ONLINE APPENDIX

What Motivates Paternalism? An Experimental Study

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Table of Contents

A Proofs **1**

A.1 Proof of Proposition 1 . . . 1

A.2 Proof of Proposition 2 . . . 3

B Additional Analysis **7**

B.1 The Induced Chooser Preferences and Exogenous Removal conditions . . . 7

B.2 Assessing anchoring and demand for consistency . . . 8

B.3 Attention test . . . 8

B.4 Projective Paternalism and Information treatments . . . 9

B.5 Choosers' choices . . . 11

B.6 Price sensitivity . . . 12

B.7 Beliefs about Chooser welfare . . . 13

B.8 Projective paternalism, beliefs, and measurement error . . . 15

B.9 Choice Architects' own choices . . . 16

B.10 Judgments about welfare effects of actual paternalistic policies . . . 17

B.11 Robustness check concerning judgments of actual paternalistic policies . . . 17

B.12 Beliefs about reasons for impatient choice . . . 20

B.13 Performance on memory check . . . 20

C Vignette experiment **22**

C.1 Design . . . 22

C.2 Analysis . . . 22

D Experiment design and implementation details **25**

D.1 Experiment design: comprehensive description . . . 25

D.2 Sessions . . . 28

D.3 Instructions for the online component . . . 29

D.4 Instructions for the laboratory component . . . 32

D.5 Vignette experiment . . . 46

A Proofs

A.1 Proof of Proposition 1

Mandates and caps We let q and h denote the density functions of Q and H, respectively. We let $h_u(u)$ denote the density of the marginal of H with respect to u, and we define $f_u(u)$ likewise. Further, we let $h_m(m \mid u)$ denote the density of the distribution of m conditional on u according to H. For $(\underline{r}, \overline{r}) \in \mathbb{R}^2$, aggregate welfare is given by

$$\begin{aligned}
W(\underline{r}, \overline{r}) &= \gamma \int_{-\infty}^{\infty} l\left(\max\left\{\underline{r}, \min\left\{\overline{r}, u\right\}\right\} - u\right) q(u) du \\
&\quad + (1-\gamma) \int_{-\infty}^{\infty} \left\{ \int_{0}^{\infty} l\left(\max\left\{\underline{r}, \min\left\{\overline{r}, u - m\right\}\right\} - u\right) h_m(m \mid u) dm \right\} h_u(u) du \\
&= \gamma \left[\int_{u \leq \underline{r}} l\left(\underline{r} - u\right) q(u) du + \int_{u \geq \overline{r}} l\left(\overline{r} - u\right) q(u) du \right] \\
&\quad + (1-\gamma) \int_{-\infty}^{\infty} \left\{ \int_{0}^{u-\overline{r}} l\left(\overline{r} - u\right) h_m(m \mid u) dm + \int_{u-\overline{r}}^{u-\underline{r}} l\left(-m\right) h_m(m \mid u) dm \right. \\
&\quad \left. + \int_{u-\underline{r}}^{\infty} l\left(\underline{r} - u\right) h_m(m \mid u) dm \right\} h_u(u) du
\end{aligned} \tag{2}$$

Recalling that we interpret $\underline{r} = -\infty$ as the absence of a mandate and $\overline{r} = \infty$ as the absence of a cap, we extend the definition of W to the boundaries of $[-\infty, \infty) \times (-\infty, \infty]$ as follows:

$$\begin{aligned}
W(\underline{r}, \infty) &= \gamma \int_{u \leq \underline{r}} l\left(\underline{r} - u\right) q(u) du \\
&\quad + (1-\gamma) \int_{-\infty}^{\infty} \left\{ \int_{-\infty}^{u-\underline{r}} l\left(-m\right) h_m(m \mid u) dm + \int_{u-\underline{r}}^{\infty} l\left(\underline{r} - u\right) h_m(m \mid u) dm \right\} h_u(u) du
\end{aligned} \tag{3}$$

for $\underline{r} \in \mathbb{R}$,

$$\begin{aligned}
W\left(-\infty, \overline{r}\right) &= \gamma \int_{u \geq \overline{r}} l\left(\overline{r} - u\right) q(u) du \\
&\quad + (1-\gamma) \int_{-\infty}^{\infty} \left\{ \int_{0}^{u-\overline{r}} l\left(\overline{r} - u\right) h_m(m \mid u) dm + \int_{u-\overline{r}}^{\infty} l\left(-m\right) h_m(m \mid u) dm \right\} h_u(u) du
\end{aligned} \tag{4}$$

for $\overline{r} \in \mathbb{R}$, and

$$W(-\infty,\infty)=(1-\gamma)\int_{-\infty}^{\infty}\left\{\int_{0}^{\infty}l\left(-m\right)h_m(m\mid u)dm\right\}h_u(u)du \tag{5}$$

Given our assumption that $|l|$ has a bounded derivative, we can bound the terms $l\left(\underline{r}-u\right)$ and $l\left(\underline{r}-u\right)$ above and below by linear functions of u, and we can bound $l\left(-m\right)$ above and below by linear functions of m. Because the means of u and m are finite for both G and H (Assumption 2), we can then conclude that $W(\underline{r},\overline{r})$ is finite for all $(\underline{r},\overline{r})\in[-\infty,\infty)\times(-\infty,\infty]$. Using the preceding expressions and bounds, it is also straightforward to verify that

$$\lim_{\overline{r}\to\infty}W(\underline{r},\overline{r})=W(\underline{r},\infty)$$

for $\underline{r}\in\mathbb{R}\cup\{-\infty\}$, and

$$\lim_{\underline{r}\to-\infty}W(\underline{r},\overline{r})=W(-\infty,\overline{r})$$

for $\overline{r}\in\mathbb{R}\cup\{\infty\}$.

Part (i) By applying the Leibniz rule to (2) (or to (4), in case of $\underline{r}=-\infty$), we learn that, for all $(\underline{r},\overline{r})\in[-\infty,\infty)\times\mathbb{R}$:

$$\begin{aligned}\frac{\partial W(\underline{r},\overline{r})}{\partial\overline{r}} &= \gamma\int_{u\geq\overline{r}}l'\left(\overline{r}-u\right)q(u)du+(1-\gamma)\int_{-\infty}^{\infty}\left\{\int_{0}^{u-\overline{r}}l'\left(\overline{r}-u\right)h_m(m\mid u)dm\right\}h_u(u)du\\ &\geq (1-\gamma)\int_{-\infty}^{\infty}l'\left(\overline{r}-u\right)P_H\left(m<u-\overline{r}\mid u\right)h_u(u)du,\end{aligned}$$

where the strictness of the inequality follows from $l'\left(\overline{r}-u\right)>0$ for $u>\overline{r}$. If $u<\overline{r}$, then $P_H(m\leq u-\overline{r}|u)\leq P_H(m\leq 0|u)=0$ by Assumption 1. Moreover, for $u\geq\overline{r}$, we have $l'\left(\overline{r}-u\right)\geq 0$, with strict inequality in the case of $u>\overline{r}$. Therefore the derivative is strictly positive. Recalling in addition that $\lim_{\overline{r}\to\infty}W(\underline{r},\overline{r})=W(\underline{r},\infty)$ for $\underline{r}\in\mathbb{R}\cup\{-\infty\}$, we see that the Choice Architect does not impose a binding upper bound $\overline{r}$.

Part (ii) We set $\overline{r}=\infty$ (based on part (i)) and, for simplicity, suppress it in the notation. Applying the Leibniz rule to (3), we can write $\frac{dW(\underline{r})}{d\underline{r}}$ as follows:

$$\begin{aligned}\frac{dW(\underline{r})}{d\underline{r}} &= \gamma\int_{u\leq\underline{r}}l'\left(\underline{r}-u\right)q(u)du+(1-\gamma)\int_{-\infty}^{\infty}\left\{\int_{u-\underline{r}}^{\infty}l'(\underline{r}-u)h_m(m\mid u)dm\right\}h_u(u)du \qquad (6)\\ &= \int_{u\leq\underline{r}}l'\left(\underline{r}-u\right)\left[\gamma q(u)+\left(1-\gamma\right)h_u(u)\right]du\\ &\quad +(1-\gamma)\int_{u>\underline{r}}l'(\underline{r}-u)P_H\left(m\geq u-\underline{r}\mid u\right)h_u(u)du\end{aligned}$$

The first term is strictly negative while the second is strictly positive. It easy to check that, as $\underline{r}\to\infty$, the first term remains bounded away from zero while the second converges to zero. It follows that there is some finite threshold, r^U, above which W is decreasing in $\underline{r}$.

Endowing the extended real half-line, $[-\infty, r^U]$, with the order topology renders it compact. We have seen that $W(\underline{r})$ is differentiable, and hence continuous (in the order topology), on $\mathbb{R}$. Adding the fact that $\lim_{\underline{r}\to-\infty} W(\underline{r}) = W(-\infty)$, we see that W is continuous on $[-\infty, r^U]$. It therefore follows that the set of maximizers is a non-empty closed subset of $[-\infty, r^U]$, and consequently that the smallest maximizer is well-defined.

Surrogate choices (part (iii)) We begin by writing aggregate welfare as a function of the surrogate choice, $s \in \mathbb{R}$:

$$W(s) = \int_{-\infty}^{+\infty} l\left(s-u\right) f_u(u) du \tag{7}$$

It follows that

$$\begin{aligned}\frac{dW(s)}{ds} &= \int_{-\infty}^{+\infty} l'\left(s-u\right) f_u(u) du \\ &= \int_{u\leq s} l'\left(s-u\right) f_u(u) du + \int_{u\geq s} l'\left(s-u\right) f_u(u) du\end{aligned}$$

The first term is strictly negative, while the second is strictly positive. Because we have assumed that l' is bounded, it follows that the first term converges to zero as $s \to -\infty$ while the second remains bounded away from zero; consequently there exists some finite value s_L such that the derivative is strictly positive for $s < s_L$. Similarly, the second term converges to zero as $s \to \infty$ while the first remains bounded away from zero; consequently there exists some finite value s_U such that the derivative is strictly negative for $s > s_U$. It follows that any optimum on $[s_L, s_U]$ is a global optimum. Because W is continuous in $s \in \mathbb{R}$, the set of maximizers is a non-empty closed subset of $[s_L, s_U]$, and consequently the smallest maximizer is well-defined.

A.2 Proof of Proposition 2

Our claims concerning conventional behavioral welfarism follow directly from the fact that, within our model, the only connection between c^A on the one hand and either mandates or surrogate choices on the other runs through the Choice Architect's beliefs about the distributions of u and m for Choosers. Consequently, the proof focuses on the implications of ideals-projective and mistakes-projective paternalism.

Mandates and caps For the purpose of this proof, we will use $\Phi(x)$ and $\phi(x)$ to denote, respectively, the standard normal CDF and density at x. The marginal distributions for u and z are normal with means and standard deviations of (μ_u, σ_u) and (μ_m, σ_m), respectively. The conditional distributions for u and z are normal with means and standard deviations of $(\hat{\mu}_u(z), \hat{\sigma}_u) = \left(\mu_u + \rho\frac{\sigma_u}{\sigma_m}(z-\mu_m), \sigma_u\sqrt{1-\rho^2}\right)$ and $(\hat{\mu}_m(u), \hat{\sigma}_m) = \left(\mu_m + \rho\frac{\sigma_m}{\sigma_u}(u-\mu_u), \sigma_m\sqrt{1-\rho^2}\right)$. Because we are holding the standard deviations and correlations fixed, we will write the optimal mandate as $\underline{r}^*(\mu_u, \mu_m)$.

Lemma 1.

(i) $\underline{r}^*(\mu_u, \mu_m)$ *is increasing in* μ_m.

(ii) $\underline{r}^*(\mu_u, \mu_m)$ *is increasing in* μ_u.

Proof. **Part (i)** We begin by rewriting the objective function (3) to reflect Assumption 4. For clarity, we suppress the dependence of W on $\overline{r}$ (which we know is fixed at ∞), while adding $\mu = (\mu_u, \mu_m)$ as explicit arguments.

$$\begin{aligned}
W(\underline{r}, \mu) &= \int_{-\infty}^{\infty} \left\{ \int_M l\left(\max\left\{\underline{r}, u - \max\{z, 0\}\right\} - u\right) \phi\left(\frac{z - \hat{\mu}_m(u)}{\hat{\sigma}_m}\right) \frac{1}{\hat{\sigma}_m} dz \right\} \phi\left(\frac{u - \mu_u}{\sigma_u}\right) \frac{1}{\sigma_u} du \\
&= \int_{\underline{r}}^{\infty} \left\{ \int_{-\infty}^{0} l(0)\, \phi\left(\frac{z - \hat{\mu}_m(u)}{\hat{\sigma}_m}\right) \frac{1}{\hat{\sigma}_m} dz + \int_{0}^{u-\underline{r}} l(-z)\, \phi\left(\frac{z - \hat{\mu}_m(u)}{\hat{\sigma}_m}\right) \frac{1}{\hat{\sigma}_m} dz \right. \\
&\quad \left. + \int_{u-\underline{r}}^{\infty} l(\underline{r} - u)\, \phi\left(\frac{z - \hat{\mu}_m(u)}{\hat{\sigma}_m}\right) \frac{1}{\hat{\sigma}_m} dz \right\} \phi\left(\frac{u - \mu_u}{\sigma_u}\right) \frac{1}{\sigma_u} du \\
&\quad + \int_{-\infty}^{\underline{r}} l(\underline{r} - u)\, \phi\left(\frac{u - \mu_u}{\sigma_u}\right) \frac{1}{\sigma_u} du
\end{aligned} \tag{8}$$

Applying the Leibniz rule, we obtain:

$$\begin{aligned}
\frac{\partial W(\underline{r}, \mu)}{\partial \underline{r}} &= \int_{\underline{r}}^{\infty} l'(\underline{r} - u) \left[1 - \Phi\left(\frac{u - \underline{r} - \hat{\mu}_m(u)}{\hat{\sigma}_m}\right)\right] \phi\left(\frac{u - \mu_u}{\sigma_u}\right) \frac{1}{\sigma_u} du \\
&\quad + \int_{-\infty}^{\underline{r}} l'(\underline{r} - u)\, \phi\left(\frac{u - \mu_u}{\sigma_u}\right) \frac{1}{\sigma_u} du
\end{aligned} \tag{9}$$

Now consider $\mu = (\mu_u, \mu_m)$ and $\mu' = (\mu_u, \mu'_m)$ with $\mu'_m > \mu_m$. Then

$$\begin{aligned}
\frac{\partial W(\underline{r}, \mu')}{\partial \underline{r}} - \frac{\partial W(\underline{r}, \mu)}{\partial \underline{r}} &= \int_{\underline{r}}^{\infty} l'(\underline{r} - u) \left[\Phi\left(\frac{u - \underline{r} - \left(\mu_m - \rho \frac{\sigma_m}{\sigma_u}(u - \mu_u)\right)}{\hat{\sigma}_m} \right) \right. \\
&\quad \left. - \Phi\left(\frac{u - \underline{r} - \left(\mu'_m + \rho \frac{\sigma_m}{\sigma_u}(u - \mu_u)\right)}{\hat{\sigma}_m} \right) \right] \phi\left(\frac{u - \mu_u}{\sigma_u}\right) \frac{1}{\sigma_u} du
\end{aligned}$$

With $\mu'_m > \mu_m$, the term in square brackets is strictly positive for all u. With $u > \underline{r}$, we have $l'(\underline{r} - u) > 0$. Thus, $\frac{\partial W(\underline{r}, \mu)}{\partial \underline{r}}$ is strictly increasing in μ_m. It then follows from Topkis' monotone selection theorem that $\underline{r}^*(\mu_u, \mu_m) \leq \underline{r}^*(\mu_u, \mu'_m)$, as claimed.

Part (ii) Rewriting (2) for the special case of $\overline{r} = \infty$ based on our distributional assumptions, we see that for any $k \in \mathbb{R}$, we have

$$
\begin{aligned}
W(\underline{r}+k,\mu_u+k,\mu_m) &= \gamma \int_{-\infty}^{\infty} l\left(\max\left\{\underline{r}+k,u\right\}-u\right)\phi\left(\frac{u-(\mu_u+k)}{\sigma_u}\right)\frac{1}{\sigma_u}du \\
&+(1-\gamma)\int_{-\infty}^{\infty}\left\{\int_{0}^{\infty} l\left(\max\left\{\underline{r}+k,u-m\right\}-u\right)\phi\left(\frac{z-\left(\mu_m+\rho\frac{\sigma_m}{\sigma_u}(u-\mu_u-k)\right)}{\hat{\sigma}_m}\right)\frac{1}{\hat{\sigma}_m}dz\right\} \\
&\qquad\qquad \times\ \phi\left(\frac{u-(\mu_u+k)}{\sigma_u}\right)\frac{1}{\sigma_u}du
\end{aligned}
$$

Now we define $v=u-k$. With a change of variables from u to v, we can then write the welfare function as:

$$
\begin{aligned}
W(\underline{r}+k,\mu_u+k,\mu_m) &= \gamma \int_{-\infty}^{\infty} l\left(\max\left\{\underline{r},v\right\}-v\right)\phi\left(\frac{v-\mu_u}{\sigma_u}\right)\frac{1}{\sigma_u}dv \\
&+(1-\gamma)\int_{-\infty}^{\infty}\left\{\int_{0}^{\infty} l\left(\max\left\{\underline{r},v-m\right\}-v\right)\phi\left(\frac{z-\left(\mu_m+\rho\frac{\sigma_m}{\sigma_u}(v-\mu_u)\right)}{\hat{\sigma}_m}\right)\frac{1}{\hat{\sigma}_m}dz\right\}\phi\left(\frac{v-\mu_u}{\sigma_u}\right)\frac{1}{\sigma_u}dv \\
&= W(\underline{r},\mu_u,\mu_m)
\end{aligned}
$$

It follows that increasing μ_u by k simply shifts the entire welfare function rightward by k, which means any maximizer increases by k. The same statement obviously applies to the smallest maximizer. □

Lemma 1 immediately yields the following corollary:

Corollary 1. *For any (μ_u,μ_m) and (μ_u',μ_m') with $\mu_u'\geq\mu_u$ and $\mu_m'\geq\mu_m$ and at least one inequality strict, we have $\underline{r}^*(\mu_u',\mu_m')>\underline{r}^*(\mu_u,\mu_m)$.*

Proof. We can decompose a change from (μ_u,μ_m) to (μ_u',μ_m') into two steps: (a) (μ_u,μ_m) to (μ_u,μ_m'); (b) (μ_u,μ_m') and (μ_u',μ_m'). Applying Lemma 1 to each of these steps delivers the desired conclusion.

