# From Extreme to Mainstream: The Erosion of Social Norms 

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## A Theory Appendix

## A. 1 Proofs

## Proof of Proposition 1.

In the private case, $n=0$, and thus each citizen chooses $d_{i}=t_{i}$. So consider the public case. Slightly abusing notation, let us write $U_{A, h}\left(d_{i}\right)$ to denote the utility $U_{i}\left(d_{i}\right)$ of citizen $i$ with $t_{i}=A$ and $h_{i}=h$, and let us write $U_{B, h}\left(d_{j}\right)$ to denote the utility $U_{j}\left(d_{j}\right)$ of citizen $j$ with $t_{j}=B$ and $h_{j}=h$.

In what follows, we denote the equilibrium shares of types $A$ and types $B$ who choose action $A$ by $r_{A}$ and $r_{B}$, respectively. Then an individual with prior belief $P$ about the share of type $A$ (where $P=P_{A}(s)$ for type $A$ and $P=P_{B}(s)$ for type $B$, where $P_{A}(s)$ and $P_{B}(s)$ are defined in the text, believes that a decision-maker who chose $d_{i}=A$ has type $A$ with probability $Q_{P, A}=\frac{P r_{A}}{P r_{A}+(1-P) r_{B}}$, while one who chose $d_{i}=B$ has type $A$ with probability $Q_{P, B}=\frac{P\left(1-r_{A}\right)}{P\left(1-r_{A}\right)+(1-P)\left(1-r_{B}\right)}$.

Our first observation is that the following increasing differences property holds in any equilibrium: $U_{A, h}(A)-U_{A, h}(B)>U_{B, h}(A)-U_{B, h}(B)$. Suppose, to obtain a contradiction, than this is not the case. Let us write down these conditions (we drop the argument $s$ whenever doing so does not cause confusion):

$$
\begin{aligned}
& V_{A}+h\left(P_{A} Q_{P_{A}, A}+\left(1-P_{A}\right)\left(1-Q_{P_{B}, A}\right)\right)-h\left(P_{A} Q_{P_{A}, B}+\left(1-P_{A}\right)\left(1-Q_{P_{B}, B}\right)\right) \leq \\
& \quad h\left(P_{B} Q_{P_{A}, A}+\left(1-P_{B}\right)\left(1-Q_{P_{B}, A}\right)\right)-V_{B}-h\left(P_{B} Q_{P_{A}, B}+\left(1-P_{B}\right)\left(1-Q_{P_{B}, B}\right)\right) .
\end{aligned}
$$

Rearranging, we get

$$
V_{A}+V_{B}+h\left(P_{A}-P_{B}\right)\left(Q_{P_{A}, A}+Q_{P_{B}, A}-Q_{P_{A}, B}-Q_{P_{B}, B}\right) \leq 0
$$

The latter bracket cannot exceed 2 , since all the terms are probabilities lying on $[0,1]$. Thus, we have

$$
V_{A}+V_{B} \leq 2 h\left(P_{A}-P_{B}\right) .
$$

Since $p_{L}<P_{A}<P_{B}<p_{H}$, we have $P_{A}-P_{B}<p_{H}-p_{L}$. However, by Assumption $1, V_{A}, V_{B} \geq$ $h\left(p_{L}-p_{H}\right)$. This contradiction implies the increasing differences property.

This increasing differences property implies that any equilibrium that satisfies the D1 criterion has the feature that if all citizens choose $d_{i}=B$ on equilibrium path, then anyone who deviates to choose action $A$ will be considered to be type $A$ (and the other way around). Indeed, it means that the benefit from deviating to action $A, U_{i}(A)-U_{i}(B)$, cannot be maximized for an individual of type $B$.

To proceed, notice that if $U_{A, h}(A) \geq U_{A, h}(B)$ for some $h$, then $U_{A, h^{\prime}}(A)>U_{A, h^{\prime}}(B)$ for $h^{\prime}<h$. Indeed, suppose not. Denoting

$$
L=P_{A} Q_{P_{A}, A}+\left(1-P_{A}\right)\left(1-Q_{P_{B}, A}\right)-P_{A} Q_{P_{A}, B}-\left(1-P_{A}\right)\left(1-Q_{P_{B}, B}\right),
$$

we have $V_{A}+h L \geq 0$ and $V_{A}+h^{\prime} L \leq 0$, which implies $\left(h-h^{\prime}\right) L \geq 0$, so $L \geq 0$. However, then $V_{A}+h^{\prime} L>0$, a contradiction. Similarly if $U_{B, h}(B) \geq U_{B, h}(A)$ for some $h$, then $U_{B, h^{\prime}}(B) \geq$ $U_{B, h^{\prime}}(A)$ for $h^{\prime}<h$. This implies that $A$ types may choose action $B$ only if their social image concerns exceed a certain cutoff, and the same applies to $B$ types choosing action $A$. More precisely, if $r_{A}$ is the share of $A$ types choosing action $A$, then all those with $h<F\left(r_{A}\right)$ choose action $A$ and all those with $h>F\left(r_{A}\right)$ choose action $B$ (either set may be empty); similarly, $B$ types with $h<1-F\left(r_{B}\right)$ choose action $B$ and those with $h>1-F\left(r_{B}\right)$ choose action $A$.

Let us show that either $r_{A}=1$ or $r_{B}=0$. Suppose not, so $r_{A}<1$ and $r_{B}>0$. This means that citizen $i$ with $t_{i}=A$ and $h_{i}=M$ chooses $B$ and citizen $j$ with $t_{j}=B$ and $h_{j}=M$ chooses $A$. This is only possible if $U_{A, M}(A) \leq U_{A, M}(B)$ and $U_{B, M}(A) \geq U_{B, M}(B)$. However, this contradicts the single crossing property, so either $r_{A}<1$ or $r_{B}=0$ in any equilibrium.

Now fix $r_{B}=0$ and suppose that $h$ is the cutoff social image concern for type $A$, so $r_{A}=F(h)$. Consider $G_{A}(h)=U_{A, h}\left(A \mid r_{A}=F(h), r_{B}=0\right)-U_{A, h}\left(B \mid r_{A}=F(h), r_{B}=0\right)$ as a function of $h$; let us show that it has at most one zero, and if so it changes the sign from positive to negative. We have

$$
\begin{aligned}
& G_{A}(h)=V_{A}+h\left(P_{A} Q_{P_{A}, A}+\left(1-P_{A}\right)\left(1-Q_{P_{B}, A}\right)\right) \\
& -h\left(P_{A} Q_{P_{A}, B}+\left(1-P_{A}\right)\left(1-Q_{P_{B}, B}\right)\right) \\
= & V_{A}+h\left(P_{A}-P_{A} \frac{P_{A}(1-F(h))}{1-P_{A} F(h)}-\left(1-P_{A}\right)\left(1-\frac{P_{B}(1-F(h))}{1-P_{B} F(h)}\right)\right) \\
= & V_{A}+h\left(1-P_{A}\right)\left(\frac{P_{A}}{1-P_{A} F(h)}-\frac{1-P_{B}}{1-P_{B} F(h)}\right) .
\end{aligned}
$$

Suppose that $G_{A}(h)=0$ for some $h$. This implies, in particular, that $\frac{P_{A}}{1-P_{A} F(h)}<\frac{1-P_{B}}{1-P_{B} F(h)}$. It suffices to prove that in that case $\frac{d G_{A}(h)}{d h}<0$. We have

$$
\begin{aligned}
& \frac{d_{A} G(h)}{d h}=h f(h)\left(1-P_{A}\right)\left(\frac{\left(P_{A}\right)^{2}}{\left(1-P_{A} F(h)\right)^{2}}-\frac{P_{B}\left(1-P_{B}\right)}{\left(1-P_{B} F(h)\right)^{2}}\right) \\
& +\left(1-P_{A}\right)\left(\frac{P_{A}}{1-P_{A} F(h)}-\frac{1-P_{B}}{1-P_{B} F(h)}\right) .
\end{aligned}
$$

Consider two cases. If $P_{B} \geq \frac{1}{2}$, then $\frac{P_{B}}{1-P_{B}} \geq 1$, so

$$
\frac{P_{B}\left(1-P_{B}\right)}{\left(1-P_{B} F(h)\right)^{2}}=\frac{P_{B}}{1-P_{B}} \frac{\left(1-P_{B}\right)^{2}}{\left(1-P_{B} F(h)\right)^{2}} \geq\left(\frac{1-P_{B}}{1-P_{B} F(h)}\right)^{2}>\left(\frac{P_{A}}{1-P_{A} F(h)}\right)^{2},
$$

which means that both terms in $\frac{d G_{A}(h)}{d h}$ are negative, which proves that $\frac{d G_{A}(h)}{d h}<0$. So suppose $P_{B}<\frac{1}{2}$, which means $\frac{P_{B}}{1-P_{B}}<1$. We have

$$
\begin{aligned}
\frac{1}{1-P_{A}} \frac{d G_{A}(h)}{d h}= & h f(h)\left(\frac{\left(P_{A}\right)^{2}}{\left(1-P_{A} F(h)\right)^{2}}-\frac{\left(1-P_{B}\right)^{2}}{\left(1-P_{B} F(h)\right)^{2}}\right)+\left(\frac{P_{A}}{1-P_{A} F(h)}-\frac{1-P_{B}}{1-P_{B} F(h)}\right) \\
& +h f(h) \frac{1-2 P_{B}}{1-P_{B}} \frac{\left(1-P_{B}\right)^{2}}{\left(1-P_{B} F(h)\right)^{2}} \\
= & \left(\frac{P_{A}}{1-P_{A} F(h)}-\frac{1-P_{B}}{1-P_{B} F(h)}\right)\left(h f(h)\left(\frac{P_{A}}{1-P_{A} F(h)}+\frac{1-P_{B}}{1-P_{B} F(h)}\right)+1\right) \\
& +h f(h) \frac{1-2 P_{B}}{1-P_{B}} \frac{\left(1-P_{B}\right)^{2}}{\left(1-P_{B} F(h)\right)^{2}} .
\end{aligned}
$$

