockholm University, University of Gothenburg, and Uppsala University) and to all relevant staff (excluding pure administration, etc.) at the three public agencies in Sweden that are primarily responsible for health, environmental issues, and transportation policies: the Swedish Food Agency (SFA), the Swedish Environmental Protection Agency (SEPA), and the Swedish Transport Agency (STA).

The response rates (*rr*) and number of observations (*n*) vary between the disciplines as follows: Business (*n*=120, *rr*=0.18), Economics (*n*=98, *rr*=0.21), Health (*n*=190, *rr*=0.18), Law (*n*=32, *rr*=0.06), Life science (*n*=312, *rr*=0.25), Political science (*n*=61, *rr*=0.13), Psychology (*n*=90, *rr*=0.17), and Sociology (*n*=159, *rr*=0.43), implying for all academics (*n*=1062, *rr*=0.20). The low response rate in some academic groups is of course a limitation of our study; yet, we will put little emphasis on differences between academic groups in the analysis. For civil servants we obtain correspondingly: Food Agency (*n*=212, *rr*=0.37), Swedish EPA (*n*=151, *rr*=0.36), and the Transport Agency (*n*=106, *rr*=0.32), implying for all civil servants (*n*=469, *rr*=0.35).

The survey (see Appendix) had two sections. The first contained questions concerning government interventions whereas the second included sociodemographic variables and questions about attitudes and behavior related to the policies we investigate.

4. Who should decide when there is a conflict of opinion: voters or politicians?

We start by presenting results for the general question of what the government should do when there is a difference between what the politicians, who believe they know more than the citizens, and the people prefer. The question captures how willing people are to give up the liberty to choose, to politicians. The question read as follows:

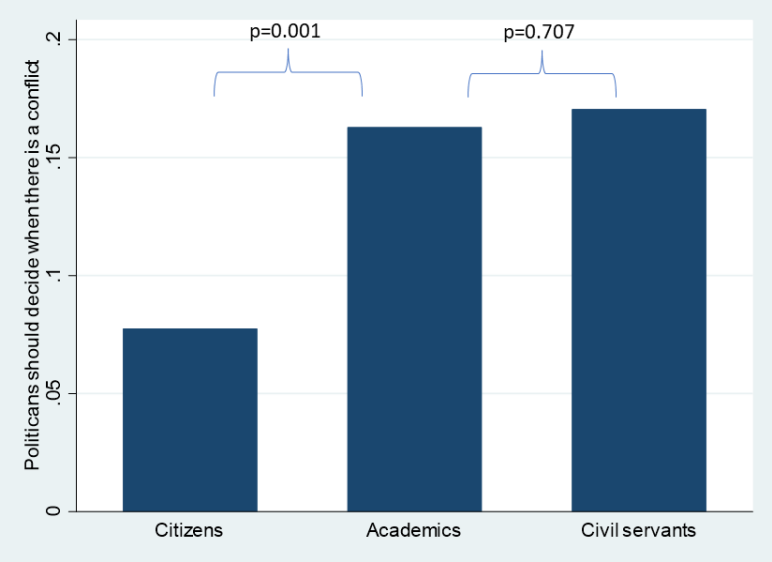
> *When some political issues are discussed, there is a clear conflict between the opinions of most politicians and what most voters think. In your opinion, how should politicians make decisions related to such issues?*

The respondent could choose between the following response alternatives (the terms in brackets were invisible to the respondents):

> *[Always voter]: They should always or almost always make decisions in line with what the voters think, even when politicians are convinced that voters do not know what is in their best interest.*
>
> *[Usually voter]: They should usually make decisions in line with what the voters think, but they should go against voters when politicians are absolutely convinced that voters do not know what is in their best interest.*
>
> *[Equal]: They should make decisions in line with what the voters think about half of the time and in line with what politicians think about half of the time.*
>
> *[Usually politician]: They should usually make decisions in line with what politicians think, because the politicians have more knowledge and often know better what is in the best interest of the voters.*
>
> *[Always politician]: They should always or almost always make decisions in line with what most politicians think because the politicians have much more knowledge and almost always know better what is in the best interest of the voters.*

Figure 1 shows the share of respondents believing that politicians usually or always should decide when there is a conflict.