□

The proposition concerns the distribution of $\underline{r}^*$ conditional on c^A, the selection Choice Architects make for themselves. We use the preceding property to show that this distribution increases (in the sense of FOSD) as we increase the Choice Architects' consumption level from c^A to any $c^{A'}>c^A$.

Let M_u denote the random variable with distribution $G_{u^A}(\cdot|c^A)$ and M_u' denote the random variable with distribution $G_{u^A}(\cdot|c^{A'})$. Define M_m and M_m' likewise. Assumption 3 implies that $G_{u^A}(\cdot|c^{A'})$ first-order dominates $G_{u^A}(\cdot|c^A)$, and $G_{m^A}(\cdot|c^A)$ first-order dominates $G_{m^A}(\cdot|c^{A'})$. By Strassen's monotone coupling theorem, there exists an underlying state space Ω such that we can write all of these random variables as functions of the state ω, with $M_u'(\omega)\geq M_u(\omega)$ and $M_m'(\omega)\leq M_m(\omega)$, where in each case the inequality is strict for a set of states with positive measure.

By the definition of ideals-projection, there exists a function $\varphi:\mathbb{R}\to\mathbb{R}^2$ such that $(\mu_u,\mu_m)=\varphi(u^A)$ with φ strictly increasing in the first argument and weakly increasing in the second. For any given state

ω we have $M_u'(\omega) \geq M_u(\omega)$, which according to the Corollary implies $\underline{r}^*(\varphi(M_u'(\omega))) \geq \underline{r}^*(\varphi(M_u(\omega)))$, with strict inequality for a set of states with positive measure. Thus, with ideals-projective paternalism, the distribution of $\underline{r}^*$ conditional on $c^{A'}$ first-order dominates the distribution of $\underline{r}^*$ conditional on c^A.

By the definition of mistakes-projection, there exists a function $\psi : \mathbb{R} \to \mathbb{R}^2$ such that $(\mu_u, \mu_m) = \psi(m^A)$ with ψ weakly increasing in the first argument and strictly increasing in the second. For any given state ω we have $M_u(\omega) \geq M_u'(\omega)$, which according to the Corollary implies $\underline{r}^*(\varphi(M_u(\omega))) \geq \underline{r}^*(\varphi(M_u'(\omega)))$, with strict inequality for a set of states with positive measure. Thus, with mistakes-projective paternalism, the distribution of $\underline{r}^*$ conditional on c^A first-order dominates the distribution of $\underline{r}^*$ conditional on $c^{A'}$.

Surrogate choices Because we are holding the standard deviations and correlations fixed, we will write the optimal surrogate choice as $s^*(\mu_u, \mu_m)$.

Lemma 2.

(i) $s^*(\mu_u, \mu_m)$ is independent of μ_m.

(ii) $s^*(\mu_u, \mu_m)$ is increasing in μ_u.

Proof. Part (i) follows immediately from equation (7), which implies that aggregate welfare is independent of μ_m.

For part (ii), we begin by writing aggregate welfare as a function of the surrogate choice, $s \in \mathbb{R}$, under our distributional assumptions:

$$W(s, \mu) = \int_{-\infty}^{+\infty} l(s-u)\, \phi\left(\frac{u-\mu_u}{\sigma_u}\right) \frac{1}{\sigma_u} du \tag{10}$$

Note that for any $k \in \mathbb{R}$, we have

$$W(s+k, \mu_u+k, \mu_m) = \int_{-\infty}^{+\infty} l(s+k-u)\, \phi\left(\frac{u-(\mu_u+k)}{\sigma_u}\right) \frac{1}{\sigma_u} du$$

Now we define $v = u - k$. With a change of variables from u to v, we can then write the welfare function as:

$$W(s+k, \mu_u+k, \mu_m) = \int_{-\infty}^{+\infty} l(s-v)\, \phi\left(\frac{v-\mu_u}{\sigma_u}\right) \frac{1}{\sigma_u} dv = W(s, \mu_u, \mu_m)$$

It follows that increasing μ_u by k simply shifts the entire welfare function rightward by k, which means any maximizer increases by k. The same statement obviously applies to the smallest maximizer.

□

The rest of the proof is essentially the same as that of Proposition 2, with $s^*(\mu_u, \mu_m)$ replacing $\underline{r}^*(\mu_u, \mu_m)$. The one material difference is that $s^*(\mu_u, \mu_m)$ is independent of μ_m. As a result, with mistakes-projective paternalism, we can only say that the distribution of s^* conditional on c^A *weakly* first-order dominates the distribution of $\underline{r}^*$ conditional on $c^{A'} > c^A$.

B Additional Analysis

B.1 The Induced Chooser Preferences and Exogenous Removal conditions

Here, we detail the Induced Chooser Preferences and Exogenous Removal conditions summarized in Section II.E of the main text.

The Induced Chooser Preferences condition The induced preference parameter $\hat{\delta}_i$ equals 0, 0.5, or 1, each with equal probability. These parameter values are chosen to minimize complexity. Choice Architects are aware of this distribution, but no Choice Architect knows the specific value of $\hat{\delta}_i$ that the Chooser assigned to her will face. We describe options as bundles (X, Y) of 'gold tokens' and 'silver tokens,' respectively, to be exchanged for Euros the day of the experiment. Choice Architects know that the Chooser will be able to exchange each gold token for one Euro, while he will receive $\hat{\delta}_i$ for each silver token.

In the Induced Chooser Preferences condition, the frequency with which Choice Architects exclude at least one option from a menu equals 22.6% (s.e. 2.1 percentage points). The corresponding number for decisions in the Main condition, by comparison, is much higher, 39.8% (s.e. 2.3 percentage points). As mentioned in the main text, the monotonic relationship between larger values of X and removal frequencies that characterizes the Main condition vanishes entirely. Removal rates for the options in the Induced Chooser Preferences condition with the largest, middle, and smallest values of X are 12.9% (s.e. 1.6%), 5.1% (s.e. 1.1%), and 7.8% (s.e. 1.3%), respectively.[1] Moreover, across all rounds and Choice Architects in the Main condition, subjects indicate in 29.6% (s.e. 2.2%) of cases that the unrestricted opportunity set is worse for the Chooser. This number drops to 15.3% (s.e. 1.8%) in the Induced Chooser Preferences condition. Similarly, the elicited compensating variations are more than twice as large in the Main condition as in the Induced Chooser Preferences condition: 0.079 (s.e. 0.015) versus 0.038 (s.e. 0.011).

The Exogenous Restriction condition As explained in the main text, in one round of this condition, Choice Architects decide between making all options available, removing the least patient option, and removing the two least patient options, whereas in another round of this condition, we exogenously remove the least patient option. We find that the availability frequency for the middle option falls slightly from 89.7% when the least restrictive opportunity set contains three options, to 85.8% when we remove the least patient option exogenously. One would expect to see some decline merely as a consequence of noisy choice. For example, if Choice Architects randomize between all their options with equal probabilities, then they would make the middle option available two-thirds of the time when all three options are available, versus one-half of the time when only two options are available. As explained in the main text, we control for the effects of noisy behavior by including two additional rounds that are identical to the first pair, except that the default is the most restrictive opportunity set, consisting of just the most patient option. By taking action, the Choice Architect adds rather than removes options. Random choosers will add options, but subjects who are motivated by the desire to restrict others' opportunity sets will not. In these two rounds, we find that the exogenous removal of the least patient option causes a similar decline in the availability of the middle

[1] The higher removal rate for the first option may reflect a variety of motives, including fairness concerns. A Chooser facing $\hat{\delta}_i = 0$ can obtain no more than €4 in the Induced Chooser Preferences condition. A Chooser facing $\hat{\delta}_i = 1$, in contrast, obtains €15 from choosing the first option. By removing that option, the Choice Architect can reduce inequality across Choosers.

option (76.2% and 73.9%). The difference-in-differences is far from statistically significant in a regression with session and order fixed effects ($p > 0.6$).

The foregoing analysis is based on within-subject variation. The results do not change qualitatively if we restrict attention to cross-subject variation by only including each Choice Architect's first decision from among these four rounds. The resulting estimates of the decline in the frequency with which Choice Architects offer the middle option are virtually the same regardless of whether we specify the most restrictive set or the least restrictive set as the default option: it falls from 89.0% to 81.7% in the first instance, and from 78.3% to 71.1% in the second ($p > 0.9$ for the difference-in-differences).

We conclude that there is no evidence indicating that Choice Architects are primarily motivated by a desire to exert control, even when they can potentially rationalize such action as beneficial.

B.2 Assessing anchoring and demand for consistency

Mechanisms such as anchoring or a demand for consistency potentially create an artificial relation between the Choice Architect's own choices in stage 2 of the laboratory component and the opportunity sets she has previously constructed for Choosers. We test for such mechanisms using the following strategy. We consider the variable d_i, defined as the difference between a Choice Architect's percentile rank of her own choices in stage 2 and the inverse of her patience rank in the online component.[2] If the confounding mechanisms are quantitatively important, then we should observe a positive relation between mandates and d_i: if mandates influence a Choice Architect's own choices in stage 2 (through anchoring or a demand for consistency), then subjects who impose stricter mandates should exhibit larger discrepancies between their patience rank in the online component and Stage 2 of the laboratory component. (This inference rests on the assumption that the confounding mechanisms do not apply to the relation between mandates and choices in the online component.)

Formally, we regress d_i on the mean mandate a Choice Architect imposes in the Main condition (without front-end delay). We obtain a coefficient estimate of 0.03 (s.e. 0.06). This relation is far from statistically significant ($p = 0.62$). We conclude that there are no quantitatively important confounding mechanisms that artificially relate Choice Architects' mandates to the choices they make for themselves in stage 2.

B.3 Attention test

Table A1 displays the attention test administered in Stage 2 of the online component. For each statement, the subject indicates whether it is true or false. The table also lists the percentage of correct responses next to each statement. The mean test score is 6.40 out of 8, with a standard deviation of 1.23. The lowest performance is on question 5, which was answered correctly by 58% of participants. This question concerns the Induced Chooser Preference condition. Question 2, on front-end delay, was also answered incorrectly relatively often, in spite of the fact that the information on front-end delay was presented prominently (though only in a single round of Stage 1). While some subjects might have forgotten this detail when

[2] Specifically, we first calculate the mean amount of money they choose to receive immediately in stage 2, averaging across the three-option menus used in the Main condition (without front-end delay). We obtain each Choice Architect's percentile rank according to that variable. We define the variable d_i as the difference between the percentile rank just defined and the inverse percentile rank of a Choice Architect's patience elicited in the online component.

taking this test, the fact that the introduction of a front-end delay leads to significant behavioral differences suggests they did pay attention. Indeed, if we only include subjects who correctly answered the test question on front-end delay, the coefficients of the regressions corresponding to columns 1 to 3 of Table 4 are given by -0.28 (s.e. 0.12), -0.20 (s.e. 0.07), and -0.11 (s.e. 0.13), respectively. If we only include subjects who did not answer that question correctly, the coefficients barely change; they are given by -0.35 (s.e. 0.15), -0.28 (s.e. 0.09), and -0.12 (s.e. 0.15).

Table A1: Attention test concerning decisions made for Choosers.

1. In some rounds I could remove options, but I could never add options for the future experiment participant. (False, 85%)
2. For all options which the future experiment participant could receive, the early payment will always be on the day of the experiment. (False, 60%)
3. For some options that the future experiment participant could have received, the late payment will occur up to 7 months after the day of the study. (False, 86%)
4. In some rounds, I had to make a single option available to the future experiment participant; I could not make multiple options available, even if I wanted to. (True, 77%)
5. Some rounds concerned gold tokens and silver tokens. These rounds only concerned money that would be paid soon after the experiment, not money that would be paid only months after the experiment. (True, 58%)
6. Other experiment participants could receive €0.40, €0.50, or €0.60 per silver token, each with the same probability. (False, 98%)
7. In some lines of the decision lists, the base payment of the future participant could be increased. In other rounds it could be decreased. (True, 93%)
8. If I made some options unavailable, this means that the other experiment participant cannot see that option, and therefore does not need to think about these options. (False, 83%)

Note: Fractions of correct answers are given in parentheses.

B.4 Projective Paternalism and Information treatments

Here, we address the question whether informational interventions can affect the extent of projective paternalism. Ex ante, the answer is not obvious. On the one hand, Section II.D shows that interventions respond substantially to Chooser-specific information. On the other hand, previous research on the false consensus effect documents its resistance to informational interventions (Krueger and Clement, 1994; Engelmann and Strobel, 2012).

We examine two different informational interventions. First, we test whether the information provided in the Chooser Information condition affects the extent of projective paternalism. To this end, we regress mandates on Choice Architects' patience percentiles using data from the Chooser Information Treatment. We allow the coefficient of Choice Architects' patience percentile to vary freely across the four Chooser statements. As in the main text, we focus on non-libertarian Choice Architects. We control for session, order, and menu fixed effects, and we cluster standard errors by subject. Column 1 of Table A2 displays the results. The estimated coefficients are all similar, and we cannot reject the hypothesis that they are identical, either in pairwise comparisons or in a joint test ($p > 0.8$ for the joint test, $p > 0.4$ for each pairwise test). In column 2, we use beliefs as dependent variable. This regression allows us to examine the effect of the Chooser statements on the false consensus effect. We find that neither of the Chooser statements significantly affect the magnitude of the false consensus effect ($p > 0.5$ for the joint test, $p > 0.15$ for each pairwise test).

There are two explanations for the foregoing finding. First, it is possible that projective paternalism is a robust phenomenon with respect to the provision of information. Second, the verbal statements about Chooser's inclinations and subjective experience require interpretation, which might be influenced by Choice Architects' own preferences in a way that leads to projective paternalism.

Table A2: Projective paternalism and information provision

VARIABLES	(1) Mandate	(2) Belief	(3) Mandate	(4) Belief
Patience %-ile				
× *Chooser*				
patient, happy	-0.915**	-1.313***		
	(0.358)	(0.165)		
impatient, happy	-0.798**	-0.947***		
	(0.353)	(0.235)		
patient, unhappy	-0.675**	-1.132***		
	(0.332)	(0.193)		
impatient, unhappy	-1.022***	-1.027***		
	(0.387)	(0.210)		
× *Choice dist. info.*			-0.290	-1.022***
			(0.374)	(0.253)
× *Not in Choice Dist. info.*			-1.048***	-1.280***
			(0.269)	(0.170)
Choice dist. info			-0.334	-0.183
			(0.327)	(0.200)
Mean of dep. var.	2.825	1.505	3.085	1.442
	(0.082)	(0.059)	(0.075)	(0.051)
p of joint test for differences in slopes	0.860	0.581	0.107	0.393
Observations	716	716	732	729
Number of subjects	179	179	244	243

Notes: Method: OLS. Unit of observation: subject-round pairs. Dependent variables: *Mandate* is the maximum amount the Choice Architect allows the Chooser receive immediately (as in Section II.C). *Belief* is the Choice Architect's beliefs about the mean amount a Chooser will receive early if allowed to choose without restrictions. Controls: *Patience %-ile* is the Choice Architect's percentile rank according to the average number of months she is willing to delay the receipt of the larger payment in the online tasks. Other controls include session, order, and menu fixed effects. Samples: All regressions limited to non-libertarian subjects who responded monotonically to all multiple-decision lists in the online component. Columns 1 and 2 are based on the Chooser Information condition using subjects who are not in the Choice Distribution Information treatment. Columns 3 and 4 are based on the Main condition (without front-end delay) adding subjects from the Choice Distribution Information treatment. Standard errors: clustered at the subject level. $^{*}p < 0.1,^{**}p < 0.05,^{***}p < 0.01$.

To evaluate the second interpretation, we study data from 100 additional Choice Architects who participated in the *Choice Distribution Information* condition. The experiment for these Choice Architects proceeded in the same fashion as for all other Choice Architects, with the exception that, in each round, these Choice Architects could click a button to view the distribution of previous selections Choosers made when all options were available. Upon clicking the button they observed, for each of the three options in the menu, a line of text of the following form: *Out of 100 previous Choosers, N choose X today and Y in six months.*[3]

[3] We calibrated the numbers N based on online pilot studies. Each Choice Architect in each session session faced a 25% chance of

In this analysis, we focus again on non-libertarian Choice Architects. The fraction of libertarians in the Choice Distribution Information treatment is 32%, compared to 38.3% libertarians amongst subjects not in that treatment ($p > 0.25$).