After plugging in $\frac{P_{A}}{1-P_{A} F(h)}-\frac{1-P_{B}}{1-P_{B} F(h)}=-\frac{V_{A}}{h\left(1-P_{A}\right)}$, we get

$$
\begin{aligned}
\frac{1}{1-P_{A}} \frac{d G_{A}(h)}{d h}= & -\frac{V_{A}}{h\left(1-P_{A}\right)}\left(h f(h)\left(\frac{P_{A}}{1-P_{A} F(h)}+\frac{1-P_{B}}{1-P_{B} F(h)}\right)+1\right) \\
& +h f(h) \frac{1-2 P_{B}}{1-P_{B}} \frac{\left(1-P_{B}\right)^{2}}{\left(1-P_{B} F(h)\right)^{2}} \\
\leq & -\frac{V_{A}}{h\left(1-P_{A}\right)}\left(h f(h)\left(P_{A}+1-P_{B}\right)+1\right)+h f(h) \frac{1-2 P_{B}}{1-P_{B}} \\
< & -\frac{V_{A}}{h}(h f(h)+1)+h f(h) \\
= & \frac{-V_{A}+h f(h)\left(h-V_{A}\right)}{h} \leq \frac{-V_{A}+V_{A}}{h}=0,
\end{aligned}
$$

proving the result.
We can similarly prove that if we fix $r_{A}=1$ and consider $G_{B}(h)=U_{B, h}\left(A \mid r_{A}=1, r_{B}=1-F(h)\right)-$
$U_{B, h}\left(B \mid r_{A}=1, r_{B}=1-F(h)\right)$, which may be written as

$$
\begin{aligned}
& G_{B}(h)=h\left(P_{B} Q_{P_{A}, A}+\left(1-P_{B}\right)\left(1-Q_{P_{B}, A}\right)\right) \\
& -V_{B}-h\left(P_{B} Q_{P_{A}, B}+\left(1-P_{B}\right)\left(1-Q_{P_{B}, B}\right)\right) \\
= & h\left(P_{B} \frac{P_{A}}{1-\left(1-P_{A}\right) F(h)}+\left(1-P_{B}\right)\left(1-\frac{P_{B}}{1-\left(1-P_{B}\right) F(h)}\right)-\left(1-P_{B}\right)\right)-V_{B} \\
= & h P_{B}\left(\frac{P_{A}}{1-\left(1-P_{A}\right) F(h)}-\frac{1-P_{B}}{1-\left(1-P_{B}\right) F(h)}\right)-V_{B},
\end{aligned}
$$

then it has at most one zero, and if so, it changes the sign from negative to positive.
Now consider the following cases. If $V_{A} \geq M\left(1-2 P_{A}\right)$ and $V_{B} \geq M\left(2 P_{B}-1\right)$, then $G_{A}(M) \geq$ 0 and $G_{B}(M) \leq 0$. This implies that there is an equilibrium where all $A$ types choose $A$ and all $B$ types choose $B$, and since $G_{A}(h)>0$ and $G_{A}(h)<0$ for all $h<M$, this is the only equilibrium. Notice that conditions $V_{A}<M\left(1-2 P_{A}\right)$ and $V_{B}<M\left(2 P_{B}-1\right)$ are mutually exclusive (adding the right-hand sides yields $\left.2\left(P_{B}-P_{A}\right)<0\right)$. If $V_{A}<M\left(1-2 P_{A}\right)$ and $V_{B} \geq M\left(2 P_{B}-1\right)$, then all $B$ types choose action $B$, as do some $A$ types, and in that case all $A$ types choose $B$ if and only if $G_{A}(m) \leq 0$. Similarly, if $V_{A} \geq M\left(1-2 P_{A}\right)$ and $V_{B}<M\left(2 P_{B}-1\right)$, then all citizens choose $A$ if and only if $G_{B}(m) \geq 0$. This gives the equilibrium characterization, which completes the proof.

## Proof of Proposition 2.

If $\mu>\frac{1}{2}, \theta\left(p_{L}\right)<\theta<\theta\left(p_{H}\right)$. From now on, let us treat $s$ as a continuous variable; then $\theta(s)$ is increasing in it. The result would follow if we show that the share of senders choosing action $A$ is weakly increaing in $s$. Now, both $P_{A}(s)$ and $P_{B}(s)$ are increasing in $s$. Given the characterization in Proposition 1, this means that an increase in $s$ may switch the equilibrium type from (v) to (iv) to (iii) etc, but not the other way around. Now suppose that for a given $s$ the equilibrium type is (iv), so all $B$ types choose action $B$, and the cutoff $h$ for $A$ types is such that $G_{A}(h)=0$. Since $\frac{d G_{A}(h)}{d h}<0$, it suffices to prove that $G_{A}(h)$ is strictly increasing in $s$ at such $h$. For this, it is sufficient to prove that $G_{A}(h)$ has a positive derivative with respect to $P_{A}$ and nonnegative with respect to $P_{B}$ whenever $G_{A}(h)=0$. We have

$$
\begin{aligned}
\frac{\partial G_{A}(h)}{\partial P_{A}} & =h\left(\frac{1-P_{B}}{1-P_{B} F(h)}-\frac{P_{A}}{1-P_{A} F(h)}\right)+h \frac{1-P_{A}}{1-P_{A} F(h)} \\
& =\frac{V_{A}}{1-P_{A}}+h \frac{1-P_{A}}{1-P_{A} F(h)}>0 ; \\
\frac{\partial G_{A}(h)}{\partial P_{B}} & =h\left(1-P_{A}\right) \frac{1-F(h)}{\left(1-P_{B} F(h)\right)^{2}} \geq 0 .
\end{aligned}
$$

This proves that the share of type $A$ choosing action $A$ is strictly increasing in $s$ if the equilibrium type is (iv). The case of equilibrium type (ii) is considered similarly. This completes the proof.

## Proof of Proposition 3.

Suppose that for $s=p_{L}$, citizens with type $t_{i}=B$ choose action $d_{i}=B$. Then $\operatorname{Pr}_{j}\left(t_{i}=A \mid s=p_{L}, t_{j}, d_{i}=A\right)=$ 1 for either type of citizen $j \neq i$; this follows from Bayes formula if $G_{A}(M)>0$ in equilibrium or from that the equilibrium satisfies the D1 criterion (see the proof of Proposition 1) if $G_{A}(M)=0$. Then the corresponding probability for signal $s=p_{H}, \operatorname{Pr}_{j}\left(t_{i}=A \mid s=p_{H}, t_{j}, d_{i}=A\right) \leq 1=$ $\operatorname{Pr}_{j}\left(t_{i}=A \mid s=p_{L}, t_{j}, d_{i}=A\right)$. Furthermore, if for $s=p_{H}, G_{B}(M)>0$, so some citizens with type $t_{i}=B$ choose action $d_{i}=A$, then $\operatorname{Pr}_{j}\left(t_{i}=A \mid s=p_{H}, t_{j}, d_{i}=A\right)<1$. This completes the proof.

## A. 2 Multiple equilibria

If we do not impose Assumption 1, there may be multiple equilibia. One reason for multiplicity is given by the following example.

Example 1. Let $V_{A}=V_{B}=1, p_{H}=\frac{99}{100}, p_{L}=\frac{2}{3}, \theta=\frac{9}{10}$ (and suppose that the signal is uninformative). Let $m=M=2$, so $h$ has a degenerate distribution (this may be easily generalized to a smooth distribution with high density). In this way, the first part of Assumption 1 is violated, while the second is satisfied.

Here, we have $P_{A} \approx 0.97$ and $P_{B} \approx 0.74$. One can verify that there are three equilibria. In one, every citizen chooses action $A$; in another, both types of citizens choose their preferred action, and there is also a third equilibrium where all $A$ types choose action $A$, while $B$ types split, with about $48 \%$ choosing action $A$ and the rest choosing $B$.

The intuition behind this multiplicity is the following. Choosing one's preferred action is an equilibrium, because an actor of type $B$ believes that there is a sufficient share of type $B$ citizens in the audience. Importantly, if everyone chooses their preferred action, then this action allows the audience to infer the actor's type precisely. Now suppose we make some $B$ actors switch into choosing action $A$. In this case, if a $B$ type citizen chooses action $B$, then everyone will still believe he is $B$, while choosing action $A$ is inconclusive. However, the posterior of a type $A$ audience member will go down very little (her prior that a citizen is type $A$ is very strong), while the posterior of a type $B$ audience member will be more sensitive, and she will put a substantial probability on the actor being type $B$. This effect makes choosing action $A$ more attractive. In other words, if there is some pooling in equilibrium, then for an individual decision-maker, pooling allows to hide true identity and allow every member of the audience to make the inference she finds more likely, which likely corresponds to her type. Notice that such multiplicity may arise because receivers of different types have different beliefs about the distribution of senders.

The next example shows that the second part of Assumption 1 is also necessary to ensure equilibrium uniqueness.

Example 2. Suppose $V_{A}=V_{B}=1, p_{H}=0.9, p_{L}=0.1, \theta=\frac{1}{2}$ (and again, the signal is uninformative). Then type $A$ citizens believe that others are type $A$ with probability $P_{A}=0.82$, while type $B$ citizens believe that others are type $A$ with probability $P_{B}=0.18$. Let $h$ be distributed on $[m, M]$ such that $m \geq \frac{25}{16}=1.5625$ (an example of a distribution that satisfies this and also the first requirement of 1 is one with p.d.f. $f(h)=\frac{1}{h(h-1)}$ for $h \in\left[\frac{25}{16}, \frac{25}{25-9 e}\right]$ and $f(h)=0$ otherwise).

In this example, there are two equilibria. The first has all $A$ citizens choosing $d_{i}=A$ and all $B$ citizens choosing $d_{i}=B$. Indeed, then $r_{A}=1$ and $r_{B}=0$, and the expected utilities of type $A$ from the two actions are

$$
\begin{aligned}
U_{A, h}(A) & =V_{A}+h\left(P_{A} \frac{P_{A} r_{A}}{P_{A} r_{A}+\left(1-P_{A}\right) r_{B}}+\left(1-P_{A}\right)\left(1-\frac{P_{B} r_{A}}{P_{B} r_{A}+\left(1-P_{B}\right) r_{B}}\right)\right) \\
& =V_{A}+h P_{A} ; \\
U_{A, h}(B) & =h\left(P_{A} \frac{P_{A}\left(1-r_{A}\right)}{P_{A}\left(1-r_{A}\right)+\left(1-P_{A}\right)\left(1-r_{B}\right)}+\left(1-P_{A}\right)\left(1-\frac{P_{B}\left(1-r_{A}\right)}{P_{B}\left(1-r_{A}\right)+\left(1-P_{B}\right)\left(1-r_{B}\right)}\right)\right) \\
& =h\left(1-P_{A}\right),
\end{aligned}
$$

and we thus have

$$
U_{A, h}(A)-U_{A, h}(B)=V_{A}+h P_{A}-h\left(1-P_{A}\right)=1+0.64 h>0 .
$$

This means that citizens of type $A$ do not want to deviate, and, similarly, neither do citizens of type $B$.