Figure 1. Share of respondents who believe that politicians should always or usually decide when there is a conflict between politicians and voters.



Note: p-values for proportion test of equal shares

For all three groups, only a limited minority believe that decisions should be made in line with what the politicians think when there is a conflict. Likewise (not shown in the figure), in all groups a large majority believe that decisions should be made in line with what the citizens think.[3] Thus, and perhaps not very surprising, a majority are reluctant to a general paternalistic attitude. However, about twice as many experts – both academics and civil servants, believe that politicians should decide when there is a conflict.

A difference between experts and citizens is that all experts are university educated while only a minority of citizens are. If we only look at citizens with a university education, the share supporting that politicians should decide when there is a conflict is 12 percent, i.e., higher than the average for the whole group of citizens. The difference between those with and without university education is

[3] See Figure A1 in the appendix for the distribution of responses for the three groups.

statistically significant using a proportion test (p-value=0.000). While this is consistent with a story asserting that education makes people more open to paternalistic policies, there are of course many mechanisms involved and we certainly make no claim regarding causality.

5. Should the government try to influence people's behavior?

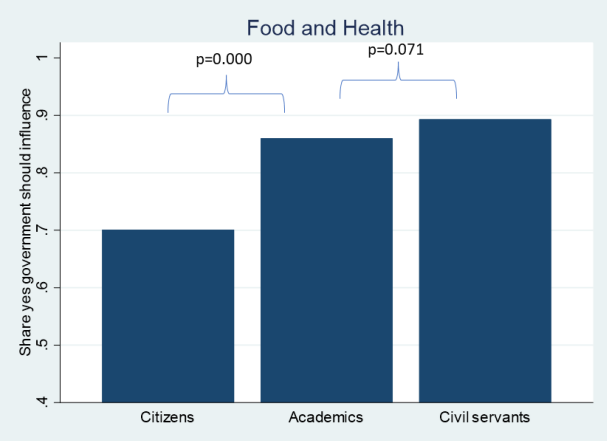
Next, we look at the general attitudes to the government intervening in the three different domains by analyzing the following questions:

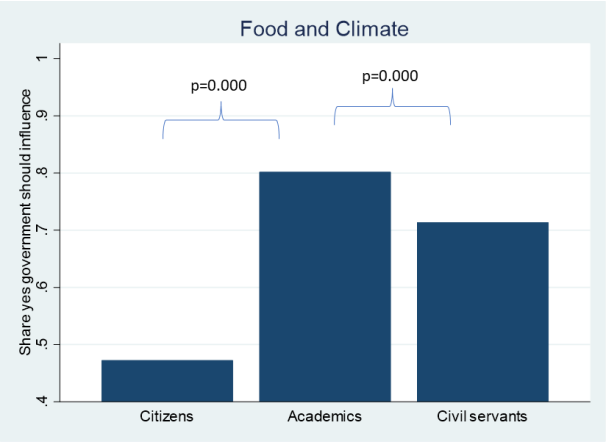
> *[Food and Health]: Research has shown that many people consume sugar and harmful fats in unhealthy amounts. Over time, this may lead not to only obesity but also to a wide range of diseases. Do you believe the government should try to influence people's consumption of sugar and harmful fats?*
>
> *[Food and Climate]: A large share of a household's impact on the climate is caused by the food products it consumes. Some foods, such as beef and lamb, have a stronger effect on the climate than others. In your opinion, should the government try to reduce people's climate impact by influencing their food consumption?*
>
> *[Transport and Climate]: Part of people's climate impact can be attributed to their air travel. Do you believe the government should try to influence people's climate impact caused by air travel?*