Choice Architects' decisions to reveal the information are instructive: 39.7% of non-libertarian subjects in the Choice Distribution information treatment never viewed the information provided, even though they could do so costlessly, at the click of a button. The remaining subjects viewed the information in 46% of all rounds, on average.

To study the effect of distributional information formally, we regress mandates on Choice Architects' patience percentile using data from the Main condition (without front-end delay). We allow the coefficient to vary freely depending on whether a Choice Architect is in the Choice Distribution Information treatment, and we include an indicator for that treatment. We control for session, order, and menu fixed effects, and we cluster standard errors by subject.

Column 3 of Table A2 displays the results. Projective paternalism appears to be attenuated in the Choice Distribution Information treatment. However, given the high frequency with which subjects choose not to view the information, we interpret this result with caution. Two further results suggest a cautious interpretation. First, the difference in estimated coefficients across the two treatments is not statistically significant ($p > 0.1$). Second, column 4 shows the estimated coefficients when we replace the dependent variable with Choice Architects' beliefs about unrestricted Choosers' choices. We find that the effect of the Choice Distribution Information treatment is much weaker and statistically insignificant ($p > 0.39$). Because the Choice Distribution information treatment does not alter beliefs, we consider it unlikely that the treatment has a genuine effect on mandates.

Overall, we conclude that ideals-projective paternalism is robust to the kind of information we have provided.

B.5 Choosers' choices

Table A3 lists the choices by Choosers. Each Chooser ranked the three options associated with single round of the experiment. The modal Chooser ranks the most patient option first and the least patient option last, though each option is ranked first by some Chooser. Choosers participate merely to incentivize the Choice Architects; we do not draw inferences from their behavior. We recorded the minimum data required to determine each Chooser's payment.

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being assigned to the Choice Distribution Information condition.

Table A3: Choosers' choices.

	Preference rank		
	First	Second	Third
Money over time ($n = 103$)			
Most patient choice	79.61%	11.65%	8.74%
Middle Choice	14.56%	82.52%	2.91%
Least Patient Choice	5.83%	5.83%	88.35%
Induced preferences ($n = 21$)			
Most patient choice	57.14%	23.81%	19.05%
Middle Choice	23.81%	71.43%	4.76%
Least Patient Choice	19.05%	4.76%	76.19%

Notes: The table shows, for each option, the fraction of Choosers who placed that option at the indicated preference rank position. *Money over time* concerns choices corresponding to the Main, Exogenous Restriction, and Chooser Information conditions. *Induced preference* concerns choices corresponding to the Induced Chooser Preferences condition.

B.6 Price sensitivity

Here, we document the sensitivity of subjects' interventions to the monetary cost of impatience. We begin by regressing an a binary variable indicating whether an option is withheld on the amount of Euros the Choice Architect forfeits by choosing that option rather than the most patient option (which always pays a total amount of €15), and on indicators for whether the option is the least patient or middle option in the menu. For this purpose, the unit of observation is a Choice Architects' decision concerning a given option in a given round. We include observations from the Main treatment without front-end delay, we control for session and order fixed effects, and we cluster standard errors on the subject level. Column 1 of Table A4 displays the result. The coefficient estimates indicate that the magnitude of the monetary cost rather than the relative rank of an option in the choice set is the primary driver of decisions to withhold options. As reported in the main text, a €1 reduction in total payoff increases the probability that an option is withheld by 2.9 percentage points ($p < 0.01$). To reinforce this point, Columns 2 performs the regression including only the middle option of each choice set, which leads to a coefficient of 2.1 percentage points. Column 3 includes only the least patient option of each choice set and yields a coefficient of 10.5 percentage points.

Table A4: Price sensitivity.

VARIABLES Rank of included option	(1) Option withheld All	(2) Option withheld Middle	(3) Option withheld Least patient
Cost of impatience	0.029***	0.021***	0.105***
	(0.006)	(0.007)	(0.037)
Option rank			
Middle	-0.008		
	(0.021)		
Least patient	0.019		
	(0.059)		
Observations	2,727	909	909
#subj	303	303	303

Notes: Method: OLS. Unit of observation: subject-round-option triplet. Controls: *Cost of impatience* is the amount of Euros a Chooser forfeits by selecting a given option, compared to the most patient option. *Option rank* refers to the placement of an option within a menu. Other controls include session and order fixed effects. Sample: all rounds from the Main condition without front-end delay.

B.7 Beliefs about Chooser welfare

Table A5 displays the effects of - delay and of Chooser-specific information on judgments about the welfare effects of withholding options, as referenced in Sections II.C and II.D of the main text, respectively. Table A6 presents regression results concerning beliefs about the welfare effects of removing options using ordered probit specifications. All coefficient estimates of interest retain their signs as well as their statistical significance.

Table A5: Subjects' beliefs about the welfare effects of withholding options in the case of front-end delay and in the Chooser Information condition

	(1)	(2)	(3)	(4)
Dependent variable	Belief smaller opportunity set better for Chooser		Negative of Compensating Variation	
Smaller set	Chosen	Chosen	Chosen	Chosen
Menus	1 - 2	5	1 - 2	5
Menu with FED included	Yes	-	Yes	-
	Summary statistics for dependent variables			
Distribution of beliefs				
Evaluation opportunity set is				
better	0.297	0.356		
same	0.611	0.540		
worse	0.092	0.103		
Mean negative CV			0.021	-0.224
Distribution of beliefs if options withheld				
Evaluation opportunity set is				
better	0.674	0.693		
same	0.090	0.099		
worse	0.236	0.207		
Mean negative CV			0.095	0.078
	Regression results			
Front-end delay	0.077**		0.045*	
	(0.037)		(0.025)	
Chooser information				
Patient, happy		0.077*		0.002
		(0.041)		(0.028)
Patient, unhappy		0.015		-0.029
		(0.040)		(0.025)
Impatient, unhappy		0.116***		0.010
		(0.040)		(0.025)
Observations	606	1,212	583	1,156
Number of subjects	303	303	294	298

Notes: The top half of the table provides summary statistics for the dependent variables, and the bottom half presents regression results. Unit of observation: subject-round pair. Method: Columns 1 and 2, OLS; columns 3 and 4, interval regression. Dependent variables: The dependent variable for columns 1 and 2 measures whether the Choice Architect considers the smaller opportunity set better, equally good, or worse for the Chooser than the unrestricted set, coded as 1, 0, and -1, respectively. For columns 3 and 4, it is the negative of the Choice Architect's beliefs about the compensating variation (CV) of reducing the opportunity set. The smaller opportunity set is the one the Choice Architect has constructed. Controls: All regressions control for altruism and spite, and include session, order, and menu fixed effects. Samples: Each of columns 1 and 2, and each of columns 3 and 4, employs data from a different condition, as indicated. In the bottom panel, each column corresponds to a separate regression. Columns 3 and 4 exclude subjects with multiple switches in the CV elicitation. Standard errors: clustered by subject. $^{*}p < 0.1,^{**}p < 0.05,^{***}p < 0.01$.

Table A6: Ordered probit regressions corresponding to Tables 3 and A5

	(1)	(2)	(3)	(4)
Smaller set	Chosen	Exogenous	Chosen	Chosen
# options withheld				
1	0.634***			
	(0.144)			
2	1.035***			
	(0.247)			
Mean # options withheld in Main condition		1.081***		
		(0.139)		
Opportunity set contains most patient option only		-0.308**		
		(0.138)		
Front-end delay			0.155**	
			(0.072)	
Chooser information				
Patient, happy				0.142*
				(0.076)
Patient, unhappy				0.028
				(0.073)
Impatient, unhappy				0.217***
				(0.074)
Category thresholds oProbit				
Worse vs. same	-0.535*	0.453	-1.113***	-0.986***
	(0.307)	(0.371)	(0.357)	(0.283)
Same vs. better	1.385***	0.801**	0.815**	0.691**
	(0.310)	(0.369)	(0.351)	(0.279)
Observations	909	606	606	1,212
Number of subjects	303	303	303	303

Notes: The dependent measures whether the Choice Architect considers the smaller opportunity set better, equally good, or worse for the Chooser than the unrestricted set. We assign higher index numbers to more positive beliefs. Unit of observation: subject-round pair. Method: Ordered probit. Otherwise, specifications are the same as in the corresponding OLS regressions in Tables 3 and A5 $^{*}p < 0.1, ^{**}p < 0.05, ^{***}p < 0.01$.

B.8 Projective paternalism, beliefs, and measurement error

Here, we examine the possible effects of measurement error in our analysis on the role of beliefs for projective paternalism—specifically Column 2 in Table 7. We do so by instrumenting for the Choice Architect's patience (measured in the online component) using the choices she makes for herself in stage 2 of the laboratory component using all rounds corresponding to the Main condition. We also instrument for the Choice Architect's beliefs about choices corresponding to the Main condition by the same subjects' beliefs about choices corresponding to the Chooser Information and Exogenous Restriction conditions. Aside from the 2SLS estimation method, our specification is the same as in column 2 of Table 7.

Table A7 shows the results. For comparison, column 1 replicates the OLS regression featured in the main text. The specification in Column 2 instruments both predictor variables. We find that coefficient on beliefs more than doubles, while the coefficient on the Choice Architects' patience flips sign. The latter coefficient is measured with such a large standard error that its confidence interval ranges from -1.28 to 2.26. This confidence interval includes both the coefficient estimate from a regression without beliefs (column 1 of Table 7), and the coefficient estimate of the OLS regression in column 1. For completeness, Column 3 presents a version of this regression in which we only instrument for beliefs, but not for patience, while column 4 only instruments for patience but not for beliefs. We find a substantial but noisily estimated effect of own patience in the latter specification.

Overall, we conclude that beliefs about others' choices play an important role in determining mandates. The estimates of the effect of patience conditional on beliefs, in contrast, are too noisy for us to reach definitive conclusions.

Table A7: Role of beliefs in projective paternalism: instrumental variables regressions

VARIABLES Method	(1) Mandate OLS	(2) Mandate IV	(3) Mandate IV	(4) Mandate IV
Patience %-ile	-0.540*	0.491	0.008	-1.149
	(0.318)	(0.903)	(0.384)	(0.832)
Belief %-ile	-1.136***	-2.657***	-2.374***	-0.781
	(0.365)	(0.758)	(0.506)	(0.616)
Instrumented				
Patience %-ile	No	Yes	No	Yes
Belief %-ile	No	Yes	Yes	No
Observations	537	537	537	537
Number of subjects	179	179	179	179

Notes: Unit of observation: subject-round pairs. Dependent variable: *Mandate* is the maximum amount the Choice Architect allows the Chooser receive immediately (as in Section II.C). Controls: *Patience %-ile* is the Choice Architect's percentile rank according to the average number of months she is willing to delay the receipt of the larger payment in the online tasks. *Beliefs %-ile* is the Choice Architects' percentile rank in terms of her beliefs about the Chooser's patience, as measured by the inverse of the mean amount the Chooser will receive immediately if allowed to choose without restrictions. Additional controls include session, order, and menu fixed effects. Samples: Regressions limited to non-libertarian subjects who responded monotonically to all multiple-decision lists in the online component. Rounds from the Main condition without front-end delay. Standard errors: clustered at the subject level. $^{*}p < 0.1, ^{**}p < 0.05, ^{***}p < 0.01$.

B.9 Choice Architects' own choices

In Stage 2, Choice Architects choose one of the options from each menu in Panel A of Table 1. Table A8 lists the distribution of these choices for menus corresponding to the Main condition.

Table A8: Choices that Choice Architects make for themselves

Menus	Percent chosen			Obs.	Subjects
	Most patient	Middle	Least patient		
1, 2, 3, 4	78.3	13.0	8.4	1612	403
	(1.7)	(1.2)	(1.2)		
1	68.7	18.5	12.3	195	195
	(3.3)	(2.8)	(2.4)		
2	77.9	9.6	12.5	208	208
	(2.9)	(2.0)	(2.3)		
3	70.7	23.1	6.0	403	403
	(2.3)	(2.1)	(1.2)		
4	87.6	4.7	7.4	403	403
	(1.6)	(1.1)	(1.3)		
1, 2	81.4	10.4	7.9	403	403
Front-end delay	(1.9)	(1.5)	(1.3)		
1, 2	73.4	13.9	12.4	403	403
No front-end delay	(2.2)	(1.7)	(1.6)		

Notes: Standard errors in parentheses.

B.10 Judgments about welfare effects of actual paternalistic policies

Here, we provide material supplementary to our analysis in Section IV of the main text concerning judgments about actual paternalistic policies. Panel A of Table A9 shows the distribution of welfare judgments by policy. Panel B.1 displays the coefficients of ordered probit versions of the regressions concerning the relation between welfare judgments about actual policies and welfare judgments in the experimental decisions (see Panel B.2 in Table 8). As in the main text, we find highly statistically significant relations for all tax policies, but not for restrictions on short-term, high-interest lending. Panel B.2 displays corresponding results when we use beliefs about the negative compensating variation for removing options in the experimental tasks. Here, we find statistically significant coefficient estimates for both tobacco taxes and for restrictions on short-term, high-interest lending, but not for the remaining policies. For all policies, we find the expected positive sign. The lack of statistical significance for two of the tax policies is possibly due to the complex elicitation procedure through which subjects reveal beliefs about compensating variations.

B.11 Robustness check concerning judgments of actual paternalistic policies

The regressions in Table 8 include an array of control variables. Here, we present estimates of the same regressions in which we only retain session and order fixed effects as control variables. As Panel A.1 of Table A10 shows, in the case without controls, the relation between mandates in the experimental decisions and judgments of real-world paternalistic policies is slightly weaker for each policy. Even though the sign of the estimated coefficients remains unchanged and the magnitude remains similar in each case, this attenuation causes a loss in statistical significance for three of the four policies. Importantly, the relation to the average of

Table A9: Experimental decisions and support for real-world paternalistic policies.

Policy	(1) Increase alcohol tax	(2) Increase tobacco tax	(3) Introduce sugary drinks tax	(4) Tighten restrictions on short-term lending
	A. Summary statistics for dependent variables			
Dist. of beliefs about welfare effects				
significantly worse off	0.112	0.050	0.050	0.072
a little worse off	0.251	0.099	0.166	0.243
neither better nor worse off	0.228	0.176	0.310	0.357
a little better off	0.270	0.295	0.330	0.256
significantly better off	0.139	0.380	0.144	0.072
	B. Relation between beliefs about welfare effects in the laboratory and concerning actual policies			
	B.1 Predictor variable: non-incentivized statement			
Average belief exog. smaller choice set better for Chooser	0.205***	0.230***	0.217***	0.077
	(0.078)	(0.083)	(0.076)	(0.076)
Category thresholds oProbit				
1	-1.974***	-2.511***	-3.199***	-0.954
	(0.685)	(0.697)	(0.714)	(0.689)
2	-1.031	-1.851***	-2.271***	0.099
	(0.677)	(0.687)	(0.711)	(0.685)
3	-0.390	-1.214*	-1.361*	1.063
	(0.674)	(0.679)	(0.708)	(0.687)
4	0.537	-0.390	-0.303	2.103***
	(0.675)	(0.678)	(0.708)	(0.695)
Observations	403	403	403	403
	B.2 Predictor variable: belief about compensating variation			
Mean negative CV	0.201	0.379**	0.189	0.214*
	(0.138)	(0.152)	(0.141)	(0.130)
Category thresholds oProbit				
1	-1.791**	-2.491***	-3.178***	-0.889
	(0.710)	(0.710)	(0.741)	(0.716)
2	-0.861	-1.824***	-2.276***	0.189
	(0.703)	(0.701)	(0.736)	(0.713)
3	-0.214	-1.191*	-1.383*	1.129
	(0.701)	(0.692)	(0.732)	(0.716)
4	0.698	-0.375	-0.319	2.181***
	(0.702)	(0.691)	(0.733)	(0.724)
Observations	391	391	391	391

Notes. Method: ordered probit. Unit of observation: subject. Dependent variables: *Beliefs about welfare effects* is the belief about the welfare effect of various policies. Controls: *Average belief exog. smaller choice set better for Chooser* (as in Section II.B) encodes whether the Choice Architect considers the smaller opportunity set better, equally good, or worse for the Chooser than the unrestricted set, coded as 1, 0, and -1, respectively, averaged across the four rounds of the Exogenous Restriction Condition. Controls: *Average belief exog. smaller choice set better for Chooser* measures whether the Choice Architect considers the smaller opportunity set better, equally good, or worse for the Chooser than the unrestricted set, coded as 1, 0, and -1, respectively, averaged across rounds in the Exogenous Restriction condition. *Mean negative CV* is the negative of the Choice Architect's beliefs about the compensating variation (CV) of reducing the opportunity set, averaged across rounds in the Exogenous Restriction condition. All regressions control for gender, age, self-reported political attitudes, log monthly expenses, high school GPA, university faculty at which the subject's major field of study is offered, weekly alcohol consumption, log days of binge drinking per year (defined as the consumption of at least 4 units of alcohol for females, 5 for males, within a period of two hours (National Institutes on Alcohol Abuse and Alcoholism, 2018)), smoking status, number of cigarettes smoked per day, body mass index, credit card debt, for having taken a short term loan, as well as for session and order fixed effects. For variables measured with interval precision, we use midpoints for analysis. For control variables that subjects chose not to disclose, the regressions impute population means, and include indicators for whether a variable's value was missing. Samples: includes 303 subjects who participated in the main experiment, plus 100 subjects who participated in the Choice Distribution Information Condition (see Appendix Section B.4). Panel B.2 excludes subjects with multiple switches in the elicitation of beliefs about compensating variations. Standard errors: clustered by subject. $^{*}p < 0.1, ^{**}p < 0.05, ^{***}p < 0.01$.

judgments across the four policies remains statistically significant. In Panel A.2 we find a slight attenuation of the estimated coefficients concerning welfare beliefs. Here, the statistical significance of the coefficient estimates remains unchanged for each policy. Panel B shows the effect of excluding subject-specific control variables on the estimates of projective paternalism concerning real-world policies. Here, we find that the magnitude and levels of statistical significance remain highly similar to the case that includes the controls.