However, there is another equilibrium, where all $A$ citizens choose $d_{i}=B$ and all $B$ citizens choose $d_{i}=A$. Indeed, if they do, then $r_{A}=0$ and $r_{B}=1$. If so, the expected utilities of type $A$ from the two actions are

$$
\begin{aligned}
& U_{A, h}(A)=V_{A}+h\left(1-P_{A}\right) \\
& U_{A, h}(B)=h P_{A}
\end{aligned}
$$

We thus have

$$
U_{A, h}(A)-U_{A, h}(B)=V_{A}+h\left(1-P_{A}\right)-h P_{A}=1-0.64 h \leq 1-0.64 \times \frac{25}{16}=0
$$

This means that type $A$ citizens are indeed better off choosing action $B$ (and almost all of them strictly so), and likewise $B$ citizens prefer action $A$. Thus, it is an equilibrium.

The intuition behind Example 2 is simple. Citizens of different types may have very different beliefs about the distribution of types in the society, and they overestimate the share of citizens of their own type relative to other players. The example shows that it is possible that everyone chooses the "opposite" action for signaling purposes (and the signals are interpreted correctly, i.e.,
action $A$ is interpreted as evidence that the actor is of type $B$ ). Since both types believe that their type is common, deviating is not profitable, because the audience of their own type will fail to recognize them as one of their own. Despite this simple intuition, we believe that this equilibrium is hardly realistic, and imposed the second part of Assumption 1 to ensure that citizens care about the action enough to rule it out, so $V_{A}$ and $V_{B}$ are not too small relative to social image concerns. Notice that unlike the previous example, this type of multiplicity may arise because senders of different types have different beliefs about the distribution of receivers.

Even though we impose Assumption 1 in the model, the comparative statics results would hold more generally. For example, if the first part of Assumption 1 is violated, the signs of the derivatives with respect to $\theta$ (as computed in the proof of Proposition 1) are still the same. This means that for monotonic equilibria (i.e., those where type $A$ is more likely to choose action $A$ than type $B$ ), the comparative statics would hold in the ? sense (e.g., for minimal or maximal equilibrium, in the sense of the share of citizens choosing, e.g., action $A$ ).

## A. 3 Numerical example

Figure A1: Numerical Example


We illustrate the comparative statics with a simple example. As before, we interpret type $A$ and action $A$ as xenophobic and type $B$ and action $B$ as tolerant. The society may be either
"more tolerant" with share of $A$ types $p_{L}=0.4$ or "more xenophobic" with this share equal to $p_{H}=0.6$. We will allow parameters $\theta$ (the prior that the society has $p=p_{H}$ ), $\mu$ (signal precision), and the realization of signal $s$ to vary. By varying these parameters, the posterior probability that $p=p_{H}, \theta(s)$, can take any value between 0 and 1 , and so the posterior expectation of the share of xenophobic types $A$ can be anywhere between $p_{L}=0.4$ and $p_{H}=0.6$. Normalize the utility levels of both types to choose their preferred action to $V_{A}=V_{B}=1$ and assume that social image concerns $h_{i}$ are distributed uniformly on $[0,5]$. For these parameter values, both parts of Assumption 1 are satisfied, and therefore there is a unique equilibrium.

On Figure A1, we plot this posterior expectation on the horizontal axis, and we plot the shares of $A$ and $B$ types choosing action $A$, as well as the posterior that someone who chose action $A$ is an $A$ type. We do so in the public case; in the private case, each type would choose their preferred action, and the posterior that someone choosing an action is that type would equal 1.

As one can see, in the public case, tolerant types choose the tolerant action, except if they are sufficiently sure that there are many xenophobic types. Similarly, xenophobic types choose the xenophobic action, unless they believe that tolerant types are prevalent. These effects are symmetric given the symmetry of parameter values. There is also a range of posterior beliefs where all individuals choose their preferred actions. Note that these graphs are monotone: a higher posterior about the share of xenophobic individuals increases the propensity of individuals of either type to choose the xenophobic action, and sometimes strictly so. This illustrates Proposition 2.

On the receivers' side, an increase in the posterior about the share of xenophobic individuals has a nonmonotonic effect. If everyone chooses their preferred action, or if some xenophobes choose tolerant action because of social pressure to do so, anyone who is observed choosing a xenophobic action must be a xenophobe. This is not the case where the posterior about the share of xenophobes is high enough: there, some tolerant individuals choose xenophobic action, and the posterior probability that someone who chose a xenophobic action is truly a xenophobe becomes less than 1. This illustrates Proposition 3.

Note that the assumption made in Proposition 3 is important: the graph of the posterior that an individual who chose action $A$ is indeed type $A$ does not have to be monotonically decreasing more generally. For example, if $p_{H}=1$, then this graph would increase back to 1 as the society becomes sufficiently convinced that almost all individuals are xenophobes. In other words, higher social pressure pushes this curve down, while the direct effect of a higher expected number of xenophobes pushes it up.

## A. 4 Private signals

Throughout the model, we consider signal $s$ to be public. This is motivated by our experimental design. For example, in the experiment during the 2016 election, our subjects presumably knew that if they are contacted by a researcher, this researcher would know the information about Trump's
local popularity that was provided to them. In Experiment 1, because the subjects were not aware of the other treatments, it is likely that they thought that other subjects would be provided the same information, so they would know about Trump's or Clinton's local popularity when accessing the website that we provided. All this points to public signals, where the actor expects the audience to have gotten the signal as well, as the natural assumption in the light of our experiments.

Nevertheless, it is possible that some subjects did not understand or believe that the audience will likely have the same information. For example, in the Experiment 1, even though the link to the survey results was provided to subjects only, some might have thought that this information would be available more broadly (perhaps they thought that their friends would find the results by googling their names). This would correspond to a private signal, where the actor gets the signal about the value of $p$, but the audience does not. In other words, the actor would then maximize

$$
U_{i}\left(d_{i} ; s_{\text {priv }}\right)=V_{t_{i}} \mathbf{I}\left\{d_{i}=t_{i}\right\}+\mathbf{I}_{\text {pub }} h_{i} \sum_{t \in\{A, B\}} \operatorname{Pr}_{i}\left(t_{j}=t \mid s_{\text {priv }}, t_{i}\right) \operatorname{Pr}_{j}\left(t_{i}=t \mid t_{j}=t, d_{i}\right) ;
$$

the difference is that the latter probability is not conditional on the signal $s_{\text {priv }}$ because the audience does not receive the signal.

It is straightforward to show that the comparative statics predictions of the model (Propositions 2 and 3) continue to hold in the case of private signals. The easiest way to see that is to consider the functions $G_{A}(h)$ and $G_{B}(h)$ defined in the proof of Proposition 1 and show that they are monotonically increasing in direct inclusions of $P_{A}$ and $P_{B}$ (which correspond to the actor's beliefs of distribution of $A$ types in the audience, conditional on his type) while holding the inclusions through $Q_{P_{A}, A}, Q_{P_{A}, B}, Q_{P_{B}, A}, Q_{P_{B}, B}$ (which correspond to audience member's posterior conditional on her type and the actor's decision) fixed. This immediately yields the comparative statics result as in Proposition 2, whereas the proof of Proposition 3 remains literally the same. In other words, the predictions of the model do not qualitatively depend on whether the signals are private or public, i.e. if the decision-makers are aware that the audience has the same information or not.

## A. 5 Model of receiver's action

In the model, we assumed that the sender gets direct benefit if the receiver believes they are similar. The implicit reason was that this has an unspecified and unmodeled future benefit, which in practice could be a higher probability of becoming friends, getting hired, or having a more efficient communication. In the experiment, however, some participants of Experiment 1 were in fact rewarded in the dictator game by participants of Experiment 2 in a way consistent with higher donations if participants of Experiments 2 thought of them as similar. Here we build a simple model of the dictator game where the decision-maker cares about similarity.

Suppose that the decision-maker divides a budget $B$ between himself and another participant. Each player's utility is $u(c)$, which is increasing, concave, and for simplicity satisfies the Inada
conditions. The decision-maker cares about the other participant at some rate $r \in(0,1)$. We can think of rate $r$ as the sum of several effects. The may be a baseline altruism $a$, capturing the decision-maker's minimum care for any other individual in the society. On top of that, the weight he puts on the utility of the other individual may be higher if he believes that the two individuals are similar. This effect has been documented in the literature on sociobiology for genetic similarities (e.g., ?), and in the context of dictator games (dividing a budget) for social distance (?) and political distance (?). Let us thus write $r=a+f(s)$, where $f$ is an increasing function of $s$, which is a measure of similarity between the two agents as perceived by the decision-maker.

The decision-maker therefore solves the problem

$$
\begin{gathered}
\max u\left(c_{1}\right)+r u\left(c_{2}\right) \\
\text { s.t. } c_{1} \geq 0, c_{2} \geq 0, c_{1}+c_{2} \leq B
\end{gathered}
$$

In the solution to this problem, the amount the decision-maker gives to the other player, $c_{2}$, satisfies

$$
u^{\prime}\left(B-c_{2}\right)-r u^{\prime}\left(c_{2}\right)=0
$$

Since the left-hand side is increasing in $c_{2}$ (because $u(\cdot)$ is concave) and decreasing in $r$, then $c_{2}$ must be increasing in $r$. This implies, in particular, that a higher degree of similarity $s$ would lead to a higher transfer by the decision-maker.