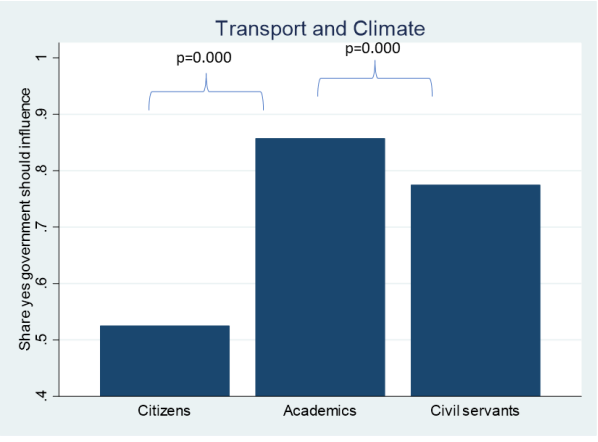
Note that we have two domains that involve dietary restrictions, where interventions in one aim to benefit individual health (an internality), whereas in the other the aim is to reduce climate-related emissions (an externality). A comparison between the results in these two domains is therefore suggestive of peoples' support for policies addressing internalities versus externalities.

Figure 2 reports the yes-shares, i.e., the share of respondents agreeing that the government should influence individual behavior, for each of the three domains.

Figure 2. Attitudes to government intervention in three domains: share saying yes to government intervention in each of the domains.







Note: p-values are from proportion tests of equal shares

The support for government intervention is above 70 percent for all three domains for both academics and civil servants. The support is notably lower among citizens, barely reaching a simple majority. The difference between citizens and the two expert groups is statistically significant at the 0.1 percent level for all three domains using a proportion test.[4] In the health domain, this may be interpreted as experts to a greater extent holding a paternalistic attitude.

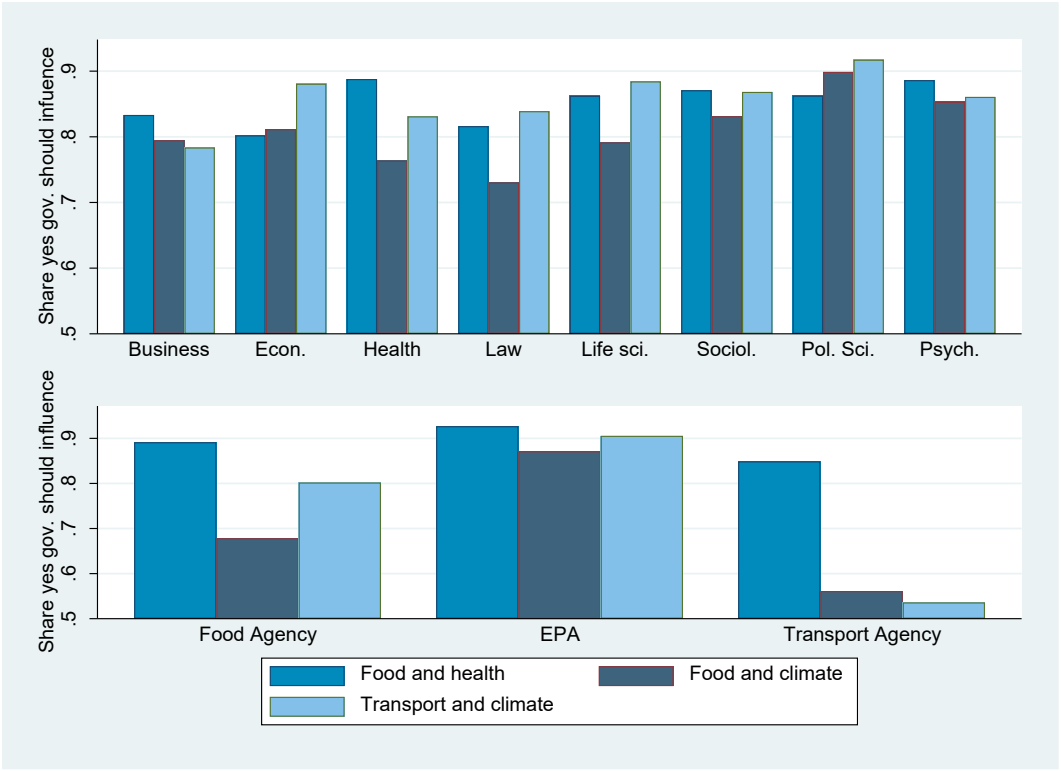
There are clear differences in support for various government interventions. Let us start by comparing the attitudes to internality versus externality interventions, i.e., by comparing food and health (internality) with food and climate (externality). The support for interventions related to the internality is much stronger than the support for the externality case.[5] This holds for all groups, although it is more pronounced among citizens. This is inconsistent with conventional microeconomic theory, which suggests that externalities but not internalities should be regulated, as well as Mill's harm principle in political philosophy. A possible interpretation is simply that many people are more concerned with themselves than with the overall society, and that they see clearer links to their welfare through the health policies. While Hagman et al. (2015) also find larger support among citizens for policies dealing with internalities, the present study, as far as we know, is the first to compare attitudes to externality and internality regulations within the same domain (food policies).