Table A10: Replication of estimates in Table 8 without subject-specific control variables.

Policy	(1) All	(2) Increase alcohol tax	(3) Increase tobacco tax	(4) Introduce sugary drinks tax	(5) Tighten restrictions on short-term lending
	A. Relation between laboratory choice and policy attitudes				
	A.1 Dependent variable: support for policy proposal				
Average mandate imposed on Chooser	-0.091**	-0.102	-0.101**	-0.083	-0.078
(max. € paid immediately)	(0.040)	(0.069)	(0.051)	(0.066)	(0.052)
Observations	403	403	403	403	403
	A.2 Dependent variable: beliefs about welfare effect of policy proposal				
Average belief exog. smaller choice	0.176***	0.200**	0.222***	0.198***	0.085
set better for Chooser	(0.052)	(0.084)	(0.080)	(0.072)	(0.075)
Observations	403	403	403	403	403
	B. Projective paternalism with actual policies				
Alcohol consumption					
Alcohol units / week		-0.059*			
		(0.033)			
log(days binge drinking / year)		-0.172***			
		(0.053)			
Tobacco consumption					
Smoker yes / no			-0.943***		
			(0.274)		
Cigarettes / day			-0.034		
			(0.039)		
Body Mass Index				-0.064**	
				(0.026)	
Debt					
Credit card debt (in €1,000)					-0.536***
					(0.088)
Other short-term debt yes / no					0.071
					(0.361)
Controls	-	Yes	Yes	Yes	Yes
Observations	-	403	403	398	351

Notes: Method: OLS. Unit of observation: subject. Dependent variables: *Support for policy proposal* is the support expressed for various policies, coded -2 (strong opposition) to 2 (strong support), averaged over policies for "All." A "neutral" response was possible only for the question about short-term lending. Because we asked subjects about *loosening* restrictions on short-term lending, we reverse-coded these responses for easier comparability (so that higher values correspond to greater support for tightening restrictions). *Beliefs about welfare effects* is the belief about the welfare effect of various policies, coded -2 (significantly worse off) to 2 (significantly better off), averaged over policies for "All." Controls: *Average mandate imposed on Chooser* is the maximum amount the Choice Architect allows the Chooser receive immediately (as in Section II.C), averaged over rounds involving menus 3 and 4 in the Main condition. *Average belief exog. smaller choice set better for Chooser* (as in Section II.B) encodes whether the Choice Architect considers the smaller opportunity set better, equally good, or worse for the Chooser than the unrestricted set, coded as 1, 0, and -1, respectively, averaged across the four rounds of the Exogenous Restriction Condition. All regressions control for session and order fixed effects. For variables measured with interval precision, we use midpoints for analysis. Samples: includes 303 subjects who participated in the main experiment, plus 100 subjects who participated in the Choice Distribution Information Condition (see Appendix Section B.4). Regressions in Panel C exclude subjects who chose not to disclose the personal characteristic of interest. Standard errors: clustered by subject. $^{*}p < 0.1,^{**}p < 0.05,^{***}p < 0.01$.

B.12 Beliefs about reasons for impatient choice

Here, we examine subjects' responses to non-incentivized survey questions regarding the reasons for choosing impatiently. We list six possible reasons a Chooser may select €4 today and €0 in half a year over €0 today and €10 in half a year. Choice Architects indicate agreement or disagreement on a scale of -2 to 2. Table A11 lists the reasons provided along with the corresponding mean responses. Choice Architects believe that plausible explanations include impatient predispositions and liquidity constraints, with significantly positive mean scores of 0.640 and 0.782, respectively. On average, Choice Architects consider inattention and random choice to be relatively unlikely explanations, and they judge the inability to implement one's objectives as downright implausible. Neither do Choice Architects believe that impatient choices are due to experiment-specific factors such as trust in the experimenter or technical issues with the monetary transaction.

Table A11: Non-incentivized assessment of the plausibility of particular reasons for impatience.

Reason	Mean plausibility rating
Objectives	
They are generally rather impatient.	0.640***
	(0.056)
They have an urgent need for money to pay for things like food or rent.	0.782***
	(0.069)
Implementation	
They did not pay attention and chose randomly.	-0.436***
	(0.059)
They meant to choose €0 today, €10 in half a year, but chose something else because some irrelevant event prevented them from choosing what they actually meant to choose (e.g. their hand trembled, or they confused the order of the radio-buttons).	-1.360***
	(0.053)
Experiment-related factors	
They are not sure whether the experimenter will really pay them half a year from now.	-0.838***
	(0.064)
They are not sure whether they will be able to receive the money in half a year from now, for instance because they no longer have a PayPal account.	-0.667***
	(0.062)

Notes Subjects were asked to suppose that a future experiment participant chooses €4 today and €0 in half a year over €0 today and €10 in half a year, and were asked to indicate how likely they think that each of the reasons listed motivated the participant's choice. Responses are given on the scale *extremely unlikely, unlikely, possible, likely, extremely likely*, encoded as -2, -1, 0, 1, 2, respectively. Standard errors in parentheses.

B.13 Performance on memory check

At the end of the experiment, Choice Architects reproduced their own choices from two of the twelve multiple decision lists about intertemporal choice they completed in the online component (in addition, they reproduced their choices from two lists of lotteries). The first of these lists used early and late payment amounts of €2 and €10, respectively, while the second list used €5 and €10. A total of 46.9% of subjects correctly reproduced their responses for both decision lists. This number is potentially inflated due to the fact that 60.1% of all subjects chose the delayed option on each line of each of the two lists, which simplifies memorization and reconstruction.

C Vignette experiment

C.1 Design

To evaluate the possibility that differential beliefs about the effectiveness of various interventions contribute to our results in Section IV of the main text, we conduct a vignette study on Amazon Mechanical Turk. Its structure is similar to the part of our main experiment concerning policy judgments. Appendix D.5 displays the full text of the vignette study.

To control beliefs about the effectiveness of the interventions, we describe a specific individual, ask subjects to assume that the policy will affect that individual in a precisely specified fashion, and ask whether they would support the policy if it affected everyone the same way. In addition, we elicit beliefs about the effectiveness of the policies on potentially heterogenous members of the general population, permitting a test of whether beliefs about effectiveness are related to respondent characteristics in a way that would artificially generate ideals-projective paternalism.

We use four policies, displayed to subjects in random order: Alcohol taxes, sugary drinks taxes, retirement savings mandates, and restrictions on short-term, high-interest lending.[4] For each policy we describe an individual living in an Anglo-Saxon country other than the US, so respondents' attitude to paying taxes themselves should not influence their responses. Moreover, we describe all taxes as budget-neutral. Regarding sugary drinks taxes, for instance, we employ the following language: *"Anne, [is] a resident of Melbourne, Australia. She is 35 years old, 5 feet and 4 inches tall, and she weighs 190 pounds. ... For this question, assume that if the tax is introduced, Anne will reduce her consumption of sugary drinks so that her weight permanently drops to 145 pounds (from the previous 190 pounds). Given Annes height, this is a normal weight, according to the World Health Organization. If all residents of Melbourne were exactly like Anne, would you support or oppose the introduction of the tax?"*

After subjects provide their judgments, we also elicit respondents' own characteristics that allow for tests of mistakes-projective or ideals-projective paternalism for each of the policies. Specifically, we elicit weekly alcohol consumption, yearly binge drinking frequency, weight and height (to calculate BMI), a subjective assessment of the respondents' body-shape (underweight, healthy, overweight, etc.), the amount of the respondent's credit card debt, whether the subject has ever taken a payday loan, as well as the current stock of retirement savings and the respondent's current retirement savings rate.[5]

C.2 Analysis

We conducted the survey on the morning of February 1, 2019, with a total of 250 mTurk workers. Subjects received \$3 plus \$0.25 for each of eight attention check questions they answered correctly (two per policy). We retain the 161 subjects who correctly answered all attention check questions.

We define our independent variable by combining a subjects' responses to the two questions relating to any given policy and extracting the first principal component. We encode the resulting variable such

[4] We do not elicit attitudes to tobacco taxes because we conduct our survey with US subjects. The fraction of smokers in the US is substantially smaller than amongst our German laboratory subjects.

[5] We elicit additional characteristics, see Appendix D.5.

that negative coefficient estimates correspond to ideals-projective paternalism whereas positive coefficient estimates correspond to mistakes-projective paternalism.

For each policy, we perform an ordered probit regression of the support the respondent expresses for the policy under the assumption that all affected individuals are exactly the same as the person we described in the vignette.

Panel A of Table A12 displays the results. We find significant ideals-projective paternalism for alcohol taxes and for the retirement savings mandate. For sugary drinks taxes and for limits on short-term, high-interest lending, our coefficient estimates are not significantly different from zero. In no case are our estimates consistent with mistakes-projective paternalism.

Panel B uses as the dependent variable the support respondents express for the policy overall, when we ask them to consider that people are actually heterogeneous and the policy may create externalities. We find a significant negative relation between support and own characteristics for alcohol taxes and for the retirement savings mandate, and a marginally significant negative relation for regulation of payday lending. We continue to find a null effect for sugary drinks taxes.

The similarity of the results in Panels A and B, including for sugary drinks taxes, suggests that the relationship between policy support and the respondents' own characteristics is not contaminated by correlations between own characteristics and views of the policies' efficacy. We demonstrate this point more directly in Panel C, which uses beliefs about the effectiveness of the policies as a dependent variable. There is no significant association between respondents' own characteristics and their beliefs about the effectiveness of any of the three policies for which we elicited these beliefs.

Overall we conclude that our evidence of ideals-projective paternalism regarding real-world paternalistic policies is not contaminated by beliefs about efficacy systematically varying with respondent characteristics. Moreover, while our results show that ideals-projective paternalism is present for some but not all paternalistic policies among our US subjects, we find no indication of mistakes-projective paternalism.

Table A12: Results of the vignette study.

Policy	(1) Alcohol	(2) Sugar	(3) Retirement	(4) Loans
A. Policy support regarding person described in vignette				
Own characteristics	-0.226**	0.031	-0.282***	0.029
	(0.095)	(0.081)	(0.101)	(0.070)
oProbit thresholds				
1	-0.464	-1.922***	-1.654**	-0.822
	(0.691)	(0.736)	(0.716)	(0.666)
2	0.000	-1.458**	-1.123	0.402
	(0.694)	(0.722)	(0.708)	(0.653)
3	0.673	-0.933	0.097	1.338**
	(0.697)	(0.716)	(0.695)	(0.658)
Observations	161	161	146	158
B. Overall policy support				
Own characteristics	-0.269***	0.072	-0.273***	-0.148*
	(0.087)	(0.082)	(0.104)	(0.084)
oProbit thresholds				
1	-0.341	-1.982***	-2.189***	-1.131*
	(0.702)	(0.719)	(0.759)	(0.656)
2	0.164	-1.534**	-1.511**	-0.041
	(0.709)	(0.711)	(0.740)	(0.654)
3	0.913	-0.882	-0.500	0.926
	(0.712)	(0.701)	(0.721)	(0.659)
Observations	161	161	146	158
C. Effectiveness beliefs				
Own characteristics	-0.029	-0.055	-	-0.023
	(0.068)	(0.063)		(0.089)
Observations	161	161	-	158

Notes: Each column in each panel is a separate ordered probit regression that controls for the stage at which each policy was displayed, whether arguments in favor of or opposed to the interventions were mentioned first, the logarithm of the duration the subjects took to complete the sample, age, gender, and a dummy for each level of education. We did not elicit beliefs about the effectiveness of the retirement savings mandate. Standard errors clustered by subjects.

D Experiment design and implementation details

D.1 Experiment design: comprehensive description

The experiment consists of an online component and a laboratory component. Each encompasses multiple stages. Table A13 provides an overview, with stages listed in the order they were presented to subjects. Appendix sections D.3 and D.4 present verbatim translations of all instructions and questions, which we presented in German.

Table A13: Stages of the experiment.

Online component
1. Decision lists on intertemporal and risky choice
2. Non-incentivized questions
Laboratory component
1. Constructing Chooser's opportunity sets
2. *Additional decisions*
2.1 Surrogate choices
2.2 Attention test
2.3 Belief elicitation
2.4 Choice for oneself
2.5 Altruism / spite elicitation
3. *Real-world policies survey*
3.1 Policy judgments
3.2 Questions about reasons for impatient choice
3.3 Elicitation of characteristics related to real-world policies
4. Memory test

Online component The main part of the online component presents the six decision lists to elicit Choice Architects' own intertemporal choices, as described in Section I.A of the main text. These are intermingled with six decision lists concerning risk taking. In these lists, subjects decide between winning amount y with probability p and 0 otherwise, or a sure amount $z \in \{1, 2, 3, 4, 5, 6\}$. We use $(y, p) \in \{(10, 0.5), (6, 0.7), (8, 0.5), (5, 0.8), (20, 0.2), (13, 0.3)\}$. The online component concludes with a battery of non-incentivized questions concerning age, gender, number of credit cards, and monthly expenses. Next, subjects select one of the four self-descriptive statements in panel B of Table 5, and make a selection from four similar statements concerning risk preferences. Subjects then provide answers to the non-numerical questions about risk and time preferences described in Falk et al. (2016). Finally, subjects provide information about the faculty at which their main course of study is offered, about the Bundesland in which they obtained their Abitur,[6] about their GPA in the Abitur exam, about their Abitur grade in mathematics, about their Abitur grade in German language, as well as about whether they had enrolled in honors classes in mathematics and / or German.

Laboratory component After reading general instructions about the experiment and passing a comprehension check, subjects make decisions in the following stages.

[6] The *Abitur* is the German university entrance qualification.

1. Constructing opportunity sets. Subjects read instructions about this stage of the experiment and complete two comprehension checks. Subsequently, in each of eleven rounds, Choice Architects first construct an opportunity set for the Chooser, and then reveal their beliefs about the extent to which receiving a specific subset rather than the full menu affects the Chooser's well-being, as described in Section I.A of the main text.

2.1 Surrogate choices. In each of eleven rounds, Choice Architects make surrogate choices, and subsequently reveal their beliefs about the extent to which receiving the chosen option rather than the full menu affects the Chooser's well-being. The rounds correspond to the six menus used for intertemporal decisions, and the two menus used for the Induced Chooser Preferences condition. Subjects make surrogate choices concerning menu 5 four times, once for each of the Chooser self-descriptions in Table 5. Subjects do not see separate instructions for this part. Instead, in each round, subjects read "in this round you can make exactly one option available to the future experiment participant." The options are shown in a list from which the subject selects one. This part also removes the possibility of providing advise to the Chooser by the click of a button.

2.2 Attention test. Subjects answer the eight attention test questions reproduced and analyzed in Appendix Section B.3. The instructions at the beginning of the online component inform subjects that their performance could completely determine their payment from the study. The instructions do not reveal any information about the test's content or focus, except that it will be about "what happened during this part."

2.3 Belief elicitation. Subjects read instructions concerning this stage and complete a comprehension check. In each of 11 rounds, they then reveal their beliefs about the distribution of the choices ten previous experiment participants have made when allowed to choose from the menus without restrictions, as described in Section I.A of the main text. These are the same 11 rounds as in stage 2.1.

2.4 Choice for oneself. Subjects proceed through 8 rounds in which they select an option for themselves from each of the six menus in Table 1. Either menu 1 or menu 2 is subject to front-end delay (the same menu for which the choice set construction decision was subject to front-end delay). Subjects also make choices for themselves for each of the two rounds of the Induced Chooser Preferences condition. For these rounds, each subject is assigned one of the induced exchange rates $\hat{\delta}_i \in \{0, 0.5, 1\}$, which applies to both rounds.

2.5 Altruism / spite. Subjects decide whether to costlessly increase another Chooser's payment by €1, leave it unchanged, or decrease it by €1.

3.1 Policy judgments. Subjects rate four policy proposals concerning taxes on sugary drinks, alcohol, and tobacco, as well as about restrictions on short-term, high-interest loans. The tax policies concern Switzerland. We ask subjects to assume that the tax policies would be budget neutral. For each policy, we elicit the extent to which the subject supports or opposes its implementation in Switzerland. We also elicit beliefs about how the policy would change the welfare of the average citizen. The question about the welfare effects of alcohol taxes concerns adolescents and young adults rather than the average citizen, but is otherwise identical.