## B Appendix Tables

Table B1: Experiment 1: Balance of Covariates
$\left.\begin{array}{lcccccc}\hline & \text { Full Sample } & \text { Clinton Won } & \text { Clinton Won } & \text { Trump Won } & \text { Trump Won } & \text { p-value } \\ & & (1) & \text { Private } & (2) & \text { Public } & \text { Private }\end{array} \begin{array}{c}\text { Public } \\ (3)\end{array}\right)$

Notes: Column (1) reports the mean level of each variable, with standard deviations in brackets, for the full sample. Columns (2) to (5) report the mean level of each variable, with standard deviations in brackets, for all the experimental conditions. Column (6) reports the $p$-value of a test that means are the same in all the experimental conditions.

| Table B2: Experiment 1: Heterogeneity |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | White |  | Female |  | Age |  | Married |  | Education |  | Income |  |
|  | No (1) | Yes (2) | No (3) | Yes (4) | Below Median (5) | Above Median (6) | No (7) | Yes (8) | Below Median (9) | Above Median (10) | Below Median (11) | Above Median (12) |
| Public | $\begin{gathered} -0.194 \\ (0.094) \end{gathered}$ | $\begin{aligned} & -0.095 \\ & (0.032) \end{aligned}$ | $\begin{aligned} & -0.121 \\ & (0.044) \end{aligned}$ | $\begin{gathered} -0.087 \\ (0.043) \end{gathered}$ | $\begin{gathered} -0.128 \\ (0.041) \end{gathered}$ | $\begin{gathered} -0.083 \\ (0.046) \end{gathered}$ | $\begin{gathered} -0.094 \\ (0.041) \end{gathered}$ | $\begin{aligned} & -0.117 \\ & (0.046) \end{aligned}$ | $\begin{aligned} & -0.134 \\ & (0.043) \end{aligned}$ | $\begin{gathered} -0.075 \\ (0.043) \end{gathered}$ | $\begin{aligned} & -0.091 \\ & (0.040) \end{aligned}$ | $\begin{gathered} -0.120 \\ (0.047) \end{gathered}$ |
| Trump Won | $\begin{gathered} -0.019 \\ (0.108) \end{gathered}$ | $\begin{gathered} 0.005 \\ (0.034) \end{gathered}$ | $\begin{gathered} 0.007 \\ (0.047) \end{gathered}$ | $\begin{aligned} & -0.002 \\ & (0.045) \end{aligned}$ | $\begin{gathered} 0.016 \\ (0.044) \end{gathered}$ | $\begin{gathered} -0.012 \\ (0.048) \end{gathered}$ | $\begin{gathered} -0.010 \\ (0.043) \end{gathered}$ | $\begin{gathered} 0.018 \\ (0.050) \end{gathered}$ | $\begin{gathered} -0.043 \\ (0.046) \end{gathered}$ | $\begin{gathered} 0.048 \\ (0.046) \end{gathered}$ | $\begin{gathered} 0.008 \\ (0.043) \end{gathered}$ | $\begin{gathered} -0.008 \\ (0.049) \end{gathered}$ |
| Public*Trump Won | $\begin{gathered} 0.075 \\ (0.138) \end{gathered}$ | $\begin{gathered} 0.131 \\ (0.048) \end{gathered}$ | $\begin{gathered} 0.134 \\ (0.064) \end{gathered}$ | $\begin{gathered} 0.110 \\ (0.063) \end{gathered}$ | $\begin{gathered} 0.101 \\ (0.060) \end{gathered}$ | $\begin{gathered} 0.160 \\ (0.068) \end{gathered}$ | $\begin{gathered} 0.160 \\ (0.060) \end{gathered}$ | $\begin{gathered} 0.079 \\ (0.068) \end{gathered}$ | $\begin{gathered} 0.196 \\ (0.063) \end{gathered}$ | $\begin{gathered} 0.051 \\ (0.065) \end{gathered}$ | $\begin{gathered} 0.130 \\ (0.060) \end{gathered}$ | $\begin{gathered} 0.118 \\ (0.068) \end{gathered}$ |
| Mean Donation Rate <br> Clinton Won Private Treatment | 0.333 | 0.299 | 0.330 | 0.276 | 0.287 | 0.321 | 0.293 | 0.316 | 0.312 | 0.295 | 0.270 | 0.343 |
| N | 154 | 1433 | 811 | 776 | 838 | 749 | 883 | 704 | 796 | 791 | 851 | 736 |
| $R^{2}$ | 0.035 | 0.013 | 0.015 | 0.009 | 0.017 | 0.013 | 0.014 | 0.014 | 0.018 | 0.011 | 0.014 | 0.012 |
| Notes: This table reports heterogeneous treatment effects. Each column shows results from a separate OLS regression of a dummy variable for whether an individual donates to the anti-immigration organization on a dummy for the public condition, a dummy for the Trump Won condition, and a dummy for the Trump Won, public condition. The Clinton Won, private condition is the omitted group, for which we report the mean donation rate. Each column shows the results for a different subsample across six traits. "Age" is a dummy that is equal to one for individuals above the median age in the sample, "Education" is a dummy that is equal to one for individuals above the median years of education in the sample, and "Income" is a dummy equal to one for individuals above the median income in the sample. Robust standard errors in parentheses. |  |  |  |  |  |  |  |  |  |  |  |  |

Table B3: Experiment 2: Balance of Covariates

|  | Full Sample <br> (1) | Clinton Won Private (2) | Clinton Won Public <br> (3) | Trump Won Private <br> (4) | Trump Won Public <br> (5) | p-value <br> (6) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 0.511 | 0.519 | 0.485 | 0.528 | 0.514 | 0.586 |
|  | [0.500] | (0.023) | (0.023) | (0.024) | (0.024) |  |
| Age | 44.502 | 45.586 | 43.546 | 44.410 | 44.474 | 0.329 |
|  | [17.054] | (0.801) | (0.754) | (0.801) | (0.834) |  |
| Married | 0.385 | 0.367 | 0.378 | 0.401 | 0.396 | 0.683 |
|  | [0.487] | (0.022) | (0.022) | (0.023) | (0.023) |  |
| Years of Education | 14.304 | 14.245 | 14.395 | 14.315 | 14.261 | 0.747 |
|  | [2.270] | (0.109) | (0.104) | (0.102) | (0.109) |  |
| Household Income (000s) <br> White | 54.962 | 55.569 | 55.738 | 55.170 | 53.307 | 0.747 |
|  | [37.561] | (1.787) | (1.723) | (1.765) | (1.751) |  |
|  | 0.695 | 0.687 | 0.684 | 0.705 | 0.706 | 0.821 |
|  | [0.460] | (0.022) | (0.021) | (0.022) | (0.022) |  |
| N | 1830 | 466 | 474 | 441 | 449 |  |

Notes: Column (1) reports the mean level of each variable, with standard deviations in brackets, for the full sample. Columns (2) to (5) report the mean level of each variable, with standard deviations in brackets, for all the experimental conditions. Column (6) reports the $p$-value of a test that means are the same in all the experimental conditions.

Table B4: Experiment 2: Regressions

| Dependent Variable | Average donation |  | Dummy: no donation |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $(1)$ | $(2)$ | $(3)$ | $(4)$ |
| Clinton Won Private Treatment | -0.100 | -0.100 | 0.102 | 0.101 |
|  | $(0.036)$ | $(0.037)$ | $(0.022)$ | $(0.022)$ |
|  | $[0.008]$ | $[0.008]$ | $[<0.001]$ | $[<0.001]$ |
| Clinton Won Public Treatment | -0.073 | -0.072 | 0.129 | 0.128 |
|  | $(0.037)$ | $(0.037)$ | $(0.023)$ | $(0.023)$ |
|  | $[0.055]$ | $[0.052]$ | $[<0.001]$ | $[<0.001]$ |
| Trump Won Private Treatment | -0.099 | -0.101 | 0.138 | 0.138 |
|  | $(0.037)$ | $(0.037)$ | $(0.023)$ | $(0.023)$ |
|  | $[0.010]$ | $[0.010]$ | $[<0.001]$ | $[<0.001]$ |


| Mean Dependent Variable |
| :--- |
| Trump Won |
| Public Treatment |
| Controls |
| N |

## C Survey Scripts

## C. 1 Demographics

- What is your gender?
- Male
- Female
- What is your year of birth?
- How would you describe your ethnicity/race? Please, check all that apply.
- White or European American
- Black or African American
- Hispanic or Latino
- Asian or Asian American
- Other
- What is the highest level of school you have completed or the highest degree you have received?
- Less than high school degree
- High school graduate (high school diploma or equivalent including GED)
- Some college but no degree
- Associate degree in college (2-year)
- Bachelor's degree in college (4-year)
- Master's degree
- Doctoral degree
- Professional degree (JD, MD)
- What is your household annual income? Please indicate the answer that includes your entire household income in 2015 before taxes.
- Less than $\$ 10,000$
- \$10,000 to \$19,999
- \$20,000 to \$29,999
- \$30,000 to $\$ 39,999$
- \$40,000 to $\$ 49,999$
- \$50,000 to $\$ 59,999$
- \$60,000 to \$69,999
- \$70,000 to $\$ 79,999$
- \$80,000 to \$89,999
- \$90,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 or more
- How many people are in your household?
- 1 (live alone)
- 2
- 3
- 4
- 5
- 6
- 7 or more
- What is your marital status?
- Single
- Married


## C. 2 Experiment 1

## Experiment 1: Trump Won Private

- This study focuses on political and social beliefs in Pittsburgh. Below are three interesting facts about Pittsburgh politics. Which of these facts did you know before reading them here?
- Before Pittsburgh was chartered as a city in 1816, it elected a Chief Burgess rather than a mayor. The first Chief Burgess of Pittsburgh, George Robinson, was arrested on orders from George Washington due to his involvement in the Whiskey Rebellion.
- Pittsburgh native and Olympic qualifying boxer Art Rooney was instrumental in the founding of the Pittsburgh Steelers in the 1930s and the Pittsburgh Penguins in the 1960s. His grandson, Thomas Rooney, serves in the House of Representatives.
- In the 2016 US Presidential Election, Donald Trump won Pittsburgh's metropolitan area.
- We will now randomly select one among two different organizations, and will give you the opportunity to authorize a donation to the selected organization:
One is an organization which seeks to reduce overall migration to the United States;
One is an organization which welcomes immigrants to the United States.
If you choose to authorize the donation, you will receive an additional $\$ 1$, on top of your base payment for completing the survey. The $\$ 1$ donation will not be subtracted from your base payment, so your total compensation will be your base payment plus the extra $\$ 1$.
If instead you choose not to donate, you will only receive your base payment for completing the survey.
- The organization randomly chosen for you is the Federation for American Immigration Reform (FAIR).
The Federation for American Immigration Reform is an immigration-reduction organization of concerned individuals who believe that immigration laws must be reformed and seeks to reduce overall immigration (both legal and illegal) into the United States. The founder of FAIR is John Tanton, author of "The Immigration Invasion" who wrote "I've come to the point of view that for European American society and culture to persist requires a European-American majority, and a clear one at that."
The anonymized results from this survey will be posted on our website in approximately one month. Results will be reported as percentages only, so your individual response to the survey will remain anonymous. We will notify you when the results become available on our website, [website link].
Would you like us to donate $\$ 1$ to FAIR on your behalf?
- Yes, please donate $\$ 1$ to FAIR on my behalf.
- No, please do not donate $\$$ to FAIR on my behalf.
- We will now present two quotes. For each, we will ask you to report what percentage of Pittsburgh voters you believe would agree with the quote.
- "For European American society and culture to persist requires a European-American majority, and a clear one at that."
- "Both legal and illegal immigration should be drastically reduced because immigrants undermine American culture and do not respect American values."