[4] There is again a considerable difference between citizens with and without a university education, where those who are university educated are more supportive of government interventions in all three domains; the differences are statistically significant at the 0.1 percent level using a proportion test. However, there is a difference in attitudes to government intervention even between experts and university-educated citizens. Among the university educated, the shares supporting government intervention are 0.75, 0.61, and 0.61, respectively. The differences between those who are university educated and the two expert groups are statistically significant at the 0.1 percent level using a proportion test.

[5] Using a proportion test, we can reject the null hypothesis of equal shares at the 0.1 percent level for all three groups.

Moreover, the support for government interventions in the climate domain is higher in the transport domain than in the food domain. The difference is statistically significant for citizens (p-value=0.000) and the two expert groups (academics: p-value=0.000; civil servants: p-value=0.039). Figure 3 presents the responses for the different groups of academics and experts.

Figure 3. Attitudes to government intervention in each of three domains: shares supporting government intervention.



The heterogeneity within the academic group is limited. Law scholars are overall the least favorable to policies to influence behavior while political scientists are the most favorable.[6] Across all academic groups, we find a majority in favor of policies

[6] Using the Kruskal-Wallis test, we cannot reject the null that the samples are from identical populations for food and health (p-value=0.394) and transport and climate (p-value=0.126). For food and climate, the null is rejected at the 10 percent significance level only (p-value=0.058).

aimed at influencing behavior. Notably, economists are about as positive to government intervention as other academic groups. Moreover, a majority of economists are in favor of regulating both externalities and internalities, but they do show stronger preferences for regulating externalities.

While the attitudes among academic experts are surprisingly similar across subject fields, the differences between the three civil servant groups are strikingly large. While we can of course not claim any causality, it is interesting to note that experts at the EPA – the agency that focuses most on climate-change policies[7] – are much more likely to favor climate policy interventions in both domains; the difference compared with the other expert groups is statistically significant at the 0.1 percent level. For example, only about 10 percent of the experts at the EPA do not say yes to government interventions in the transport and climate domain whereas the corresponding figure is about 46 percent at the Transport Agency. On the other hand, experts at the Swedish Food Agency – the agency that focuses on health-related policies – are not more likely to favor government health policy interventions.[8]

6. Which kinds of policies are favored by citizens and experts?

To say something about attitudes in more specific situations, we asked respondents for their attitudes to six specific policy instruments in each domain: quotas, taxes, manipulation of choice architecture (default or product placement), mandatory information disclosure, mandatory discouraging information disclosure, and mandatory encouraging information disclosure; see Table 1.

[7] While both the EPA and the Transport Agency do work related to both the climate and transport, the EPA naturally focuses more on the climate and the Transport Agency on the transportation perspective.

[8] Using the Kruskal-Wallis test, we can reject the null that the civil servant samples are from identical populations for food and climate (p-value<0.000) and transport and climate (p-value<0.000). For food and health, the null is not rejected (p-value=0.136) and all three civil servant groups are largely in agreement that the government should influence people's consumption of sugar and fats.

Table 1. Detailed policies in terms of quotas, tax shifts, manipulation of choice architecture (nudge), and three different information disclosures, for each domain.