3.2 Questions about reasons for impatient choice and about reasons for restricting choice. Subjects first answer four questions about whether Choosers may have difficulties making (good) choices.[7] Second, subjects

[7] The questions are the following. Suppose an experiment participant can choose between the following options: Option A: Get €0 today, €10 in half a year, Option B: Get €4 today, €0 in half a year. 1. How easy do you think it is for the future experiment participant to know which of these two options is best for him? 2. How many out of 10 participants will choose the option that is

provide judgments about the plausibility of six potential reasons for impatient choice listed and analyzed in Appendix Section B.12. Third, in each of five rounds, subjects are shown their own decisions from the choice set construction stage and are asked an open-ended question as to why they constructed the choice set the way they did. Four of these rounds correspond to the four Chooser types of Table 5 (subjects are shown the corresponding Chooser statement). The remaining round corresponds to a decision Choice Architects have made for a Chooser who would be selected at random.

3.3 Elicitation of characteristics related to real-world policies. Subjects provide information on their body mass index, their average alcohol consumption, their frequency of binge drinking, their smoking status and cigarette consumption, as well as whether they have ever taken out a short-term, high-interest loan, and if so, how quickly they repaid it. Subjects also rate their own political orientation on a left-right spectrum.

4. Memory test. Subjects are asked to reproduce their answers for four of the multiple-decision lists from the online component. Subjects learn of this test immediately before it begins. They receive €2 for exact replication. See Appendix Section B.13 for questions and performance.

Order Half of Choice Architects, selected at random, proceed through the laboratory component in the order listed above, while the other half complete Stage 2.3 first.[8] Within each of these stages, the order in which subjects proceed through the conditions is individually randomized. Questions regarding real world policies, in contrast, are presented in the following order for all subjects: 1. sugary drinks taxes, 2. alcohol taxes, 3. tobacco taxes, 4. restrictions on short-term, high-interest lending.

Implementation All instructions are displayed on-screen. We intersperse them with four comprehension checks which subjects must pass in order to continue with the study, concerning (i) the incentive scheme and Induced Chooser Preferences condition, (ii) the manner in which Choosers rank and obtain outcomes, (iii) choices concerning Choosers in Stages 1 and 2.1, and (iv) the belief elicitation in Stage 2.3. Each comprehension check consists of at least five statements with at least two answer options each. The subject must select the correct response to each statement. In case of a mistake, the subject only learns that one or more of her responses were incorrect, but not which ones. Accordingly, it is exceedingly unlikely that subjects pass the comprehension checks by luck or by trial and error. Subjects who do not pass are referred back to the instructions (all subjects eventually passed).

All incentive payments are processed through PayPal; all transaction fees were paid by the researchers. The invitation email informs subjects of this fact and asks them to open a PayPal account if they do not already possess one.[9] Subjects received individualized links to ensure they would continue with the correct survey (implemented in Qualtrics) even though they completed the online component on a different machine than in the laboratory component.

Prior to fielding our laboratory experiment, we conducted pilot experiments on Amazon Mechanical Turk. Data from each pilot are consistent with our conclusions concerning projective paternalism.

really best for them? 3. How many out of 10 experiment participants will choose an option other than the one they actually wanted to choose? Suppose an experiment participant chooses "Option A: €0 today, €10 in 6 months from today". Given the experiment participant chooses this option, is this a good or bad choice for this experiment participant? 4. Suppose the experiment participant chooses "€4 today, €0 in 6 months from today". Given the experiment participant chooses this option, is this a good or bad choice for this experiment participant?

[8] Only Choice Architects who reveal beliefs before constructing opportunity sets are in the Choice Distribution Information treatment, because the value of belief elicitation after information provision is debatable.

[9] PayPal accounts are free.

D.2 Sessions

We ran the experiment in 16 sessions at the Cologne Economics Research Lab. All materials were presented in German. The same head research assistant was present in every session. In each session, two additional research assistants were present to help. After the main sessions were concluded, we conducted five sessions to implement the Choice Architects' decisions that affected a Chooser. Each Chooser was presented with a single menu. Payments were determined according to Choosers' rankings of the options and the decisions the matched Choice Architects had made for the corresponding menu. While we do not use any data from the Chooser sessions in our analysis, we report the distribution of Choosers' choices in Appendix Section B.5. Table A14 lists the details of each session. Dates and times reflect availability of the lab and the research assistant.

Table A14: Session details.

Choice Architect sessions		
Session	Date	Time
1	6/14/18	4 pm
2	6/15/18	4 pm
3	6/19/18	10 am
4	6/19/18	1 pm
5	6/19/18	3.30 pm
6	6/20/18	10 am
7	6/20/18	1 pm
8	6/20/18	3.30 pm
9	6/26/18	10 am
10	6/26/18	1 pm
11	6/26/18	3.30 pm
12	6/27/18	1 pm
13	6/27/18	3.30 pm
14	7/3/18	1 pm
15	7/3/18	3.30 pm
16	7/4/18	2 pm

Chooser sessions		
Session	Date	Time
1	7/10/18	2 pm
2	7/10/18	3.30 pm
3	7/11/18	2 pm
4	7/11/18	3.30 pm
5	10/1/18	2pm

D.3 Instructions for the online component

[Horizontal lines represent screen breaks.]

Technical Check

To test whether your computer can display the study correctly, please copy the following number into the field below.

[Number]

If you do not see the number above, make sure Javascript is enabled on your web browser. Alternatively, use a different web browser.

This is a research study by the University of Cologne and the University of Toronto.

Parts

This study has two parts.

Online Part

Finish this part until [Date] (by midnight). This will only take a few minutes.

If you do not complete the online part, you will not be allowed to participate in the laboratory part.

Laboratory Part

Please appear in the laboratory at the time mentioned in the invitation email. This part will take between 1 and 2 hours.

PAYMENT

The payment for your participation in this study consists of two parts:

Base payment €12,50

[For sessions 1 and 2, the base payment was 9.50]
(€4.50 for the appearance at the laboratory part, and €8 for the completion of the laboratory part)

Bonus payment between €0 and €15

You will receive your base payment as soon as you have completed the laboratory part of the study.

The exact amount of your bonus payment, as well as the time at which you will receive it, depends on your decisions, as well as on chance.

The bonus payment and €5 of the base payment will be transferred via PayPal. For this purpose, you will provide your email address for the referral to the laboratory staff.

If you finish the online part but do not appear in the laboratory, you are entitled to pick up €2 at Prof. Ockenfels's office on weekdays between 10 a.m. and 12 noon until one week after the laboratory part's date.

At this stage, the subject gives informed consent. If no consent is given, the study is terminated.

Instructions for the online part

IMPORTANT: What happens in the online part of this study has no influence on what will happen in the laboratory part of the study.

In this part of the study you will participate in 12 decision rounds. Then you will answer some questions about yourself.

In each round you will see a list of six decisions, for example as follows:

Option A1	◯	◯	Option B1
Option A2	◯	◯	Option B2
Option A3	◯	◯	Option B3
Option A4	◯	◯	Option B4
Option A5	◯	◯	Option B5
Option A6	◯	◯	Option B6

These options will be replaced by specific amounts of money.

Your task is to select the option you truly prefer on each line.

With 25% probability, your total bonus payment will be determined by a single decision in one such list. In this case you will receive exactly what you have chosen on the corresponding line. (Which list and which decision this will be will be randomly decided by the computer at the end of this study.)

You should make every decision as if it were the one that counts - because it might be.

Bonus payment for this part
There is a 25% chance that your bonus payment from this study will be determined exclusively by this part of the study. (With the remaining probability of 75% it will be determined by a decision you will make in the laboratory part.)

In this case, at the end of the whole study, the computer will randomly select one of the decision rounds, and one decision from that round. You will receive exactly what you have chosen in this decision.

So it is in your interest to make every decision as if it were the one that counts because it may be!

Payments that depend on chance
Some options you can choose depend on chance (such as "Get €X with p% probability").

If you choose such an option, and it is randomly selected to determine your bonus payment, the following will happen. At the end of the laboratory part of this study, the study director will provide you with a die. You will be able to throw it once. The resulting number determines your final payout.

Late Payments
Some options you may choose involve receiving a certain amount of money at a given future date. This date can be up to six months after the laboratory part.

On behalf of the Ockenfels research group, we guarantee that if you decide for such an option, we will transfer exactly the specified amount at the specified time by PayPal.

The online part of this study starts now.
Your decisions and answers **will not** affect what will happen in the laboratory part of this study.

Please click NEXT.

[Decisions regarding time. The parameters X and Y are listed in footnote 7 of the main text.]

Please select an option on each line according to your real preference.

I would rather have ...

...€X on the day of the laboratory part	◯	◯	...€Y 1 month after the laboratory part
...€X on the day of the laboratory part	◯	◯	...€Y 2 months after the laboratory part
...€X on the day of the laboratory part	◯	◯	...€Y 3 months after the laboratory part
...€X on the day of the laboratory part	◯	◯	...€Y 4 months after the laboratory part
...€X on the day of the laboratory part	◯	◯	...€Y 5 months after the laboratory part
...€X on the day of the laboratory part	◯	◯	...€Y 6 months after the laboratory part

[Decisions regarding risk. The parameters X and Y are listed in Appendix Section D.1.]

Please choose one option on each line, depending on what you really prefer (all payments for this round will be made on the day of the lab experiment)
I would rather have ...

...€X with probability p% and €Y with probability $(1-p)$%	◯	◯	...€6 with certainty
...€X with probability p% and €Y with probability $(1-p)$%	◯	◯	...€5 with certainty
...€X with probability p% and €Y with probability $(1-p)$%	◯	◯	...€4 with certainty
...€X with probability p% and €Y with probability $(1-p)$%	◯	◯	...€3 with certainty
...€X with probability p% and €Y with probability $(1-p)$%	◯	◯	...€2 with certainty
...€X with probability p% and €Y with probability $(1-p)$%	◯	◯	...€1 with certainty

Questions about yourself.

To conclude the online part, we would like to ask you some questions about yourself.

Please answer truthfully.

Your answers will not affect your payment or what will happen in the laboratory part of this study.

What is your gender?
[male; female; not listed above (e.g. genderqueer); prefer not to say]

How old are you?
[18 - 90]

How many credit cards do you hold?
[1; 2; 3; 4; 5; 6; 7; 8; 9; 10; >10; prefer not to say]

How much credit card debt do you currently have (in total, in Euros, across all your credit cards)?
[; 0; 1–250; 251–500; 501–750; 751–1000; 1001–1500; 1501–2000; 2001–3000; 3001–5000; 5001–10000; >10000]

How much money do you spend on average per month (including rent, food, mobility, etc.)?
[€ 0 - € 50; € 50 - € 100; € 100 - € 150; € 150 - € 200; € 200 - € 250; € 250 - € 300; € 300 - € 350; € 350 - € 400; € 400 - € 450; € 450 - € 500; € 500 - € 600; € 600 - € 700; € 700 - € 800; € 800 - € 900; € 900 - € 1000; € 1000 - € 1250; € 1250 - € 1500; € 1500 - € 1750; € 1750 - € 2000; € 2000 - € 2500; € 2500 - € 3000; more than € 3000; I prefer not to say]

Please select the statement that describes you best *[Choices were displayed in individually randomized order.]*
[I am a patient person. I am happy with this. (I often forego things in the present with regard to the future.); I am a patient person. I often regret my decisions. (Perhaps too often, I forego things in the present with regard to the future.); I am an impatient person. I am happy with this. (I rarely forego things in the present with regard to the future.); I am an impatient person. I often regret my decisions. (Perhaps too rarely, I forego things in the present with regard to the future.)]

Please select the statement that describes you best
[I am a risk-taker. I am happy with that. (I like to take risks.); I am a risk-averse person. I am happy with that. (I try to avoid risks if possible.); I am a risk-taker. I often regret my decisions. (I might be taking too many risks.); I am a risk-averse person. I often regret my decisions. (I might be trying to avoid risks too much.)]

Please select the statement that describes you best: I often do without things so that I can afford more later.
[Absolutely not like me; Very little like me; Not really like me; Neutral; A little like me; Very similar to me; Absolutely like me]

Are you generally a person who takes risks or do you try to avoid them?
[I try extremely hard to avoid risks; I try pretty hard to avoid risks; I try a little bit to avoid risk; I don't dislike taking risks; I'm quite willing to take risks; I'm extremly willing to take risks]

Please select the statement that describes you best: I tend to put things off until later, although it would be better to do them right away.
[Absolutely not like me; Very little like me; Not really like me; Neutral; A little like me; Very similar to me; Absolutely like me]

At which faculty do you study?
[Faculty of Economics, Management and Social Science; Faculty of Law; Faculty of Medicine; Faculty of Philosophy; Faculty of Mathematics and Natural Sciences; Faculty of the Humanities; I am not a student]

Which state conferred your Abitur?
[Baden-Württemberg; Bayern; Berlin; Brandenburg; Bremen; Hamburg; Hesse; Mecklenburg-Vorpommern; Niedersaxen; Nordrhein-Westfalen; Rheinland-Pfalz; Saarland; Sachsen; Sachsen-Anhalt; Schleswig-Holstein; Thüringen; I received the International Baccalaureate; I do not have an Abitur; I prefer not to say]

What was your Grade Point Average in the Abitur?
[1.0, 1.1, 1.2, . . . , 3.9, 4.0; I do not have an Abitur; I do not remember; I prefer not to say]

What was your Abitur grade in Mathematics?
[15 points (1+), 14 points (1), 13 points (1-), 12 points (2+), 11 points (2), 10 points, (2-), . . . , 3 points (5+), 2 points (2), 1 point (2-), 0 points; I do not have an Abitur; I do not remember; I prefer not to say]

What was your Abitur grade in German?
[15 points (1+), 14 points (1), 13 points (1-), 12 points (2+), 11 points (2), 10 points, (2-), . . . , 3 points (5+), 2 points (2), 1 point (2-), 0 points; I do not have an Abitur; I do not remember; I prefer not to say]

Have you taken an honors class in Mathematics in high school (Leistungskurs im Abitur)?
[Yes; No; I do not have an Abitur]

Have you taken an honors class in German in high school (Leistungskurs im Abitur)?
[Yes; No; I do not have an Abitur]

This is the end of the online part of this study

Please arrive at the laboratory on time.

This is a study of individual decision making. Therefore, please do not discuss this study with other people.

Please close this browser window.

(If you leave this window open, the laboratory part of this study will not start for you.)

D.4 Instructions for the laboratory component

Laboratory Part

Please enter your personal experiment code to ensure that you are proceeding with the correct questionnaire.[10]

Please enter the password provided by the experiment staff to start the laboratory part of this study.[11]

Instructions

Please read carefully.
This study contains multiple comprehension tests.
For simplicity, this study uses male pronouns throughout. They refer to both genders.

Payment for this study

The laboratory component of this study consists of 3 parts. Your decisions influence not only your own pay, but also that of future experiment participants. The study ends with some opinion questions, and some questions about yourself.

Affecting your own payment
There is a 75% chance that the lab component of the study will determine your bonus payment. (With the remaining 25% probability, your bonus payment will be determined by the online component.)

In this case your payment will be determined by exactly one of the three parts of the lab component. At the end of the study, the computer will randomly select a part and a decision you made in that part. This decision will be the only one that determines your bonus payment.

So you should make every decision as if it's the one that counts - because it may be!

Affecting the payment of other experiment participants

A part of this study consists of decisions that affect a future experiment participant. You will be able to influence that person's decision options and bonus payment.

At the end of this study, the computer selects *exactly one* decision you have made in this part. With a 1 in 4 chance we will match you with a future experiment participant. Your decisions in this study will then affect that person exactly as you have determined.

The future experiment participant's options for the bonus payment are determined entirely by the single decision of yours that the computer has randomly selected to be carried out.

You are the only person who determines the options of this future experiment participant. The future experiment participant will not make decisions that affect others; all his decisions will only affect himself.

None of the options that may determine your own payment in this study have been influenced by anyone else.

IMPORTANT: There is NO DECEPTION in this study. We will conduct the partner studies with the future experiment participants within the next 30 days and your decisions will affect future experiment participants with exactly the stated probability.

Anything else would violate the Ethics Protocol (UT36180) under which this study is conducted.

Some rounds are about money that you or the other experiment participant can receive at different times. Other rounds are about gold and silver coins. We now explain these one after the other.

Money at different points in time

In every decision concerning money at different points in time, the following choice will be made available (both for the future experiment participant, and for you):

Standard option:
Receive a bonus of €0 today and €15 in 6 months.

Alternative options such as the following may also be available:
Receive a bonus of €X today and €Y in 6 months.

[10] Each participant received an individual number in the invitation email. They were asked to sit at the computer terminal corresponding to their number. That computer contained the individual-specific link to the qualtrics survey that the subject had started in the online part. This mechanism ensures that subjects continue with their own survey, without requiring the storage of any identifiable data within the qualtrics survey.

[11] Subjects could begin the laboratory part only after every subject was seated at the correct terminal. At that stage, the experiment staff supplied the password required to continue.

(X and Y will be replaced by concrete amounts)

On behalf of the Ockenfels research group, we guarantee that if an experiment participant chooses such an option, we will transfer exactly the specified amount at the specified time via PayPal.

Gold and silver tokens

Some decisions in this study concern gold and silver tokens. If an experiment participant is paid with gold and silver tokens, the following will happen.

We will exchange all tokens into Euros and transfer them to the PayPal account of the experiment participant on the day of the study.

Value of gold and silver tokens

Each **gold token** is worth exactly €**1**.

The value of the silver tokens varies for different experiment participants.

For **1/3** of the participants the value of a **silver token is** €**1**.
For another **1/3** it is €**0.5**.
And for the last **1/3** it is €**0**.