## Experiment 1: Clinton Won Private

- This study focuses on political and social beliefs in Pittsburgh. Below are three interesting facts about Pittsburgh politics. Which of these facts did you know before reading them here?
- Before Pittsburgh was chartered as a city in 1816, it elected a Chief Burgess rather than a mayor. The first Chief Burgess of Pittsburgh, George Robinson, was arrested on orders from George Washington due to his involvement in the Whiskey Rebellion.
- Pittsburgh native and Olympic qualifying boxer Art Rooney was instrumental in the founding of the Pittsburgh Steelers in the 1930s and the Pittsburgh Penguins in the 1960s. His grandson, Thomas Rooney, serves in the House of Representatives.
- In the 2016 US Presidential Election, Hillary Clinton won Pittsburgh's county.
- We will now randomly select one among two different organizations, and will give you the opportunity to authorize a donation to the selected organization:
One is an organization which seeks to reduce overall migration to the United States;
One is an organization which welcomes immigrants to the United States.
If you choose to authorize the donation, you will receive an additional $\$ 1$, on top of your base payment for completing the survey. The $\$ 1$ donation will not be subtracted from your base payment, so your total compensation will be your base payment plus the extra $\$ 1$.
If instead you choose not to donate, you will only receive your base payment for completing the survey.
- The organization randomly chosen for you is the Federation for American Immigration Reform (FAIR).
The Federation for American Immigration Reform is an immigration-reduction organization of concerned individuals who believe that immigration laws must be reformed and seeks to reduce overall immigration (both legal and illegal) into the United States. The founder of FAIR is John Tanton, author of "The Immigration Invasion" who wrote "I've come to the point of view that for European American society and culture to persist requires a European-American majority, and a clear one at that."
The anonymized results from this survey will be posted on our website in approximately one month. Results will be reported as percentages only, so your individual response to the survey will remain anonymous. We will notify you when the results become available on our website, [website link].
Would you like us to donate $\$ 1$ to FAIR on your behalf?
- Yes, please donate $\$ 1$ to FAIR on my behalf.
- No, please do not donate $\$$ to FAIR on my behalf.
- We will now present two quotes. For each, we will ask you to report what percentage of Pittsburgh voters you believe would agree with the quote.
- "For European American society and culture to persist requires a European-American majority, and a clear one at that."
- "Both legal and illegal immigration should be drastically reduced because immigrants undermine American culture and do not respect American values."


## Experiment 1: Trump Won Public

- This study focuses on political and social beliefs in Pittsburgh. Below are three interesting facts about Pittsburgh politics. Which of these facts did you know before reading them here?
- Before Pittsburgh was chartered as a city in 1816, it elected a Chief Burgess rather than a mayor. The first Chief Burgess of Pittsburgh, George Robinson, was arrested on orders from George Washington due to his involvement in the Whiskey Rebellion.
- Pittsburgh native and Olympic qualifying boxer Art Rooney was instrumental in the founding of the Pittsburgh Steelers in the 1930s and the Pittsburgh Penguins in the 1960s. His grandson, Thomas Rooney, serves in the House of Representatives.
- In the 2016 US Presidential Election, Donald Trump won Pittsburgh's metropolitan area.
- We will now randomly select one among two different organizations, and will give you the opportunity to authorize a donation to the selected organization:
One is an organization which seeks to reduce overall migration to the United States;
One is an organization which welcomes immigrants to the United States.
If you choose to authorize the donation, you will receive an additional $\$ 1$, on top of your base payment for completing the survey. The $\$ 1$ donation will not be subtracted from your base payment, so your total compensation will be your base payment plus the extra $\$ 1$.
If instead you choose not to donate, you will only receive your base payment for completing the survey.
- The organization randomly chosen for you is the Federation for American Immigration Reform (FAIR).
The Federation for American Immigration Reform is an immigration-reduction organization of concerned individuals who believe that immigration laws must be reformed and seeks to reduce overall immigration (both legal and illegal) into the United States. The founder of FAIR is John Tanton, author of "The Immigration Invasion" who wrote "I've come to the point of view that for European American society and culture to persist requires a European-American majority, and a clear one at that."
The results from this survey, including your individual donation decision and the donation decisions of all of the other Pittsburgh respondents to this survey, will be posted on our website in approximately one month. There is no need to provide your name, email, etc. here; the survey company we work with has this information already. We will notify you when the results become available on our website, [website link].
Would you like us to donate $\$ 1$ to FAIR on your behalf?
- Yes, please donate $\$ 1$ to FAIR on my behalf.
- No, please do not donate $\$$ to FAIR on my behalf.
- We will now present two quotes. For each, we will ask you to report what percentage of Pittsburgh voters you believe would agree with the quote.
- "For European American society and culture to persist requires a European-American majority, and a clear one at that."
- "Both legal and illegal immigration should be drastically reduced because immigrants undermine American culture and do not respect American values."


## Experiment 1: Clinton Won Public

- This study focuses on political and social beliefs in Pittsburgh. Below are three interesting facts about Pittsburgh politics. Which of these facts did you know before reading them here?
- Before Pittsburgh was chartered as a city in 1816, it elected a Chief Burgess rather than a mayor. The first Chief Burgess of Pittsburgh, George Robinson, was arrested on orders from George Washington due to his involvement in the Whiskey Rebellion.
- Pittsburgh native and Olympic qualifying boxer Art Rooney was instrumental in the founding of the Pittsburgh Steelers in the 1930s and the Pittsburgh Penguins in the 1960s. His grandson, Thomas Rooney, serves in the House of Representatives.
- In the 2016 US Presidential Election, Hillary Clinton won Pittsburgh's county.
- We will now randomly select one among two different organizations, and will give you the opportunity to authorize a donation to the selected organization:
One is an organization which seeks to reduce overall migration to the United States;
One is an organization which welcomes immigrants to the United States.
If you choose to authorize the donation, you will receive an additional $\$ 1$, on top of your base payment for completing the survey. The $\$ 1$ donation will not be subtracted from your base payment, so your total compensation will be your base payment plus the extra $\$ 1$.
If instead you choose not to donate, you will only receive your base payment for completing the survey.
- The organization randomly chosen for you is the Federation for American Immigration Reform (FAIR).
The Federation for American Immigration Reform is an immigration-reduction organization of concerned individuals who believe that immigration laws must be reformed and seeks to reduce overall immigration (both legal and illegal) into the United States. The founder of FAIR is John Tanton, author of "The Immigration Invasion" who wrote "I've come to the point of view that for European American society and culture to persist requires a European-American majority, and a clear one at that."
The results from this survey, including your individual donation decision and the donation decisions of all of the other Pittsburgh respondents to this survey, will be posted on our website in approximately one month. There is no need to provide your name, email, etc. here; the survey company we work with has this information already. We will notify you when the results become available on our website, [website link].
Would you like us to donate $\$ 1$ to FAIR on your behalf?
- Yes, please donate $\$ 1$ to FAIR on my behalf.
- No, please do not donate $\$$ to FAIR on my behalf.
- We will now present two quotes. For each, we will ask you to report what percentage of Pittsburgh voters you believe would agree with the quote.
- "For European American society and culture to persist requires a European-American majority, and a clear one at that."
- "Both legal and illegal immigration should be drastically reduced because immigrants undermine American culture and do not respect American values."


## C. 3 Experiment 2

## Experiment 2: Trump Won Private

- In another survey, we surveyed participants in an area that Donald Trump won in 2016.
- We will now present two quotes. For each, we will ask you to report what percentage of the voters in the other participant's area you believe would agree with the quote.
"For European American society and culture to persist requires a European-American majority, and a clear one at that."
"Both legal and illegal immigration should be drastically reduced because immigrants undermine American culture and do not respect American values."
- You have been matched with a participant from the previous survey. The other participant saw the question in the next screen. Please read it carefully, since it will affect the amount of your bonus payment.
- The other participant saw the following question:

The organization randomly chosen for you is the Federation for American Immigration Reform (FAIR).

The Federation for American Immigration Reform is an immigration-reduction organization of concerned individuals who believe that immigration laws must be reformed and seeks to reduce overall immigration (both legal and illegal) into the United States. The founder of FAIR is John Tanton, author of "The Immigration Invasion," who wrote: "I've come to the point of view that for European American society and culture to persist requires a European-American majority, and a clear one at that."

The anonymized results from this survey will be posted on our website [later this month]. Results will be reported as percentages only, so your individual response to the survey will remain anonymous. We will notify you when the results become available on our website, [website link]. Would you like us to donate $\$ 1$ to FAIR on your behalf?

- The other participant authorized us to donate $\$ 1$ to FAIR on his behalf.
- You and the other participant will split a total bonus of $\$ 2$. You alone will make the decision of how much of the $\$ 2$ you will receive and how much of the $\$ 2$ the other participant will receive. You can choose to divide the $\$ 2$ however you like, and you get to keep whatever you do not give to the other participant. For example, if you decide to give $\$ 1.30$, then you will receive $\$ 0.70$. Your survey provider will credit this bonus to your account.

How much would you like to give to the other participant? Keep in mind that when making his donation decision, the other participant did not know that he would be playing this follow-up game. Your decision about how much to give the other participant will be completely anonymous.

## Experiment 2: Clinton Won Private

- In another survey, we surveyed participants in an area that Hillary Clinton won in 2016.
- We will now present two quotes. For each, we will ask you to report what percentage of the voters in the other participant's area you believe would agree with the quote.
"For European American society and culture to persist requires a European-American majority, and a clear one at that."
"Both legal and illegal immigration should be drastically reduced because immigrants undermine American culture and do not respect American values."
- You have been matched with a participant from the previous survey. The other participant saw the question in the next screen. Please read it carefully, since it will affect the amount of your bonus payment.
- The other participant saw the following question:

The organization randomly chosen for you is the Federation for American Immigration Reform (FAIR).

The Federation for American Immigration Reform is an immigration-reduction organization of concerned individuals who believe that immigration laws must be reformed and seeks to reduce overall immigration (both legal and illegal) into the United States. The founder of FAIR is John Tanton, author of "The Immigration Invasion," who wrote: "I've come to the point of view that for European American society and culture to persist requires a European-American majority, and a clear one at that."

The anonymized results from this survey will be posted on our website [later this month]. Results will be reported as percentages only, so your individual response to the survey will remain anonymous. We will notify you when the results become available on our website, [website link]. Would you like us to donate $\$ 1$ to FAIR on your behalf?