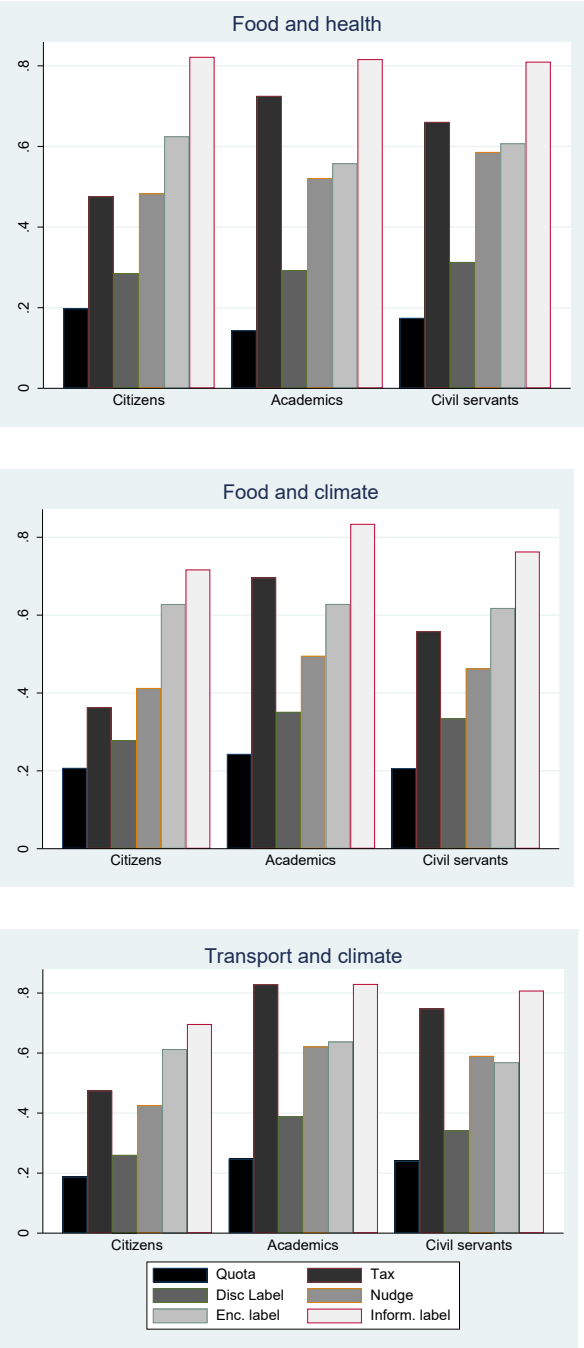
Food and Health Policies	Food and Climate Policies	Transport and Climate Policies
Consumption limits on foods so that each person would not be able to buy more than a certain amount per month of foods that contain high levels of sugar and harmful fats.	Consumption limits on foods with a very high climate impact. Each person in Sweden would be able to buy only a certain amount of food with a very high climate impact per month.	Introduction of limits on how much a person is allowed to travel by air in a year. When the limit is reached, the person would not be able to travel by air again until the following year.
Tax shifts on food so that foods that contain high levels of sugar and harmful fats would become more expensive than today, while healthier foods would become cheaper.	Tax shifts on food so that foods with a higher climate impact, such as red meat, would become considerably more expensive than today, while food products with a low climate impact would become cheaper.	Tax shifts on travel based on climate impact. With this measure, for example air travel within and from Sweden would become more expensive than today, in particular longer-distance flights with a high climate impact, while domestic train travel would become cheaper.
Regulation of product display: Stores would have to display foods with low levels of sugar and harmful fats in more visible, more attractive spots compared with food products with high levels of sugar and harmful fats.	Regulation of where in-store products can be displayed. Stores would have to display foods with a lower climate impact in more visible, more attractive spots compared with food products with a higher climate impact.	Making carbon offsetting a required default option when people book flights. With this measure, airlines and travel agencies would have to offer customers a default option of offsetting the carbon emissions from the planned trip when booking flights. Customers not interested in the carbon offsetting option would have to actively reject the option.
Mandatory informative labeling. Current labels on food products are complemented with traffic-light labels: a color coding of food products where green would mean low levels/healthy choice, yellow would mean moderate levels, and red would mean high levels/unhealthy choice.	Mandatory informative climate labeling: With this measure, color-coded food labels would be required, where green would mean low climate impact/good choice, yellow would mean moderate climate impact, and red would mean high climate impact/bad choice.	Mandatory provision of information. Airlines and other companies that sell airline tickets would have to inform prospective customers about the climate impacts of air travel and other means of transportation.
Mandatory discouraging labeling. Food products with high levels of sugar and harmful fats would clearly display the following text, in bold: **This product contains high levels of sugar or harmful fats and may therefore damage your health. Products of this type should be avoided!**	Mandatory discouraging labeling. Food products with a high climate impact would display the following text, in bold: **Climate change is a very serious problem for humanity. This food product has a very strong negative climate impact. Products of this type should be avoided!**	Mandatory provision of discouraging information. Airlines and other companies that sell airline tickets would have to display the following text, in bold: **Climate change is a very serious problem for humanity. You should therefore avoid traveling in ways known to have a high climate impact, such as by air!**
Mandatory encouraging labeling. Food products with low levels of sugar and harmful fats would clearly display the following text, in bold: **This product contains high levels of sugar or harmful fats and may therefore benefit your health. Products of this type are good choices!**	Mandatory encouraging labeling. Food products with a low climate impact would display the following text, in bold: **Climate change is a very serious problem for humanity. This food product has a very low climate impact. Products of this type are good choices!**	Mandatory provision of encouraging information. Train operators and other companies that sell train tickets would have to display the following text, in bold: **Climate change is a very serious problem for humanity. You should therefore choose to travel in ways known to have a low climate impact, such as by train!**