Before the future experiment participant makes a choice, he learns exactly how many Euros he will receive per silver token. If you make a choice regarding the tokens for your own bonus, you will also know exactly how many Euros you will receive per silver token.

However, you will **not** know how many euros the future experiment participant will receive per silver token. He could get €1,€0.5, or €0 per silver token. All you know is that for the future experiment participant each of these cases is equally likely.

To ensure that you have understood these elements of the study correctly, please click on all true statements (and only those).[12]

- ☐ For 1/3 of the experiment participants the value of a silver token is €1. For another 1/3 it is €0.5. And for the last 1/3 it is €0. I will know which of them the future experiment participant will get, but the future experiment participant will not know.
- ☐ For 1/3 of the experiment participants the value of a silver token is €1. For another 1/3 it is €0.5. And for the last 1/3 it is €0. The future experiment participant will know which one of these he will get before making a choice, but I don't know which one he will get.
- ☐ My bonus payment is determined by three randomly selected decisions, one from each part of the study.
- ☐ My bonus payment is determined by exactly one decision from one part of the study.
- ☐ The options of the future experiment participant who is assigned to me with a 1 in 4 chance are completely determined by a single randomly selected decision of mine.
- ☐ All the decisions I make in the study do not affect anyone else, but determine my own payment.

If you feel that you have understood the instructions but still cannot continue, please raise your hand.

The three parts of the laboratory component of this study begin now.

You will receive the instructions for each part just before the corresponding part begins.

Part 1 of 3

The decisions you make in this part will affect another experiment participant's bonus payment.

This is the longest part of the study, and will take about twice as long as the other two parts.

Please make all decisions in this section carefully.

How the future experiment participant is affected by your decisions in this part

This part has 25 rounds. Each round has two halves.

The computer randomly selects one round from this part and one of the two halves within this round. Every round and every half is equally likely.

The bonus payments and decision options of the future experiment participant will be determined by exactly this decision of yours.

So you should make every decision as if it were the decision that will affect the future experiment participant. Because it may be!

How this part affects your own bonus payment

It is in your own interest to be attentive. At the end of this part there will be a test of what happened during this part. It is possible that your bonus payment for this study will be determined entirely by your performance on this test.

We now explain what will happen in each of the two halves of each round.

[12] All statements were displayed in individually randomized order. A subject could continue only if he had correctly marked all of the statements. In case of an error, the participant did not receive feedback about which of the statements was marked incorrectly.

First half of each round

Available and unavailable choice options
The future experiment participant will be able to choose his bonus payment from a set of options as follows:[13]

Opportunity set X

☐	Option A
☐	Option B
☐	Option C

(Options A, B, and C will be replaced by concrete payments.)

You decide whether all options should be available to the future experiment participant or whether one or more of them will be unavailable. (You must make at least one option available in each round.)

We ask you to make these decisions with care. There are no right or wrong decisions. These decisions do not affect your own bonus payment.

The details by which you will make the choice options of the future experiment participant available or unavailable will vary across the rounds.

Why such decisions?

People have different views about influencing other people's choices and decisions.

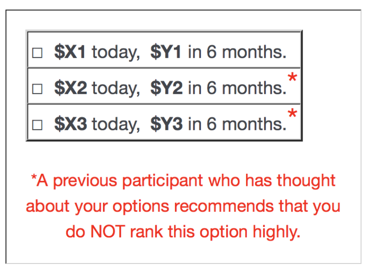
There are no right or wrong answers. We ask you to make exactly those decisions that reflect your genuine views.

Messages to the future experiment participant

In addition to making options available or unavailable, you will be able to send messages to future experiment participants if you wish. There are two types of messages in this study.

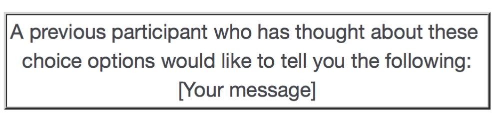
Click messages

In some rounds you will be able to click a button to advise the future experiment participant not to rank an option highly. If you do, the future experiment participant will see the following when making decisions about his options:



Free-form messages

If you wish, you can also send a freely formulated message to the future experiment participant. In this case, the future experiment participant will see the following when deciding between his options:



[This screen is only displayed to participants in the Choice Distribution Information treatment]

How previous experiment participants have chosen from the options

In addition to making options available or unavailable, in each round you can click a button to view a table like the following.

N1 of 100 previous experiment participants chose	€X1 today and €Y1 in six months
N2 of 100 previous experiment participants chose	€X2 today and €Y2 in six months
N3 of 100 previous experiment participants chose	€X3 today and €Y3 in six months

[13] There is no natural-sounding translation of the expression 'opportunity set' in German. We have used the semantically closest expression 'Warenkorb'. Its literal translation is 'basket of goods'.

This table displays how 100 previous experiment participants have chosen between the options when all options were available (X1, Y1, N1, etc. will be replaced by numbers).

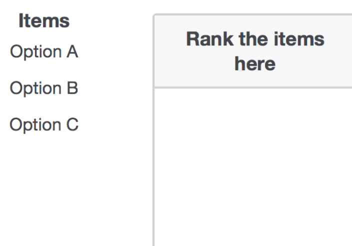
How the future experiment participant will choose

The future experiment participant will **not** see which of the options are available in an opportunity set and which are not.

Instead, he will see all options and rank them according to his preference, regardless of whether they are available or not. The participant then receives the available option that he has ranked the highest.

The experiment-participant will know that not all options may be available, and that he will receive the option he has ranked the highest among those options that are available. This is all he knows about how his payments are determined.

Here you can see how the future experiment participant can rank his options. We will ask him to put the option he most wants first and the option he least wants third (To try this, drag the options into the box on the right.)



Example

Suppose there are three options, A, B and C.

Also suppose you make option A unavailable for the future experiment participant.

For example, the future experiment participant might rank A first, then B, and C last. In this case, the experiment participant will receive B. The reason is that A is not available, and the participant ranks B higher than C.

To ensure that you understand how your decisions affect the other experiment participant, please answer the following questions.

Each question concerns three options, A, B and C.

Assume that the future experiment participant ranks B at the top, followed by C, and that he ranks A lowest.

If all options are available, which will the future experiment participant receive?
[Option A, Option B, Option C.]

If Option A is not available, which option will the future experiment participant receive?
[Option A, Option B, Option C.]

If Option B is not available, which option will the future experiment participant receive?
[Option A, Option B, Option C.]

If Option C is not available, which option will the future experiment participant receive?
[Option A, Option B, Option C.]

If Option B and C are not available, which option will the future experiment participant receive?
[Option A, Option B, Option C.]

Second Half of Each Round

In the second half of each round you will see two opportunity sets according to which the choices of future experiment participants could be determined, such as in the following example.

Opportunity Set Right	Opportunity Set Left
Option A	Option A
Option B	~~Option B~~
Option C	Option C

In this example, all options are available in the opportunity set on the left. Option B is not available in the opportunity set on the right.

Your decision is

- whether the future experiment participant should receive the option that he has ranked highest from the opportunity set on the left, or
- whether the future experiment participant should receive the option that he has ranked the highest from the opportunity set on the right; AND additionally the amount €Z should be added to / deducted from his base payment for the experiment.

You make several such decisions, for different values of Z, in a list such as this one:

The bonus payment of the future participant should be determined by . . .

. . . opportunity set Left and his base payment remains unchanged	◯	◯	. . . opportunity set Right and his base payment is raised by €0.5.
. . . opportunity set Left and his base payment remains unchanged	◯	◯	. . . opportunity set Right and his base payment is raised by €0.3.
. . . opportunity set Left and his base payment remains unchanged	◯	◯	. . . opportunity set Right and his base payment is raised by €0.2.
. . . opportunity set Left and his base payment remains unchanged	◯	◯	. . . opportunity set Right and his base payment is raised by €0.1.
. . .			. . .

Implementation

If this half of a round is randomly selected for the implementation, the following will happen:

The computer randomly selects one of the lines in the list. The decision you made in this line is carried out.

Therefore, you should make every decision on each line as if it were the one that counts. Because it may be!

In some rounds Opportunity Set Left and Opportunity Set Right may be the same. This is intentional. In these cases too, please make a careful choice in each line.

In the second half of each round we will also ask you:

In your opinion, which opportunity set is better for the future experiment participants' own good?

This question refers to **your opinion** about which opportunity set is better for the future experiment participant's own good – **regardless of whether the future experiment participant would agree with you or not!**

To ensure that you have understood these elements of the study correctly, please click on all true statements (and only those).[14]

- ☐ The computer will carry out all decisions I make in this part.
- ☐ I can make some options available and others not, if I think that is right.
- ☐ I can make all the options available if I think that is right.
- ☐ I can make all but one option unavailable if I think that's right.
- ☐ There are NO right or wrong decisions, I can make available or unavailable whatever I think is right (as long as at least one option is available for the future experiment participant).
- ☐ There ARE right or wrong decisions, I can NOT just make available or unavailable whatever I think is right.
- ☐ The future experiment participant will only see the options I make available and will not even see the options I make unavailable.
- ☐ The future experiment participant will rank all options. He will not know which ones are available or unavailable. His bonus payment is based on the option he has ranked most highly amongst those that are available.
- ☐ The computer carries out ONE randomly selected decision. This decision is equally likely from the first half of a round as from the second half of a round. And each round is equally likely.

If you feel that you have understood the instructions but still cannot continue, please raise your hand.

First half of round X

(Note: The subject is informed that they have been matched with another participant that's either impatient and unhappy, impatient and happy, patient and unhappy, patient and happy, or they are informed that they have been matched randomly.)

If this round is implemented, it will concern an experimental participant who says about himself:

I'm an impatient person. I often regret my decisions. (Perhaps too often, I forego things in the present with regard to the future.)

[14] All statements were displayed in individually randomized order. A subject could continue only if he had correctly marked all of the statements. In case of an error, the participant did not receive feedback about which of the statements was marked incorrectly.

Which of the choice options will be available to the future participant?
(You must make at least one option available)

	Available	Unavailable	Recommend against
€X1 today, **€Y1** in 6 months from today.	◯	◯	☐
€X2 today, **€Y2** in 6 months from today.	◯	◯	☐
€X3 today, **€Y3** in 6 months from today.	◯	◯	☐

If you have a message for the future participant, enter it here:

(Note: For surrogate choices, subjects are shown .)

In this round you can make exactly one option available to the future experiment participant. Which option will that be?

◯ €**X1** today €**Y1** in 6 months from today
◯ €**X2** today €**Y2** in 6 months from today
◯ €**X3** today €**Y3** in 6 months from today

Second half of round X

(Note: The subject is informed that they have been matched with another participant that's either impatient and unhappy, impatient and happy, patient and unhappy, patient and happy, or they are informed that they have been matched randomly.)

If this round is implemented, it will concern an experimental participant who says about himself:

I'm an impatient person. I often regret my decisions. (Perhaps too often, I forego things in the present with regard to the future.)

Choice Set Left	Choice Set Right
€**X1** today, €**Y1** in 6 months	€**X1** today, €**Y1** in 6 months
€**X2** today, €**Y2** in 6 months	€**X2** today, €**Y2** in 6 months
€**X3** today, €**Y3** in 6 months	~~€X3 today, €Y3 in 6 months~~

Which choice set is better for the future participant's own good?

Choice set Left	Both equal	Choice set Right
◯	◯	◯

The bonus payment of the future participant should be determined by ...

...choice set Left, and his base payment remains unchanged	◯	◯	...choice set Right and his base payment is raised by €1.
...choice set Left, and his base payment remains unchanged	◯	◯	...choice set Right and his base payment is raised by €0.5.
...choice set Left, and his base payment remains unchanged	◯	◯	...choice set Right and his base payment is raised by €0.2.
...choice set Left, and his base payment remains unchanged	◯	◯	...choice set Right and his base payment is raised by €0.1.
...choice set Left, and his base payment remains unchanged	◯	◯	...choice set Right and his base payment is lowered by €0.1.
...choice set Left, and his base payment remains unchanged	◯	◯	...choice set Right and his base payment is lowered by €0.2.
...choice set Left, and his base payment remains unchanged	◯	◯	...choice set Right and his base payment is lowered by €0.5.
...choice set Left, and his base payment remains unchanged	◯	◯	...choice set Right and his base payment is lowered by €1.

[The subject proceeds through the remaining rounds of part 1 in the same fashion]

First half of round X

This round concerns a random future experiment participant.

In this round you can make exactly one option available to the future experiment participant. Which option will that be?
The bonus payment of the future experiment participant will be ...

◯ €**X1** today €**Y1** in 6 months from today

◯ €**X2** today €**Y2** in 6 months from today
◯ €**X3** today €**Y3** in 6 months from today

If you have a message for the future participant, enter it here:

Second half of round X

This round concerns a random future experiment participant.

Choice Set Left	Choice Set Right
€**X1** today, €**Y1** in 6 months	€**X1** today, €**Y1** in 6 months
€**X2** today, €**Y2** in 6 months	~~€**X2** today, €**Y2** in 6 months~~
€**X3** today, €**Y3** in 6 months	~~€**X3** today, €**Y3** in 6 months~~

Which choice set is better for the future participant's own good?

Choice set Left	Both equal	Choice set Right
◯	◯	◯

The bonus payment of the future participant should be determined by ...

... choice set Left, and his base payment remains unchanged	◯	◯	... choice set Right and his base payment is raised by €1.
... choice set Left, and his base payment remains unchanged	◯	◯	... choice set Right and his base payment is raised by €0.5.
... choice set Left, and his base payment remains unchanged	◯	◯	... choice set Right and his base payment is raised by €0.2.
... choice set Left, and his base payment remains unchanged	◯	◯	... choice set Right and his base payment is raised by €0.1.
... choice set Left, and his base payment remains unchanged	◯	◯	... choice set Right and his base payment is lowered by €0.1.
... choice set Left, and his base payment remains unchanged	◯	◯	... choice set Right and his base payment is lowered by €0.2.
... choice set Left, and his base payment remains unchanged	◯	◯	... choice set Right and his base payment is lowered by €0.5.
... choice set Left, and his base payment remains unchanged	◯	◯	... choice set Right and his base payment is lowered by €1.

[The subject proceeds through the remaining rounds of part 2 in the same fashion]

Please answer all questions about this part
If the computer selects this part to determine your payment, your bonus is calculated as follows: You receive €1 for each correct answer, and €0 for each incorrect answer.

In some rounds I could remove options, but I could never add options for the future experiment participant.
[True, False]

For all options which the future experiment participant could receive, the early payment will always be on the day of the experiment.
[True, False]

For some options that the future experiment participant could have received, the late payment will occur up to 7 months after the day of the study.
[True, False]

In some rounds, I had to make a single option available to the future experiment participant; I could not make multiple options available, even if I wanted to.
[True, False]

Some rounds concerned gold tokens and silver tokens. These rounds only concerned money that would be paid soon after the experiment, not money that would be paid only months after the experiment.
[True, False]

Other experiment participants could receive €0.40, €0.50, or €0.60 per silver token, each with the same probability.
[True, False]

In some lines of the decision lists, the base payment of the future participant could be increased. In other rounds it could be decreased.
[True, False]

If I made some options unavailable, this means that the other experiment participant cannot see that option, and therefore does not need to think about these options.
[True, False]

Part 2 of 3

This part has 12 rounds. Each round follows the same structure.

Previous experiment participants decided between different options from shopping baskets of three options each as follows:

Shopping basket X

☐	Option A
☐	Option B
☐	Option C

(Options A, B, and C were concrete payments.)

In each round we show you a different shopping basket. Your task is to estimate how previous participants chose between the options in the given shopping basket.

(In one of the 12 rounds we ask you instead to estimate which of 4 descriptions each of the previous participants considered the best description of themselves.)

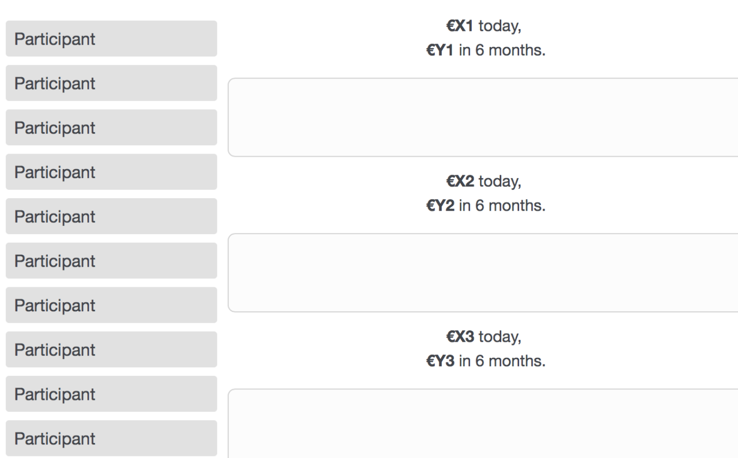
You will make these estimates as follows:

On the left side of the graph below you see "Participant" written 10 times. Each represents one of the 10 experiment participants. You can move them using Drag & Drop.

On the right side you see three fields. Each of them is a choice option.

Your task is to sort each of the 10 experiment participants on the left into one of the boxes on the right, depending on your estimate of how previous experiment participants actually chose from these options.

If you estimate that X of the previous participants had selected option A, that Y had selected option B, and that Z had selected option C, place X of the "Participants" in the "Option A" container, Y of the "Participants" in the "Option B" container, and Z of the "Participants" in the "Option C" container.