- The other participant authorized us to donate $\$ 1$ to FAIR on his behalf.
- You and the other participant will split a total bonus of $\$ 2$. You alone will make the decision of how much of the $\$ 2$ you will receive and how much of the $\$ 2$ the other participant will receive. You can choose to divide the $\$ 2$ however you like, and you get to keep whatever you do not give to the other participant. For example, if you decide to give $\$ 1.30$, then you will receive $\$ 0.70$. Your survey provider will credit this bonus to your account.

How much would you like to give to the other participant? Keep in mind that when making his donation decision, the other participant did not know that he would be playing this follow-up game. Your decision about how much to give the other participant will be completely anonymous.

## Experiment 2: Trump Won Public

- In another survey, we surveyed participants in an area that Donald Trump won in 2016.
- We will now present two quotes. For each, we will ask you to report what percentage of the voters in the other participant's area you believe would agree with the quote.
"For European American society and culture to persist requires a European-American majority, and a clear one at that."
"Both legal and illegal immigration should be drastically reduced because immigrants undermine American culture and do not respect American values."
- You have been matched with a participant from the previous survey. The other participant saw the question in the next screen. Please read it carefully, since it will affect the amount of your bonus payment.
- The other participant saw the following question:

The organization randomly chosen for you is the Federation for American Immigration Reform (FAIR).

The Federation for American Immigration Reform is an immigration-reduction organization of concerned individuals who believe that immigration laws must be reformed and seeks to reduce overall immigration (both legal and illegal) into the United States. The founder of FAIR is John Tanton, author of "The Immigration Invasion," who wrote: "I've come to the point of view that for European American society and culture to persist requires a European-American majority, and a clear one at that."

The results from this survey, including your individual donation decision and the donation decisions of all of the [other respondents to this survey from your area], will be posted on our website [later this month]. There is no need to provide your name, email, etc. hear; the survey company we work with has this information already. We will notify you when the results become available on our website, [website link]. Would you like us to donate $\$ 1$ to FAIR on your behalf?

- The other participant authorized us to donate $\$ 1$ to FAIR on his behalf.
- You and the other participant will split a total bonus of $\$ 2$. You alone will make the decision of how much of the $\$ 2$ you will receive and how much of the $\$ 2$ the other participant will receive. You can choose to divide the $\$ 2$ however you like, and you get to keep whatever you do not give to the other participant. For example, if you decide to give $\$ 1.30$, then you will receive $\$ 0.70$. Your survey provider will credit this bonus to your account.

How much would you like to give to the other participant? Keep in mind that when making his donation decision, the other participant did not know that he would be playing this follow-up game. Your decision about how much to give the other participant will be completely anonymous.

## Experiment 2: Clinton Won Public

- In another survey, we surveyed participants in an area that Hillary Clinton won in 2016.
- We will now present two quotes. For each, we will ask you to report what percentage of the voters in the other participant's area you believe would agree with the quote.
"For European American society and culture to persist requires a European-American majority, and a clear one at that."
"Both legal and illegal immigration should be drastically reduced because immigrants undermine American culture and do not respect American values."
- You have been matched with a participant from the previous survey. The other participant saw the question in the next screen. Please read it carefully, since it will affect the amount of your bonus payment.
- The other participant saw the following question:

The organization randomly chosen for you is the Federation for American Immigration Reform (FAIR).

The Federation for American Immigration Reform is an immigration-reduction organization of concerned individuals who believe that immigration laws must be reformed and seeks to reduce overall immigration (both legal and illegal) into the United States. The founder of FAIR is John Tanton, author of "The Immigration Invasion," who wrote: "I've come to the point of view that for European American society and culture to persist requires a European-American majority, and a clear one at that."

The results from this survey, including your individual donation decision and the donation decisions of all of the [other respondents to this survey from your area], will be posted on our website [later this month]. There is no need to provide your name, email, etc. hear; the survey company we work with has this information already. We will notify you when the results become available on our website, [website link]. Would you like us to donate $\$ 1$ to FAIR on your behalf?

- The other participant authorized us to donate $\$ 1$ to FAIR on his behalf.
- You and the other participant will split a total bonus of $\$ 2$. You alone will make the decision of how much of the $\$ 2$ you will receive and how much of the $\$ 2$ the other participant will receive. You can choose to divide the $\$ 2$ however you like, and you get to keep whatever you do not give to the other participant. For example, if you decide to give $\$ 1.30$, then you will receive $\$ 0.70$. Your survey provider will credit this bonus to your account.

How much would you like to give to the other participant? Keep in mind that when making his donation decision, the other participant did not know that he would be playing this follow-up game. Your decision about how much to give the other participant will be completely anonymous.

## D Experiment 1B: Expressing Xenophobia in 2016

We implemented a first version of Experiment 1 in the two weeks before and in the week after the 2016 U.S. presidential election. The timing of the experiment allowed us to exploit the uniqueness of the situation and study the process of information aggregation as it was unfolding. We conducted both waves with workers from the online platform mTurk. The platform draws workers from very diverse backgrounds, though it is not representative of the U.S. population as a whole.

## D. 1 Experimental Design

Wave 1: Intervention Before the Election. During the two weeks prior to the presidential election, we recruited participants $(\mathrm{N}=458)$ from the eight states in which the expected probability of Donald Trump's victory at the state level was $100 \%$, according to the website Predictwise: Alabama, Arkansas, Idaho, Nebraska, Oklahoma, Mississippi, West Virginia, and Wyoming. mTurk workers with at least $80 \%$ approval rate could see our request, which was described as a " 5 minute survey" with a reward of $\$ 0.50$. Each worker could participate in the survey only once. Workers who clicked on the request were displayed detailed instructions about the task, and given access to links to the study information sheet and the actual survey. The survey was conducted on the online platform Qualtrics. ${ }^{1}$

After answering a number of demographic questions, half of the participants were randomly informed about the $100 \%$ local odds from the website (information condition) while the other half were not informed (control condition). Though restricting to these states might affect the external validity of the findings, it also allows us not to worry about the role of heterogeneous priors (and updates) in response to an informational treatment: the $100 \%$ forecast ensured that for this half of the sample, the direction of the update about Trump's local popularity is either zero or positive, but never negative. ${ }^{2}$

Our main goal is to measure the perceived social acceptability of strong anti-immigrant sentiment using a donation experiment with real stakes. Participants were first told that they would be given the opportunity to make a donation to a randomly drawn organization that could either be anti- or pro-immigration, to ensure that participants would not associate the experimenters with

[^0]a specific political view. To maximize power and avoid direct deception, the randomization was such that more than $90 \%$ of participants $(\mathrm{N}=428)$ would get assigned the organization we were interested in: the Federation of American Immigration Reform. ${ }^{3}$ To make sure that the participants were aware of the organization's very strong anti-immigration stance, a few more details about the organization and its founder were provided in the experiment:

The Federation for American Immigration Reform (FAIR) is an immigration-reduction organization of concerned individuals who believe that immigration laws must be reformed, and seeks to reduce overall immigration (both legal and illegal) into the United States. The founder of FAIR is John Tanton, author of 'The Immigration Invasion' who wrote "I've come to the point of view that for European-American society and culture to persist requires a European-American majority, and a clear one at that."

Participants were then asked if they would like to authorize the researchers to donate $\$ 1$ to that organization on their behalf. The money would not come from the subject's $\$ 0.50$ payment for participation in the study. Moreover, the participant would also be paid an extra $\$ 1$ (or about $1 / 6$ of an hourly wage on $m$ Turk) if he authorized the donation. Rejecting the donation would not affect the monetary payoffs to the participant in any way other than through the loss of this extra amount.

In addition to the original randomization of informing subjects about Trump's probability of victory in the participant's state, we introduced a second layer of cross-randomization at the donation stage. Half of the participants were assured that their donation authorization would be kept completely anonymous, and that no one, not even the researchers would be able to match their decision to their name: we refer to this condition as the private condition. Specifically, participants were told:

Note: just like any other answer to this survey, also your donation decision will be completely anonymous. No one, not even the researchers, will be able to match your decision to your name.

The other half of the subjects were instead informed, right before the donation question was displayed to them, that they might be personally contacted by the research team to verify their answers to the questions in the remaining part of the survey: this is what we refer to as the public condition.

Important: in order to ensure the quality of the data collected, a member of the research team might personally contact you to verify your answers to the next question and the following ones.

[^1]Names and contact information were not collected during the intervention, since the practice is not allowed on mTurk. As a result, it was not possible to credibly lead participants to believe that their decision would be observed by other individuals, for example, from their state. However, on $m$ Turk it is possible to contact participants individually on the platform via their worker ID. We were therefore able to minimize deception since the decision was anonymous yet researchers could still potentially contact participants (moreover, participants in the public condition might have believed that they would be asked for personal information in case they were contacted later on).

Wave 2: Intervention After the Election. We exploited the natural experiment of Trump's unexpected victory as an alternative "treatment" that could lead to an increase in the social acceptability of holding xenophobic views. We repeated the experimental intervention in the same states during the first week after the election, restricting the design to the control condition with no additional initial information on Trump's popularity. We analyze the behavior of subjects who were part of our sample before the election ( $\mathrm{N}=168 ; 166$ of them assigned to the anti-immigration organization). Based on naturally occurring variation, we can assess the impact of Trump's electoral victory on the perceived social acceptability of xenophobia.

## D. 2 Results

The first four bars of Figure D1 display our main findings from the pre-election experiment. In the control condition before the election, we observe a large and statistically significant wedge between donation rates in private and in public: a drop from $54 \%$ in private to $34 \%$ in public (the p-value of a $t$ test of equality is 0.002 ). Among individuals in the information condition, we observe no difference in private and public donation rates, which are $47 \%$ and $46 \%$, respectively ( $p$-value $=0.838$ ). Moreover, we find no significant difference in private donation rates between the information and control conditions ( $p$-value $=0.281$ ), suggesting that the information is not increasing privately-held xenophobia. The increase in public donation rates between the two conditions is statistically significant ( $p$-value $=0.089$ ), as is the difference in differences between donation rates in private across conditions and donation rates in public across conditions ( $p$-value $=0.050$ ). These results indicate that the information provided causally increased the social acceptability of the action to the point of eliminating the original social stigma associated with it. ${ }^{4}$

As an additional way of examining the effect of Trump's increased popularity on public expression of xenophobia, we compare the private and public donation rates in the control condition

[^2]before and after the election. In the last two bars of Figure D1, we analyze the actions of respondents who participated in both waves of the experiment. In private, we again observe no increase in donation rates ( $54 \%$ before the election and $49 \%$ after the election, $p$-value= 0.436 ). In public, we observe a significant increase from $34 \%$ before the election to $48 \%$ after it ( $p$-value= $=0.060$ ). The difference in differences between donation rates in private before and after the election and donation rates in public before and after the election in the control condition is also statistically significant ( $p$-value $=0.062$ ). It is worth emphasizing that the donation rates following the two different "treatments" (either experimental or natural) are extremely similar: $47 \%$ vs. $49 \%$ in private, and $46 \%$ vs. $48 \%$ in public.