The set of questions is broad and includes both what Chater and Loewenstein (2023) denote i- and s-frame interventions. Since the acceptability of regulatory interventions is likely to depend on perceived effectiveness (Bang et al., 2018; Dechezleprêtre et al., 2022), which is not what we primarily want to investigate, the respondents were told to rate the instruments as if they were equally efficient. Yet, we can of course not rule out that perceived effectiveness may still have affected the responses.

The support for each policy was expressed on a five-level scale from *strongly against* to *strongly in favor*. In our presentation, we use two levels only, where those who state that they are strongly in favor or in favor of the policy are treated as supporting the policy, while the others are treated as not supporting the policy. The qualitative pictures are the same when looking at the whole distribution of responses; see appendix Tables A2–A4. The share of people supporting each policy instrument for each of the three domains is presented in Figure 4. The policies are ordered in terms of our perception of intrusiveness, starting with the most intrusive bar to the left, namely, quota, and followed by tax, discouraging label, nudge, encouraging label, and finally the least intrusive measure: informative label.

The least intrusive policy instrument, informative labels, is consistently the one with the strongest support, i.e., for each domain and for each group of respondents. The second least intrusive policy instrument, encouraging labels, is also the second most popular among the citizens. For the expert samples, the tax instrument is instead most often the second most popular policy instrument. Discouraging labels are less popular than encouraging labels. Pure nudges (manipulation of choice architecture and display of items) are popular although less popular than taxes among experts, and less popular than taxes among citizens within the transport and climate domain.

Figure 4. Distribution of support for the policy instruments in the three domains: share of respondents who for each policy choose either *strongly in favor of* or *in favor of*.



The most intrusive policy instrument, quotas, is not surprisingly the least favored one. Still, around 20 percent of the citizens support such far-reaching restrictions on individual liberty in all three domains. Among the expert samples, the corresponding support is lower in the food and health domains and larger in the climate domain. The rankings of the extent of support of the policies are overall similar across the domains and groups. There is only one clear exception, the tax instrument is much more favored among experts across all domains.