How your estimate will affect your bonus payment

Your payment from this study could be determined solely by this part of the study! (The computer will randomly decide whether you will be paid for this or another part.)

If so, the following will happen.

The computer randomly draws a round from this part.

We have data on how 10 previous experiment participants chose among these choice options. We compare your estimate with what the previous experiment participants actually chose.

If your estimate for the selected round is correct, your bonus payment will be €10, which you will receive today via PayPal.

If your estimate is incorrect compared to what previous experiment participants actually did, the following will happen.

Suppose you have assigned too many experiment participants to one option and too few to another option (compared to what the previous experiment participants actually chose).

We then take one of the fields "experiment participant" from one of the containers that has too many fields "experiment participant", and place it in one of the containers that has too few. We will do this until there are exactly as many "experiment participants" fields in each container as we actually observed with the 10 previous experiment participants.

For each "experiment participant" field that we put in a different container in this way, we will deduct €1 from the €10 that you would receive if you had perfectly estimated the decisions of the previous experiment participants. The rest you will receive as a bonus payment.

Therefore, you can expect that you will earn the most with this study if you think carefully about how the previous experiment participants actually decided and place the experiment participants in the containers accordingly.

Gold and silver coins

Some rounds involve decisions on gold and silver coins.

Their estimate concerns former **experiment participants** who knew whether they would receive €1, €0.5, or €0 per silver coin **before** making their decisions.

Please select all true statements. You can continue as soon as you have classified all statements correctly.

- ☐ I will make the most money in this part if I put all the experiment participants in the same container.
- ☐ I will make the most money in this part if I put the same number of experiment participants in each container.
- ☐ I will make the most money in this part by placing the experiment participants in the containers, according to my best estimate of how the previous experiment participants actually decided.
- ☐ If I put too many experiment participants in one container and too few in another (compared to what the previous experiment participants actually chose), I lose €1 for each experiment participant that I put in the wrong container.
- ☐ My answers in this section do not affect my payment.
- ☐ My payment from this study could be determined solely by this part of the study!

If you feel that you have understood the instructions but still cannot continue, raise your hand.

Part 3 of 3

In this section you make decisions that only affect your own payment.

This part has 8 rounds. You will make a selection in each round. At the end of the experiment, the computer randomly selects **exactly one** of your options. If this part determines your payment for this study, this option is the only one that counts.

So you should make every decision as if it were the one that counts. Because it maybe be!

[In rounds corresponding to the Induced Chooser Preferences condition, subjects see the following screen.]

Please choose one of the following options, depending on what you actually prefer.

- ◯ X1 gold coins, Y1 silver coins
- ◯ X2 gold coins, Y2 silver coins
- ◯ X3 gold coins, Y3 silver coins

Value of gold and silver coins
Each gold coin is worth €1.
The value of the silver coins differs between the experiment participants. For you every silver coin is worth €0.5.
This payment will be made today.

[In rounds except those corresponding to the Induced Chooser Preferences condition, subjects see the following screen. In the round with front-end delay, the dates are '1 week from today' and '6 months plus a week from today']

Please choose one of the following options, depending on what you actually prefer.

- ◯ € X1 today, € Y1 in 6 months
- ◯ € X2 today, € Y2 in 6 months
- ◯ € X3 today, € Y3 in 6 months

Completion payment for future experiment participants

There is a 1 in 4 chance that you will be assigned to a second future experiment participant. This is another experiment participant than the one for which you have decided what choice options they should get.

Like yourself, this future experiment participant will receive a base payment of € 9.50 for the completion of the study.

However, you can decide to change his base payment. The base payment of the future experiment participant will be exactly what you decide.

What completion payment should the second future experiment participant receive?

(This is a person other than the one whose options you have made available or unavailable)

- ◯ The future experiment participant should receive a base payment of € 10.50 instead of € 9.50.
- ◯ The future experiment participant should receive the planned base payment of € 9.50.
- ◯ The future experiment participant should receive a base payment of € 8.50 instead of € 9.50.

Questions about your opinion and about yourself

The last part of this study consists of a questionnaire. Please answer the questions honestly. Your answers do not affect your payment or the payment of other people from this study.

We would first like to ask your opinion on four policy proposals.

The first three proposals concern Switzerland. That country is very similar to Germany in many aspects. Since Switzerland has only one tenth of Germany's population and is not a member of the European Union, policy changes in Switzerland have no direct effect on Germany.

Proposal 1: Taxes on high-sugar beverages

Several countries around the world levy taxes on beverages with a high sugar content (which is associated with obesity). These countries include Hungary, Ireland, Norway, the Philippines, the United Arab Emirates, Great Britain and others.

There are many overweight people in Switzerland, as in the vast majority of developed countries.

What is your attitude towards a tax that would increase the price of sugary beverages in Switzerland by 20% (income tax would be reduced so that the government would earn the same tax revenue as before)?

Switzerland should . . .
[definitely not introduce such a tax, probably not introduce such a tax, probably introduce such a tax, definitely introduce such a tax.]

What do you think the effect of such a tax would be?

If such a tax were introduced, people in Switzerland would be on average. . .
[significantly worse off, a little worse off, neither better nor worse off, a little better off, significantly better off.]

Proposal 2: Taxes on alcoholic beverages

Binge drinking is the excessive consumption of alcoholic beverages with the aim of getting heavily drunk. Binge drinking is sometimes considered problematic. One reason is that binge drinking might be harmful to health.

It is therefore being discussed whether alcohol taxes should be increased in order to make binge drinking more expensive and correspondingly less frequent. Specifically, the price of cheap alcohol (spirits and cheap wines) could be increased disproportionately in percentage terms by charging the tax per liter of pure alcohol in the beverage.

What is your attitude towards a tax that would increase the price of spirits and cheap wines in Switzerland by 50%, on average (income tax would be reduced so that the government would earn the same tax revenue as before)?

Switzerland should ...
[definitely not introduce such a tax, probably not introduce such a tax, probably introduce such a tax, definitely introduce such a tax.]

What do you think the effect of such a tax would be?
If such a tax were introduced, adolescents or young adults in Switzerland would be on average...
[significantly worse off, a little worse off, neither better nor worse off, a little better off, significantly better off.]

Proposal 3: Taxes on tobacco

The harmful effects on health and the addictive potential of smoking cigarettes have been proven scientifically.

There is therefore a discussion as to whether taxes on cigarettes and other tobacco products in Switzerland should be further increased in order to reduce consumption and to deter young people more from smoking.

What is your attitude towards a tax that would increase the price of cigarettes of other tobacco products in Switzerland by an average of half the current price (income tax would be reduced so that the government would earn the same tax revenue as before)?

Switzerland should ...
[definitely not introduce such a tax, probably not introduce such a tax, probably introduce such a tax, definitely introduce such a tax.]
What do you think the effect of such a tax would be?

If such a tax were introduced, people in Switzerland would be on average...
[significantly worse off, a little worse off, neither better nor worse off, a little better off, significantly better off.]

Proposal 4: Restrictions on short-term loans

Short-term loans have been available in Germany since 2010. Such loans typically finance consumption, ranging from €50 to €3000, and must be repaid after 30 or 60 days.

The interest that can be charged on such loans is high, but limited by law. Therefore, people with very bad credit cannot obtain such loans, even if banks would be willing to grant such loans at very high interest rates and borrowers with very low credit ratings would be willing to pay very high interest rates for them.

It is being discussed whether the restrictions should be loosened. Advocates argue that many people who really need the money will otherwise not get credit. Opponents argue that such loans are very expensive and people can end up debt cycles.

How do you feel about that? The market for short-term loans in Germany should...
[be severely restricted (in this case, far fewer people can receive a short-term loan), be somewhat restricted (in this case, fewer people can get a short-term loan), remain unchanged, be somewhat liberalized (in this case, more people can get a short-term loan), be severely liberalized (in this case, far more people can get a short-term loan)]
What do you think the effect of such liberalization would be?

If this market were strongly liberalized, the average German would be...
[significantly worse off, a little worse off, neither better nor worse off, a little better off, significantly better off.]

We would now like to ask you some questions about the experimental decisions

The questions on this page concern the following scenario:

Suppose an experiment participant can choose between the following options:

- Option A: Get €0 today, €10 in half a year
- Option B: Get €4 today, €0 in half a year

How easy do you think it is for the future experiment participant to know which of these two options is best for him?
[Very easy, Rather simple, rather difficult, very difficult]

How many out of 10 participants will choose the option that is really best for them?
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

How many out of 10 experiment participants will choose an option other than the one they actually wanted to choose?
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

Suppose an experiment participant chooses "Option A: €0 today, €10 in 6 months from today". Given the experiment participant chooses this option, is this a good or bad choice for this experiment participant?
[Most likely bad, Very likely bad, Somewhat likely bad, Somewhat likely good, Very likely good, Most likely good]

Suppose the experiment participant chooses "€4 today, €0 in 6 months from today". Given the experiment participant chooses this option, is this a good or bad choice for this experiment participant?
[Most likely bad, Very likely bad, Somewhat likely bad, Somewhat likely good, Very likely good, Most likely good]

Suppose an experiment participant can choose between the following options:

- Option A: €0 today, €10 in 6 months from today, and
- Option B: €4 today, €0 in 6 months from today

Assume the experiment participant chooses the less patient option "€4 today, €0 in 6 months from today".

How likely do you think the following reasons are for someone making such a decision?

	Very unlikely	Unlikely	Maybe	Likely	Very likely
They are generally impatient.	○	○	○	○	○
They are not sure if they can receive the money in half a year, for example, because they will no longer have a PayPal account.	○	○	○	○	○
They actually wanted to choose "Get €0 today, €10 in half a year," but chose the other option because an irrelevant event prevented them from choosing what they actually wanted (e.g. their hand trembled, or they confused the order of radio buttons).	○	○	○	○	○
Today they urgently need money to pay expenses such as food or rent.	○	○	○	○	○
They are not sure if the study director would really pay them in half a year.	○	○	○	○	○
They were not attentive and chose randomly.	○	○	○	○	○

In a previous part of this study, you decided to make certain options available or unavailable.

We would like to ask you to explain in your own words: Why did you make the decisions you did?

Specifically we ask you about your decisions in the following round:

The round was about an experimental participant who said about himself:
I'm an impatient person. I often regret my decisions. (I probably do without the present too seldom with regard to the future.)
You have made the following options available: ...
You have made the following options unavailable: ...

Your answer:

[The subject answers this question five times, once for each of the four Chooser types of Table 5, and once for a randomly selected Chooser.]

Finally, please answer the following questions about yourself truthfully

How many alcoholic beverages did you consume on average per week, calculated over the last 12 months? (1 alcoholic drink = 0.2 liter beer, 0.1 liter wine, 1 shot of spirits or liquor)
[10 or more per week, 5-10 per week, 3-5 per week, 1-3 per week, less than 1 per week but some, none]

How often did you have 4 or more alcoholic beverages within a 2-hour period over the last 12 months?
[7 days per week, 5-6 days per week, 3-4 days per week, 2 days per week, 1 day per week, 2-3 days per month, 3-11 days over the last year, 1-2 days over the last year, never]

Sometimes people need to borrow money quickly and take out short-term, high-interest loans. Such loans include consumer loans of EUR 5000 or less with less than 1-year maturity, payday loans, pawn shop loans, or rent-to-own loans (but not credit card debt).

Do you have experience with short-term, high-interest loans?
[No, I've never taken out a loan like this before; Yes, I have taken such a loan in the past, but I don't do it regularly; Yes, I regularly take out such loans]

If you have taken out a short-term, high-interest loan (for example, payday loan or pawnbroking) in the past:
How did the repayment work? (If you have taken out several such loans or take them out regularly, please indicate what typically happens.)

[I repaid it in full on my next payday without taking out another loan immediately; I repaid it in full or in part on my next payday, but took up another loan to pay it; I held the loan longer than originally planned, but later repaid it without immediately taking out another loan; I held the loan longer than originally planned, but later paid it back and took out another loan to pay the other one; I was unable to pay it back and I went bankrupt with the loan; I've never taken out a loan like this before]

Which of the following categories describes you best? I am...
[severely underweight (BMI <16); underweight (BMI between 16 and 18.5); normal weight, on the lighter side (BMI between 18.5 and 21.7); normal weight, on the heavier side (BMI between 21.7 and 24.9); overweight (BMI between 24.9 and 29.9); severely overweight (BMI > 29.9); I prefer not to say]

[Subjects can click a button labelled 'calculate BMI'. If they do so, a window pops up prompting subjects to enter their weight and height. Upon clicking enter, the subjects can then view their BMI.]

Are you a smoker, or have you ever been a smoker? *[I am a non-smoker, and have never been a smoker; I now am a non-smoker, but I used to be a smoker; I am an occasional smoker; I am a smoker]*

How many cigarettes do you consume per day, based on the last 12 months (excluding e-cigarettes)?
[40 (2 packs) or more per day; Between 20 (1 pack) and 40 (2 packs) per day; Between 10 (1/2 pack) and 20 (1 pack) per day; Between 1 and 10 (1/2 pack) per day; I am a non-smoker]

What is your political orientation?
[left, center-left, left-of-center, centrist, right-of-center, center-right, right]

Memory test

As the final part of this study, you have the opportunity to earn an additional €2. These will be added to all your other payments via PayPal.

In the online part of this study you made a number of decisions about your bonus payment.

In this section we ask you to reproduce these decisions if you remember them.

It is **not** about what options you actually prefer now. It is about clicking on **the same** options as in the online part, even if you might prefer a different option now.

We will show you 4 lists of such decisions. If for all lists you click on the same options as in the online part of this study, we will add €2 to your PayPal payment today.

In each line, please select the SAME option you selected in the online part of this experiment (regardless of which option you currently prefer).

In the online part of this experiment I had chosen the following options:
I would rather have ...

...€X on the day of the laboratory part	◯	◯	...€Y 1 month after the laboratory part
...€X on the day of the laboratory part	◯	◯	...€Y 2 months after the laboratory part
...€X on the day of the laboratory part	◯	◯	...€Y 3 months after the laboratory part
...€X on the day of the laboratory part	◯	◯	...€Y 4 months after the laboratory part
...€X on the day of the laboratory part	◯	◯	...€Y 5 months after the laboratory part
...€X on the day of the laboratory part	◯	◯	...€Y 6 months after the laboratory part

---

In the online part of this experiment I had chosen the following options: I would rather have ...

...€X with probability p% and €Y with probability $(1-p)$%	◯	◯	...€6 with certainty
...€X with probability p% and €Y with probability $(1-p)$%	◯	◯	...€5 with certainty
...€X with probability p% and €Y with probability $(1-p)$%	◯	◯	...€4 with certainty
...€X with probability p% and €Y with probability $(1-p)$%	◯	◯	...€3 with certainty
...€X with probability p% and €Y with probability $(1-p)$%	◯	◯	...€2 with certainty
...€X with probability p% and €Y with probability $(1-p)$%	◯	◯	...€1 with certainty

---

This is the end of this study

Thank you for your participation!

Your Payment

You will receive your showup payment of €4.50 in cash, and your base payment of €5 via PayPal. You will also receive the bonus payment below.

The computer has randomly determined that your bonus payment for this study is determined by . . .

Your bonus payment therefore is €5

Your responses to the memory coincide with your choices in the online part. Therefore you will receive an additional €2.

Do you have any comments on this study?

Please click here if you wish to withdraw your data from this study. If you choose to do so, you will receive €1 for your participation in this study. You will not receive any other payment, and the decisions you have made in this experiment will not affect any future experiment participant.

☐ I want to withdraw my data from the study

Now, please raise your hand.

Someone from the experiment staff will take care of your payment.

D.5 Vignette experiment

Subjects were shown the four policies in individually randomized order. Subjects were paid \$3 for completion, plus an additional \$0.25 for each of eight attention check questions (two per policy) they answered correctly.

[Horizontal lines represent screen breaks.]

Policy 1 of 4: Sugary drinks taxes in Melbourne, Australia

The next questions are all about Anne, a resident of Melbourne, Australia. She is 35 years old, 5 feet and 4 inches tall, and she weighs 190 pounds. According to a classification by the World Health Organization, Anne is thus moderately obese. Sugary drinks such as Coca Cola are a major contributor to the obesity epidemic, according to a study by Harvard University. Currently, Australia does not have a sugary drinks tax. Suppose the city of Melbourne therefore considers introducing a sugary drinks tax. If passed, the price of all sugar-sweetened beverages would double. The value added tax on all other goods would be lowered, so that the state would collect the same overall amount of taxes as without the change.

With the sugary drinks tax, people would consume fewer sugar-sweetened beverages. On the one hand, this would lower their body weight. On the other hand, they would less frequently enjoy the consumption of a good that gives them satisfaction and enjoyment.
[For a random half of subjects, the previous two sentences are presented in reverse order]

For this question, assume that if the tax is introduced, Anne will reduce her consumption of sugary drinks so that her weight permanently drops to 145 pounds (from the previous 190 pounds). Given Anne's height, this is a "normal weight", according to the World Health Organization.

If all residents of Melbourne were exactly like Anne, would you support or oppose the introduction of the tax?
[I would strongly support the tax, I would weakly support the tax, I would weakly oppose the tax, I would strongly oppose the tax]

How do you think Anne is affected overall if the tax is introduced?
[Anne will be much better off with the tax than without, Anne will be a little better off with the tax than without, Anne will be equally well off with the tax as without, Anne will be a little worse off with the tax than without, Anne will be much worse off with the tax than without]

Science does not have a definitive answer about how much the introduction of a sugary drinks tax will change Melbourne residents' body weight. What do you believe are likely effects?