Figure D1: Experiment 1B: Donation Rates Before and After the Election


Notes: the two bars on the left display donation rates to the anti-immigration organization for individuals in the private and public conditions in the control group before the election (full sample, respectively $\mathrm{N}=112$ and $\mathrm{N}=111$ ), the two central bars display those in the information group before the election (full sample, respectively $\mathrm{N}=102$ and $\mathrm{N}=103$ ), and the last two bars display those in the control group after the election (for individuals already surveyed before the election, respectively N=82 and N=84). Error bars reflect $95 \%$ confidence intervals. Top horizontal bars show $p$-values for $t$ tests of equality of means between different experimental conditions.

## E Experiment 2B: Dictator Game with Swiss Player

## E. 1 Experimental Design

Wave 1: Non-Anonymous Behavior by the Swiss Player In late February 2017, we recruited participants from the six states in which Hillary Clinton won the presidential election with the highest margin: California, Hawaii, Maryland, Massachusetts, New York, and Vermont. This was done to maximize the chances of recruiting subjects with liberal views, and in particular subjects with no anti-Muslim sentiment. ${ }^{5}$

First, after answering a number of demographic questions, all participants were told that a minaret is a tower typically built adjacent to a mosque and traditionally used for the Muslim call to prayer. Second, they were asked whether they would support the introduction of a law prohibiting the building of minarets in their state. Following our pre-registration, we focus on subjects who reported to be against the introduction of this law ( $\mathrm{N}=396$ ), and we examine how they would interact with a person who has opposite views. ${ }^{6}$ In order to do so, in the third part of the survey, participants were told that they were matched with a subject from another survey and were asked to play a dictator game in which they could decide how to split $\$ 3$ (half of an hourly wage on the platform) between themselves and the other participant. We randomly assigned our participants to three different groups and randomized the background information we gave to our participants about the person they were matched with. Participants in the control group were only told that the participant they were matched with was a 24 -year-old male from Switzerland. Note that we used real 24-year-old male subjects from Switzerland recruited to take part in a short survey by a research assistant from the University of Zurich.

Participants in the anti-minarets group were additionally told that this person supports the prohibition of the building of minarets in Switzerland. Participants in the anti-minarets, public support group were instead told that "like $57.5 \%$ of Swiss respondents, the participant supports the prohibition of the building of minarets in Switzerland."

Wave 2: Anonymous Behavior by the Swiss Player If we find higher donations in the anti-minarets, public support group, when compared to the anti-minarets one, we can conclude that the participants may believe that the Swiss person has strategic reasons to state that he is anti-minarets, and for this reason judge him less for expressing that view. However, a potential

[^3]alternative interpretation of this result would be that participants might judge the Swiss person less negatively when a majority of Swiss people support the ban, regardless of whether his support was expressed in public. For example, it could be that participants feel that they cannot blame a person for privately holding a view if that person is surrounded by many other people who also hold that view and who could have influenced this person's convictions. With similar implications, participants might change their own opinion about minarets after learning that a majority of Swiss people are against them, and for this reason start judging the Swiss participant less negatively for privately holding these same views.

To explicitly rule out these possibilities, in the days immediately following wave 1 , we conducted an experiment with a slightly modified version of the protocol. In this second wave, participants were informed about the fact that the 24 -year-old male from Switzerland expressed his opinion in an anonymous survey. To make sure we could hire enough respondents, in this wave we recruited participants from the twelve states in which Hillary Clinton won the presidential election with the highest margin (California, Hawaii, Maryland, Massachusetts, New York, and Vermont as in wave 1, plus Connecticut, Delaware, Illinois, New Jersey, Rhode Island, and Washington). ${ }^{7}$

The design of this experiment was almost identical to the original version. Once again, we focus on subjects who reported to be against the introduction of the ban $(\mathrm{N}=427) .{ }^{8}$ The main difference with the original version is that we emphasized that the Swiss participant expressed his opinion anonymously. Both in the control and in the treatment conditions, instead of writing, as before, that "we matched you with a participant from another survey," in this version we wrote "we matched you with a participant from another anonymous survey." In our treatment groups we emphasized once again that the survey the Swiss person participated in was anonymous: "In our anonymous survey, like the one you just completed, he said he supports the prohibition of the building of minarets in Switzerland." We call this first treatment group the anonymous anti-minarets group. Finally, instead of writing "like $57.5 \%$ of Swiss respondents, the participant supports the prohibition of the building of minarets in Switzerland," in this case we wrote "According to numbers from 2009, $57.5 \%$ of Swiss respondents are in favor of prohibiting the building of minarets." We call this second treatment group the anonymous anti-minarets, public support group. ${ }^{9}$

[^4]
## E.1.1 Beliefs about the Swiss Ban

At the end of the intervention, subjects in the control group were also asked about their beliefs regarding the share of the Swiss who supported banning the construction of minarets, and whether they believed the ban is legal in Switzerland. In the first wave we did not collect this information for individuals in the anti-minarets and anti-minarets public support groups. To check whether their beliefs about the share of the Swiss population supporting the ban are changed by the treatments, we included these questions for both the control group and the treatment groups in the second wave. The share of those thinking that a majority of the Swiss support the ban is almost identical in the control group and the anti-minarets group (respectively $20 \%$ and $25 \%$, with a $p$-value for the test of equality of 0.301 ), but increases to $63 \%$ in the anonymous anti-minarets public support group ( $p$-values of the test of equality are less than 0.001 for either groups). The median belief about the share of the Swiss population supporting the ban is $30 \%$ in both control and anonymous anti-minarets groups, and $55 \%$ in the anonymous anti-minarets public support group. This confirms that our experimental manipulation indeed shifted beliefs about the level of popular support for the ban in Switzerland. ${ }^{10}$

Participants across conditions were also asked whether they believed the construction of minarets is legal in Switzerland: in all three groups, a majority reported to think that constructing minarets was legal ( $88 \%$ in the control group, $77 \%$ in the anti-minarets group, and $74 \%$ in the anti-minarets public support group). ${ }^{11}$ We can thus rule out that the effects are affected by the fact that the ban is enacted as law, and can thus isolate the role of pandering to the public opinion on participants' judgment of the Swiss player.

## E. 2 Results

Figure E1 displays the main findings from Experiment 2B. Panel A displays comparisons of average donations across groups. In the control condition, where participants were only told that they are matched with a 24 -year-old male from Switzerland, we observe an average transfer to the

[^5]Swiss participant of $\$ 1.03$. The average transfer is substantially lower for subjects in the antiminarets group, who are also told that this person supports the prohibition on building minarets in Switzerland: the average transfer for this group is $\$ 0.69$. The effect of informing subject about the anti-Muslim views of the Swiss participant is statistically significant ( $p$-value $<0.001$ ). However, the average transfer among subjects in the anti-minarets, public support group who are told that the majority of Swiss respondents are against minarets is $\$ 0.92$, which is not statistically different from the average transfer in the control group (the $p$-value of the difference is 0.159 ) but is substantially higher than the average transfer in the anti-minarets group ( $p$-value $=0.013$ ). The average donation in the anonymous anti-minarets group is identical to that in the anti-minarets group, at $\$ 0.69$. The average donation in the anonymous anti-minarets, public support group is also very similar: $\$ 0.70$. These two levels are significantly different from the average in the control group ( $p$-value $<0.001$ in both cases). The average donation in the anonymous anti-minarets, public support group is also significantly lower than the one in the first wave version of the treatment ( $p$-value $=0.015$ ).

Panel B compares the share of participants who do not share anything from their $\$ 3$ endowment with the Swiss person. The percentage of participants deciding not to transfer anything to the Swiss respondent increases from $23 \%$ in the control group to $42 \%$ in the anti-minarets group ( $p$ value $<0.001$ ), while only $27 \%$ of subjects in the anti-minarets, public support decide to keep all $\$ 3$. This percentage is not statistically different from the one in the control group ( $p$-value $=0.370$ ), but is substantially lower than the one for subjects in the anti-minarets group ( $p$-value=0.013). Here again, the levels of the outcome variable in the two anonymous treatments are almost identical to the level in the anti-minarets group: $43 \%$ and $44 \%$. Importantly, the share of participants not donating is significantly higher in the anonymous anti-minarets, public support group when compared to the non-anonymous version of the treatment ( $p$-value $=0.004$ ).

Figure E1: Experiment 2B: Donation Rates


Notes: Panel A displays average donation amounts to the Swiss individual in the five experimental conditions: the control group ( $\mathrm{N}=279$, pooling 142 observations from the first version of Experiment 2B and 137 observations from the second anonymous version of Experiment 2B), the anti-minarets group ( $\mathrm{N}=123$ ), and the anti-minarets public support group ( $\mathrm{N}=131$ ), the anonymous anti-minarets group ( $\mathrm{N}=149$ ), and the anonymous antiminarets public support group ( $\mathrm{N}=141$ ). Panel B displays the percent of subjects not making positive donations. Error bars reflect $95 \%$ confidence intervals. Top horizontal bars show $p$-values for $t$ tests of equality of means between different experimental conditions.

## F Experiment 3: Expressing Islamophobia

## F. 1 Experimental Design

The design of Experiment 3 is very similar to Experiment 1: it uses donation decisions made either in a private or in a public condition to study the social acceptability of a view. The main difference with respect to Experiment 1 is that instead of varying the perceived local popularity of candidate Trump, we directly randomize the perceived local popularity of anti-Muslim sentiments. This allows us to test whether the effects documented in Experiment 1 are related to updates in the popularity of anti-immigration sentiments, or if instead the updates in the popularity of Donald Trump affect donation decisions through some other mechanism. Moreover, we also focus on the role of the legitimacy of a view in determining its social acceptability. One might also be concerned that, in Experiment 1B, participants might expect xenophobic policies to be institutionalized under Donald Trump's administration (and believe that such expectation is also shared by the surveyors). Such institutionalization/legitimacy could potentially increase the social acceptability of xenophobia. For this purpose, we include a treatment in which we inform subjects about the fact that a certain policy is unconstitutional.