The support for the different policy instruments is slightly stronger in the food and health domain, which is consistent with our findings of stronger support for government interventions in general in this domain. Again, this seems to imply that both citizens and experts are more in favor of using liberty-reducing measures when dealing with internalities compared to externalities.

In the appendix, we report the support across the expert groups. The ranking is stable across academic groups (Table A5), while there is considerable heterogeneity among different groups of civil servants. The EPA experts are more favorable to taxes compared with the two other groups (Table A6).[9]

7. Conclusion

Do experts hold different attitudes than citizens to liberty-reducing policy measures? The short answer is yes. Experts in our survey are much more inclined than citizens to support such measures and are hence more inclined to give up individual liberty; this holds both for the general and more specific questions. Are

[9] To explore the differences between the groups and to what extent they depend on differences in education we estimate regression models with and without university education. Regression models are presented in Tables A7–A9 in the appendix. Note that the reference group consists of ordinary citizens. In general, the differences between experts and citizens are reduced when controlling for university education, but in many cases there are still statistically significant differences.

the experts also more inclined to support such measures within their expert area? This answer is mixed. On the one hand, experts at the EPA (the agency that focuses the most on climate policies) are much more favorable to climate policy interventions than at the other agencies. On the other hand, we do not observe that experts at the Swedish Food Agency (the agency that focuses most on food and health policies) are more positive about health policy interventions than at the other agencies.

We found that a large majority of both citizens and experts support government interventions through food-related health policies, i.e., they support policies related to internalities. We find that both experts and citizens are more positive about food policies handling food-related health internalities compared with policies that deal with food-related climate change externalities. This is in contrast to both conventional economic theory and the harm principle of political philosophy.

When it comes to more specific policy instruments, not surprisingly and with few exceptions, our results suggest that people prefer less intrusive policies such as mandatory information disclosure than more intrusive policies such as consumption quotas. Yet, surprisingly large fractions of both citizens and civil servants are positive to very intrusive measures such as individual quotas for unhealthy foods and air travel. Another finding is that economists are about as positive to government interventions as other academic groups. There is clearly room for much further research, based on different samples and methods, on the differences between citizens' and experts' opinions on public policies and fundamental values such as liberty.

References

Ambuehl, S., Bernheim, D, Ockenfels, A. 2021. "What motivates paternalism? An experimental study." *American Economic Review*, *111*, 787-830.

Bang, H.M, Shu, S.B, Weber, E. 2018. ”The role of perceived effectiveness on the acceptability of choice architecture.” *Behavioural Public Policy*, 1-21.

Benartzi, S., Beshears, J., Milkman, K., Sunstein, C., Thaler, R. Shankar, M. Tucker-Ray, W. Congdon, W., Galing, S. 2017. “Should Governments Invest More in Nudging?” *Psychological Science* 28, 1041-1055.

Bernheim, D. 2016. “The good, the bad, and the ugly: A unified approach to behavioral welfare economics.” *Journal of Benefit-Cost Analysis*, 7(1), 12–68.

Bernheim, D., Rangel, A. 2009. “Beyond revealed preference: Choice- theoretic foundations for behavioral welfare economics.” *Quarterly Journal of Economics*, 124(1), 51–104.

Bertsou, E., Caramani, D. 2022. “People haven't had enough of experts: Technocratic attitudes among citizens in nine European democracies. ”*American Journal of Political Science*, *66*(1), 5-23.

Carlsson, F., Daruvala, D., Jaldell, H. 2012. “Do administrators have the same priorities for risk reductions as the general public?” *Journal of Risk and Uncertainty*, 45(1), 79-95.

Carlsson, F., Gravert, C., Johansson-Stenman, O., Kurz, V., 2021. “The Use of Green Nudges as an Environmental Policy Instrument.” *Review of Environmental Economics and Policy*, 15, 216-237.

Carlsson Fredrik and Olof Johansson-Stenman. 2012. “Behavioral Economics and Environmental Policy.” *Annual Review of Resource Economics*, 4, 75-99.

Carlsson, F., Kataria, M., Lampi, E.. 2011. “Do EPA administrators recommend environmental policies that citizens want?” *Land Economics*, 87(1), 60-74.