What do you believe is the chance that the tax will cause a typical moderately obese person to lose enough weight to be classified as merely overweight? I believe this is
[Extremely likely, Very likely, Somewhat likely, Somewhat unlikely, Very unlikely, Extremely unlikely]

A sugary drinks tax will not affect everyone equally, because some people are richer than others, some are heavier than others, some like sugary drinks more than others, and so on. On the left you see 10 tags labelled "Random resident". Please sort the labels into the bins to show, from amongst ten randomly selected Melbourne residents, how many people you believe would be affected in what way.
[Subjects drag and drop ten tags labelled "Random resident" into three bins labeled "Better off", "Neither better nor worse off", "Worse off"]

Effect on whole society

If residents like Anne have a healthier weight, this affects the well-being of these residents. It also affects the general public. The reason is that people who have a healthier weight are less likely to get ill and cause medical costs. Health insurance in Australia is partly publicly provided. Hence, the less a person relies on it, the lower the costs she causes to the public.

Suppose the city of Melbourne asked for your opinion on the proposed sugary drinks tax. Please indicate your opinion. I would
[Strongly support the proposed sugary drinks tax, Weakly support the proposed sugary drinks tax, Weakly oppose the proposed sugary drinks tax, Strongly oppose the proposed sugary drinks tax]

What determined your answer in the previous question? The well-being of those who change their sugary drinks consumption, or the effects on society at large (lower health costs)?
[Exclusively the change in well-being of those who change their sugary drinks consumption; Mostly the change in well-being of those who change their sugary drinks consumption; Both, but a little more the change in well-being of those who change their sugary drinks consumption; Both, but a little more the effects on society at large (lower health costs); Mostly the effects on society at large (lower health costs); Exclusively the effects on society at large (lower health costs)]

Questions for bonus payment About how tall is Anne?
[5 feet 0 inches, 5 feet 4 inches, 5 feet 8 inches, 6 feet 2 inches]

What effect would the tax have on the overall price of sugary drinks?
[It would increase one-and-a-half fold, It would increase two fold, It would increase two-and-a-half fold, It would increase three fold, It would increase three-and-a-half fold]

Policy 2 of 4: Alcohol taxes in London, UK

The next questions are all about Peter, an undergraduate student at Queen Mary University, London, UK. Like many undergraduate students, on one day of each weekend, Peter consumes five or more alcoholic drinks within two hours or less, a practice known as binge-drinking. The price of alcohol has a large influence on how much alcohol people consume. Suppose the United Kingdom considers increasing the alcohol tax, such that each unit of alcohol would become twice as expensive as it is today. The value added tax on all other goods would be lowered, so that the state would collect the same overall amount of taxes as without the change.
If the increased tax reduces alcohol consumption, this will have two effects. On the one hand, it will limit the unfavorable health effects of alcohol consumption. On the other hand, people will less frequently enjoy consuming something they like.
[For a random half of subjects, the previous two sentences are presented in reverse order]

For the following questions, assume that if the tax is introduced, Peter reduces his binge drinking from once a week to once a month.

If all residents of London were exactly like Peter, would you support or oppose the tax?
[I would strongly support the tax, I would weakly support the tax, I would weakly oppose the tax, I would strongly oppose the tax]

How do you think Peter is affected overall if the tax is introduced— *[Peter will be much better off with the tax than without, Peter will be a little better off with the tax than without, Peter will be equally well off with the tax as without, Peter will be a little worse off with the tax than without, Peter will be much worse off with the tax than without]*

Science does not have a definitive answer about how much the introduction of an alcohol tax will affect the frequency of binge drinking. What do you believe is the chance that the tax will reduce the frequency by which people like Peter binge-drink by at least half? I believe this is
[Extremely likely, Very likely, Somewhat likely, Somewhat unlikely, Very unlikely, Extremely unlikely]

An alcohol tax will not affect everyone equally, because some people are richer than others, some like to drink alcoholic drinks more than others, and so on. On the left you see 10 tags labelled "random college student". Please sort the labels into the bins to show how many college students you believe would be affected in what way.
[Subjects drag and drop ten tags labelled "Random resident" into three bins labeled "Better off", "Neither better nor worse off", "Worse off"]

Effect on whole society
If college students like Peter binge-drink less frequently, this affects the well-being of these students. It also affects the general public. The reason is that binge-drinking college students sometimes cause trouble to others, for instance, by vomiting in public places, through vandalism, or harassing bystanders.

Suppose the city of London asked for your opinion on the proposed alcohol tax. Please indicate your opinion. I would
[Strongly support the proposed alcohol tax, Weakly support the proposed alcohol tax, Weakly oppose the proposed alcohol tax, Strongly oppose the proposed alcohol tax]

What determined your answer in the previous question? The well-being of those who change their alcohol consumption, or the effects on society at large (less vomit, vandalism, etc.)?
[Exclusively the change in well-being of those who change their alcohol consumption; Mostly the change in well-being of those who change their alcohol consumption; Both, but a little more the change in well-being of those who change their alcohol consumption; Both, but a little more the effects on society at large (less vomit, vandalism, etc.); Mostly the effects on society at large (less vomit, vandalism, etc.); Exclusively the effects on society at large (less vomit, vandalism, etc.)]

Questions for bonus payment
How often does Peter binge-drink?
[Twice a week, Once a week, Twice a month, Once a month, Once every other month]

What effect would the tax have on the overall price of alcohol?
[It would increase one-and-a-half fold, It would increase two fold, It would increase two-and-a-half fold, It would increase three fold, It would increase three-and-a-half fold]

Policy 3 of 4: Restrictions on payday loans in Christchurch, New Zealand

The next questions are all about James, a 40 year old janitor at a school in Christchurch, New Zealand. James receives his paycheck monthly. In the middle of the month, James is running very tight on money. Suddenly, a need comes up that James considers very important. James considers taking out $500 from a payday loan store. If he does so, he will have to repay the $500 he has taken out, in addition to $90 in interest and fees, two weeks later. Currently, New Zealand does not have any restrictions on the interest and fees that payday lenders can charge their clients. New Zealand is considering introducing tight restrictions on payday lending. Those restrictions would consist of upper limits on the interest rates and fees that payday lenders can charge.
Such regulation would have two effects. First, people can get trapped in debt cycles in which they take up loans to pay back previous loans, at ever increasing interest and fee payments. Some experts argue that restrictions on payday lending make debt cycles less likely. Second, fewer people will be able to get a payday loan, because some payday loan shops may go out of business. Hence, some people who would genuinely benefit from a payday loan may no longer be able to obtain them.
[For a random half of subjects, the previous two arguments are presented in reverse order]

Suppose regulation is introduced such that James will be unable to get the payday loan of $500 for a cost of $90 in interest and fees two weeks later. Suppose that James will also be unable to borrow that money from anywhere else.

If all residents of New Zealand were exactly like James, would you support or oppose the introduction of the restrictions?
[I would strongly support the restrictions (so loans become unavailable), I would weakly support the restrictions (so loans become unavailable), I would weakly oppose the restrictions (so loans remain available), I would strongly oppose the restrictions (so loans remain available)]

How do you think James is affected if the regulation is introduced?
[James will be much better off if he cannot get the loan, James will be a little better off if he cannot get the loan, James will be just as well off if he can get the loan as if he cannot get it, James will be a little better off if he can get the loan, James will be a much better off if he can get the loan]

Science does not have a definitive answer about exactly how much the introduction of payday loan regulation limits individuals' ability to obtain high-cost, short-term credit. The reason is that even people they cannot get a payday loan, they may find alternatives, such as pawn shops, bank overdrafts, or asking friends and family. All of these options may also cost much in interest and fees or damaged social relationships, and bear a risk of trapping people in debt cycles.

What do you think are likely effects? I believe that if James can no longer get a payday loan, the chance that he will get a loan from some other place at similar costs with similar risks is
[Extremely high (>90%), Very high (75% - 90%), Somewhat high (50% - 75%), Somewhat low (25%-50%), Very low (10%-20%), Extremely low (<

10%)]

Restrictions on payday lending will not affect everyone equally, because people differ in their reasons for taking out these loans. On the left you see 10 tags labelled "Random resident". Please sort the labels into the bins to show how many people like James (who would otherwise get a payday loan) you believe would be affected in what way if payday loans were no longer available.
[Subjects drag and drop ten tags labelled "Random resident" into three bins labeled "Better off", "Neither better nor worse off", "Worse off"]

Effect on whole society
If workers like James can no longer take out payday loans, this affects these workers. It also affects the general public, for instance by changing the probability that people go bankrupt or become homeless. Suppose the country of New Zealand asked for your opinion on the proposed regulation to limit the availability of payday loans. Please indicate your opinion. I would
[Strongly support the proposed regulation, Weakly support the proposed regulation, Weakly oppose the proposed regulation, Strongly oppose the proposed regulation]

What determined your answer in the previous question? The well-being of those who change their borrowing behavior, or the effects on society at large?
[Exclusively the change in well-being of those who change their borrowing behavior; Mostly the change in well-being of those who change their borrowing behavior; Both, but a little more the change in well-being of those who change their borrowing behavior; Both, but a little more the effects on society at large; Mostly the effects on society at large; Exclusively the effects on society at large]

Questions for bonus payment

If James took out a payday loan of $500 today, how much would he have to repay in total (including interest and fees) in two weeks?
[$500 - $600 in steps of $10]

What line of work is James in?
[Factory worker, Farmer, Janitor, Truck driver, Server at a restaurant, Musician]

Policy 4 of 4: Minimal retirement savings requirements in Dublin, Ireland
The next questions are all about Frank, a 30 years old resident of Dublin, Ireland. Frank's income is EUR2900 per month, which is about USD3300 per month. Currently, Frank does not save anything for retirement. Research finds that in countries in which there is no requirement that people save for retirement, such as the US, only about 1 in 5 working age adults have a retirement savings plan, and that many will start retirement with savings far lower than needed to maintain their standard of living when transitioning into retirement. Ireland currently does not have a minimum retirement savings mandate. For this question, suppose that Ireland considers introducing a law that every working-age adult must save at least 10% of their income for their retirement. Financial advisors recommend that everyone save between 10% and 30% of their income for retirement, depending on their age. If the policy is introduced, Frank would be forced to pay at least $330 per month into a retirement savings account. Upon retirement, he would receive a constant monthly pension for the rest of his life. With the policy could expect to experience only a moderate drop in his standard of living when transitioning into retirement.
Some therefore argue that people should be forced to save some minimal amount for retirement to ensure nobody experiences a large drop in their standard of living upon retirement. Others argue that people should be free to decide how and when to spend or save their money.
[For a random half of subjects, the previous two arguments are presented in reverse order]

Suppose the law is passed that requires Frank to save at least 10% of his income for retirement ($330 of the $3300 he earns each month). If all residents of Ireland were exactly like Frank, would you support or oppose the introduction of the minimal retirement savings law?
[I would strongly support the minimal retirement savings law, I would weakly support the minimal retirement savings law, I would weakly oppose the minimal retirement savings law, I would strongly oppose the minimal retirement savings law]

How do you think Frank is affected if the regulation is introduced?
[Overall, Frank will be much better off if he is forced to save; Overall, Frank will be a little better off if he is forced to save; Overall, Frank will be just as well off if he is forced to save as if he is not; Overall, Frank will be a little worse off if he is forced to save; Overall, Frank will be much worse off if he is forced to save]

Minimal retirement savings laws will not affect everyone equally, because people differ in their financial backgrounds. Some are in stable jobs, while others may be in a period of their lives in which they earn unusually little or unusually much. On the left you see 10 tags labelled "Random resident". Please sort the labels into the bins to show how many people in Ireland you believe would be affected in what way if a minimal compulsory retirement savings rate of 10% were introduced.
[Subjects drag and drop ten tags labelled "Random resident" into three bins labeled "Better off", "Neither better nor worse off", "Worse off"]

Effect on whole society

If workers like Frank save differently for retirement, this affects the well-being of these workers. It also affects the general public, for instance by changing the probability that people go bankrupt or become homeless. Suppose the Republic of Ireland asked for your opinion on the proposed minimal retirement savings law. Please indicate your opinion. I would
[Strongly support the law that forces workers to save 10% of their income for retirement, Weakly support the law that forces workers to save 10% of their income for retirement, Weakly oppose the law that forces workers to save 10% of their income for retirement, Strongly oppose the law that forces workers to save 10% of their income for retirement]

What determined your answer in the previous question? The well-being of those who change their saving behavior, or the effects on society at large (reliance on social security)?
[Exclusively the change in well-being of those who change their saving behavior; Mostly the change in well-being of those who change their saving behavior; Both, but a little more the change in well-being of those who change their saving behavior; Both, but a little more the effects on society at large; Mostly the effects on society at large; Exclusively the effects on society at large]

Questions for bonus payment

What is Frank's approximate monthly income (in USD)
[$1000 - $10,000 in steps of $1000]

If the minimal retirement savings law is introduced, what percentage of his earnings will each resident have to put away, at least, each month?
[1%, 2.5%, 5%, 7.5%, 10%, 12.5%, 15%, 17.5%, 20%, 25%, 30%]

Questions about yourself

As the last part of this survey, we would like to ask 22 questions about yourself. Please answer truthfully.

What is your age?
[18 - 90 in steps of 1 year]

What is your gender?
[male, female, other (e.g. non-binary)]

How do you feel about your own alcohol consumption?
[I am perfectly comfortable with my alcohol consumption; I am fairly comfortable with my alcohol consumption; I feel neutral about my alcohol consumption; I am fairly uncomfortable with my alcohol consumption; I am totally uncomfortable with my alcohol consumption]

How do you feel about your use of short-term credit (such as payday loans)?
[I am perfectly comfortable with my use of short-term credit; I am fairly comfortable with my use of short-term credit; I feel neutral about my use of short-term credit; I am fairly uncomfortable with my use of short-term credit; I am totally uncomfortable with my use of short-term credit]

How do you feel about your retirement savings choices?
[I am perfectly comfortable with my retirement savings choices; I am fairly comfortable with my retirement savings choices; I feel neutral about my retirement savings choices; I am fairly uncomfortable with my retirement savings choices; I am totally uncomfortable with my retirement savings choices]

How do you feel about your body weight?
[I am perfectly comfortable with my body weight; I am fairly comfortable with my body weight; I feel neutral about my body weight; I am fairly uncomfortable with my body weight; I am totally uncomfortable with my body weight]?

How many alcoholic beverages did you consume on average per week, calculated over the last 12 months? (1 alcoholic drink = 0.2 liter beer, 0.1 liter wine, 1 shot of schnapps or liqueur)
[10 or more per week, 5-10 per week, 3-5 per week, 1-3 per week, less than 1 per week but some, none]

How often have you had 4 or more alcoholic beverages within a 2-hour period over the last 12 months?
[For males, "4 or more" is replaced by "5 or more"]
[7 days per week, 5-6 days per week, 3-4 days per week, 2 days per week, 1 day per week, 2-3 days per month, 3-11 days over the last year, 1-2 days over the last year, never]

What is your body height?
Feet *[Subject can enter any integer]*
Inches *[Subject can enter any integer]*

What is your body weight (in pounds)? *[Subject can enter any integer]*

How would you describe yourself?
[Underweight, Healthy weight, Overweight, Moderately obese, Severely obese, prefer not to answer]

Please indicate your current household income in U.S. dollars
[Under $10,000, $10,000 - $19,999, $20,000 - $29,999, $30,000 - $39,999, $40,000 - $49,999, $50,000 - $74,999, $75,000 - $99,999, $100,000 - $150,000, Over $150,000, prefer not to answer]

What is your credit card debt (across all credit cards you have)?
[$0-$500, $500-$1000, $1000-$2500, $2500-$5000, $5000-$7500, $7500-$10,000, $10,000-$20,000, $20,000-$50,000, $50,000 or more, prefer not to answer]

Have you ever taken a payday loan?
[No, never; Yes, once; Yes, a couple of times; Yes, often; prefer not to answer]

Have you ever been in a debt cycle (getting into debt in order to repay other debt)?
[No, never; Yes, once; Yes, a couple of times; Yes, often; prefer not to answer]?

What are your total retirement savings?
[$0, $0 - $10,000, $10,000-$25,000, $25,000-$50,000, $50,000-$100,000, $100,000-$200,000, $200,000-$300,000, $300,000-$400,000, $400,000-$500,000, $500,000-$750,000, $750,000-$1,000,000, more than $1,000,000, I do not know, prefer not to say]

Approximately what percentage of your income do you currently save for retirement each month?
[0%, 0%-2.5%, 2.5%-5%, 5%-7.5%, 7.5%-10%, 10%-15%, 15%-20%, 20%-30%, more than 30%]

Do you currently work for a company that offers a retirement savings plan (401k)?
[Yes, No]

Where do you stand politically?
[Conservative; Leaning conservative; Centrist; Leaning liberal; Liberal]

Please indicate the highest level of education you completed.
[Elementary School, Middle School, High School or equivalent, Vocational/Technical School (2 year), Some College, College Graduate (4 year), Master's Degree (MS), Doctoral Degree (PhD), Professional Degree (MD, JD, etc.)]

Which of the following best describes the area you live in?
[Urban, Suburban, Rural]

Please choose the option that best describes your situation
[I am unemployed, I am employed part-time, I am employed full-time]