Chater, N., Loewenstein, G., 2023. “The i-Frame and the s-Frame: How Focusing on the Individual-Level Solutions Has Led Behavioral Public Policy Astray.” *Behavioral and Brain Sciences*, 46, e147.

Dechezleprêtre, A., Fabre, A., Kruse, T., Planterose, B., Chico, A. S., Stantcheva, S. 2022. "Fighting climate change: International attitudes toward climate policies." (No. w30265) National Bureau of Economic Research.

DellaVigna, S., Linos, E. 2022. "RCTs to scale: Comprehensive evidence from two nudge units." *Econometrica*, 90(1), 81-116.

Drupp, M., Nesje, F., Schmidt, R., 2023. "Pricing carbon: Evidence from expert recommendations." *American Economic Journal: Economic Policy*, forthcoming.

Gigerenzer, G., 2015. "On the supposed evidence for libertarian paternalism." *Review of Philosophy and Psychology* , 6, 361–383.

Glaeser, E., 2004. "Psychology and the market." *American Economic Review*, 94(2), 408–413

Gordon, R., Dahl, G., 2013. "Views among Economists: Professional Consensus or Point-Counterpoint?" *American Economic Review*, 103 (3), 629-635.

Hagman, W., Andersson, D., Västfjäll, D. Tinghög, G., 2015. "Public views on policies involving nudges." *Review of Philosophy and Psychology*, *6*(3), 439-453.

Hands, W., 2021. "Libertarian Paternalism: Making Rational Fools." *Review of Behavioral Economics*, 2021, 8, 305–326.

Jung, J.Y., Mellers, B., 2016. "American attitudes toward nudges." *Judgment & Decision Making*, *11*(1).

Mill, J.S., (1999[1859]). *On Liberty*, Longman, Roberts & Green, London.

Reisch, L.A., Sunstein, C., 2016. "Do Europeans like nudges?" *Judgment and Decision Making*, *11*(4), 310-325.

Salanié, F., Treich, N. 2009. "Regulation in happyville." *The Economic Journal*, 119(537), 665-679.

Sapienza, P., Zingales, L., 2013. "Economic Experts versus Average Americans." *American Economic Review*, 103(3): 636-42.

Scoccia, D., 2008. “In Defense of Hard Paternalism.” *Law and Philosophy*, 27, 4, 351-381.

Stantcheva, S., 2023. “How to Run Surveys: A Guide to Creating Your Own Identifying Variation and Revealing the Invisible.” *Annual Review of Economics*, 15(1).

Statistics Sweden. 2019. Befolkning 16-74 år efter region, utbildningsnivå, ålder och kön. År 1985 - 2018. http://www.statistikdatabasen.scb.se/

Sugden, R., 2018. *The Community of Advantage: A Behavioural Economist’s Defence of the Market*. Oxford University Press.

Sunstein, C., 2014. “Nudging: a very short guide.” *Journal of Consumer Policy*, *37*(4), 583-588.

Sunstein, C., 2022. “The Rhetoric of Reaction Redux.” *Behavioural Public Policy*, 7(3), 825-837.

Sunstein, C, Reisch, L. Kaiser, M. 2019. “Trusting nudges? Lessons from an international survey.” *Journal of European Public Policy*, 26(10), 1417-1443.

Sunstein, C., Reisch, L., Rauber, J. 2018. “A worldwide consensus on nudging? Not quite, but almost.” *Regulation & Governance*, 12(1), 3-22.

Stern, N. (2022) “A time for action on climate change and a time for change in economics”. *Economic Journal* 132(644), 1259–1289.

Thaler, R, Sunstein, C., 2003. “Libertarian paternalism.” *American Economic Review*, *Papers and Proceedings*, 93(2), 175-179.

Thaler, R, Sunstein, C.,. 2008. *Nudge: Improving Decisions about Health, Wealth, and Happiness*. New Haven, CT: Yale University Press.

Thaler, R, Sunstein, C.,. 2021. *Nudge: The Final Edition*. Penguin Books.