Given our previous findings that the wedge between private and public donations to the Federation for American Immigration Reform had disappeared after the presidential election in the six originally studied states (and our overall concern that the social acceptability of xenophobia had increased in the country as a whole), we made three additional changes to the protocol in Experiment 1B: we expanded the set of states in our recruitment of participants, referred to stronger xenophobic (here, Islamophobic) language, and included an organization with relatively more extreme views. ${ }^{12}$

Specifically, in early February 2017, we recruited participants $(N=574)$ from all the states in which Donald Trump won the presidential election. MTurk workers with at least $80 \%$ approval rate could see our request, which was described as a " 5 minute survey" with a reward of $\$ 0.50$. Each worker could participate in the survey only once. Workers who clicked on the request were displayed detailed instructions about the task, and given access to links to the study information sheet and the actual survey. The survey was conducted on the online platform Qualtrics.

After answering a number of demographic questions, a third of the participants were randomly informed about the fact that a large share of respondents of an anonymous online survey supported the ban of Muslims from public office (public support information condition): ${ }^{13}$
"In a recent anonymous survey we conducted online, we found that a very large

[^6]proportion of respondents think that Muslims should be prohibited from holding public office. This suggests that there is popular support for this type of ban." ${ }^{14}$

Another third were additionally informed about the fact that such a ban is unconstitutional and that Donald Trump would not be able to enact it (unconstitutionality information condition):
"Regardless of popular support, prohibiting Muslims from holding public office is unconstitutional and will not be enacted. The 5th and 14th Amendments imply that state and federal governments cannot discriminate against employees or job applicants on religious grounds. This means that President Donald Trump will not enact this type of ban."

The remaining third were not given any information (control condition).
Participants were then asked to predict the share of individuals who would they think would say in an anonymous online survey that they think Muslims should be prohibited from holding public office. This provides a measure of the perceived popularity of anti-Muslim policies.

In the next part of the intervention, we measured the perceived social acceptability of expressing strong anti-Muslim sentiment using a donation experiment with real stakes. Participants were first told that they would be given the opportunity to make a donation to a randomly drawn organization that could either be anti-Muslim or pro-immigration, to ensure that participants would not associate the experimenters with a specific political view. To maximize power and avoid direct deception, the randomization was such that more than $99 \%$ of participants ( $\mathrm{N}=573$ ) would get assigned the organization we were interested in: ACT for America. ${ }^{15}$ To make sure that the participants were aware of the organization's very strong anti-immigration stance, a few more details about the organization and its founder were provided in the experiment:

ACT for America is the largest grassroots anti-Muslim organization in the U.S actively working to promote anti-Muslim legislation and opinion. The founder of ACT for America is Brigitte Gabriel, the author of a book titled 'They Must Be Stopped' and who argued that Muslims should be prohibited from holding public office because "a practicing Muslim, who believes in the teachings of the Koran, cannot be a loyal citizen of the United States." ACT for America believes that Muslims represent a threat to both national security and American values; its Thin Blue Line project comprehensively mapped the addresses of U.S. Muslim student associations and other Islamic institutions as sites of national security concern.

[^7]Participants were then asked if they would like to authorize the researchers to donate $\$ 1$ to that organization on their behalf. The money would not come from the subject's $\$ 0.50$ payment for participation in the study. Moreover, the participant would also be paid an extra $\$ 1$ (or about $1 / 6$ of an hourly wage on MTurk) if he/she authorized the donation. Rejecting the donation would not affect the monetary payoffs to the participants in any way other than through the loss of this extra amount.

In addition to the original randomization of informing subjects about the popularity and unconstitutionality of the ban, we introduced a second layer of cross-randomization at the donation stage. Half of the participants were assured that their donation authorization would be kept completely anonymous, and that no one, not even the researchers would be able to match their decision to their name: we refer to this condition as the private condition. The other half of the subjects were instead informed, right before the donation question was displayed to them, that they might be personally contacted by the research team to verify their answers to the questions in the remaining part of the survey: this is what we refer to as the public condition.

## F. 2 Results

Appendix Figure F1 displays the main findings from Experiment 3. In the control condition, we observe, like in Experiment 1, a wedge between donation rates in private and in public: a drop from $41 \%$ in private to $29 \%$ in public (the $p$-value of a $t$ test of equality is 0.100 ). Among individuals in the public support information condition, we observe no difference in private and public donation rates, which are $35 \%$ and $37 \%$, respectively ( $p$-value $=0.757$ ). These results are very similar to the results in Experiment 1 (although we use different population, organization, and treatment), and indicate that the information provided on the popularity of anti-Muslim sentiments causally increased the social acceptability of the action to the point of eliminating the original social stigma associated with it. Among individuals in the unconstitutionality information condition, we again observe no difference in private donation rates, which are $29 \%$ and $30 \%$ respectively ( $p$-value $=0.795$ ).

However, we find a difference in private donation rates between the unconstitutionality information and control conditions ( $p$-value $=0.083$ ), suggesting that the information is possibly decreasing privately-held support for the Islamophobic policy.

Both information conditions positively update average beliefs about the popularity of the antiMuslim policy when compared to the control group. In the control group, the average guess was that $45 \%$ of respondents of an online anonymous survey would support the anti-Muslim policy. The average went up to $48 \%$ in the unconstitutionality information condition ( $p$-value $=0.183$ against the control group) and to $52 \%$ in popular support information condition ( $p$-value $=0.004$ when compared to the control group). This is consistent with subjects informed about the unconstitutionality of banning Muslims from public office also reducing their beliefs about the popularity of the policy.

Taken together, these results suggest that the positive update in the perceived popularity of
the Islamophobic policy reduces the wedge in private vs public donations and confirms that the channel of legality/institutionalization or other channels related to the popularity of Donald Trump but not to the popularity of xenophobic sentiments are not the main drivers of our findings.

Figure F1: Experiment 3: Donation Rates


Notes: the two bars on the left display donation rates to the anti-Muslim organization for individuals in the private and public conditions in the control group (respectively $\mathrm{N}=91$ and $\mathrm{N}=96$ ), the two central bars display those in the public support information group (respectively $\mathrm{N}=98$ and $\mathrm{N}=95$ ), and the last two bars display those in the unconstitutionality information group (respectively $\mathrm{N}=101$ and $\mathrm{N}=92$ ). Error bars reflect $95 \%$ confidence intervals. Top horizontal bars show $p$-values for $t$ tests of equality of means between different experimental conditions.


[^0]:    ${ }^{1}$ The experiment can be found in the AEA RCT Registry (AEARCTR-0001752). The reader can access the survey information sheet and interactively follow the survey at http://ssd.az1.qualtrics.com/jfe/form/SV_ OUhwmq3Icp7XSa9 (accessed on 07/06/2020).
    ${ }^{2}$ In the information condition, before being given the information about the $100 \%$ local odds from the website, respondents were asked about their beliefs on the probability of Trump winning the election in their state. This question was asked to respondents in the control condition only at the end of the survey instead. Eliciting priors in the control group to assess the direction of the update would have been challenging since the forecast information was available online. Therefore, asking the question before the donation decision could have undone the treatment. Answers to the question if asked after the donation decision could have been affected by the decision itself and by the private/public condition later assigned to the participant. For analogous reasons, the control condition did not include a placebo statement about Trump, since this could have primed participants to think about his chances of winning the election in the next couple of weeks.

[^1]:    ${ }^{3}$ The pro-immigration organization was the National Immigration Forum. Of course, it is still possible that to some degree the participants assigned to the Federation of American Immigration Reform were more likely to associate the researcher with anti-immigration views than those assigned to the pro-immigration organization.

[^2]:    ${ }^{4}$ Apart from social stigma, another possible reason for the lower donation rates in the public condition with respect to the private condition is that participants might want to avoid talking with the surveyor because of the extra effort and time this requires (independently of the topic of the conversation), and they might expect the likelihood of having to talk to be higher in case they decide to make the donation. However, this mechanism should operate both in the control and in the treatment conditions, thus not affecting our identification of the reduction in social stigma.

[^3]:    ${ }^{5}$ As in Experiment 1B, MTurk workers with at least $80 \%$ approval rate could see our request, which in this case was described as a " $4-5$ minutes short survey" with a reward of $\$ 0.50$. Each worker could participate in the survey only once. Workers who clicked on the request were displayed detailed instructions about the task, and given access to links to the study information sheet and the actual survey. The survey was conducted on the online platform Qualtrics. The experiment can be found in the AEA RCT Registry (AEARCTR-0002028). The reader can access the survey information sheet and interactively follow the survey at http://ssd.az1.qualtrics.com/jfe/form/SV_ 8CVUQyyMcdITPHD (accessed on 07/06/2020).
    ${ }^{6}$ Subjects who instead supported the law $(\mathrm{N}=152)$ did not participate in the third part of the survey.

[^4]:    ${ }^{7}$ As in the other experiments, MTurk workers with at least $80 \%$ approval rate could see our request, which in this case was described as a " $4-5$ minutes short survey" with a reward of $\$ 0.50$. Each worker could participate in the survey only once, and only if he/she did not participate in our other experiment. Workers who clicked on the request were displayed detailed instructions about the task, and given access to links to the study information sheet and the actual survey. The survey was conducted on the online platform Qualtrics. The reader can access the survey information sheet and interactively follow the survey at http://ssd.az1.qualtrics.com/jfe/form/SV_ 1S50ypQLiIhlsPj (accessed on 07/06/2020).
    ${ }^{8}$ Subjects who instead supported the law $(\mathrm{N}=138)$ did not participate in the third part of the survey.
    ${ }^{9}$ Our design also included a fourth group ( $\mathrm{N}=136$ in wave 1, and $\mathrm{N}=139$ in wave 2), where participants were instead told: "Building minarets is illegal in Switzerland, following a 2009 referendum. Like $57.5 \%$ of Swiss respondents, the participant supports the prohibition of the building of minarets in Switzerland. However, he did not vote in the referendum since he was under legal voting age" in wave 1, and "In our anonymous survey, like the one you just completed, he said he supports the prohibition of the building of minarets in Switzerland. Building minarets is

[^5]:    illegal in Switzerland, following a 2009 referendum. According to numbers from 2009, $57.5 \%$ of Swiss respondents are in favor of prohibiting the building of minarets. However, the person you are matched with did not vote in the referendum since he was under legal voting age" in wave 2 . This anti-minarets, referendum treatment was intended to test whether providing information a view that is not only held by a majority but is also official would further change the donation rates. We found no effect of this additional treatment relative to the second treatment group, neither in the original version nor in the anonymous version of Experiment 2 B , suggesting that institutionalization/legitimacy also does not seem to play a role on the receiver's side.
    ${ }^{10}$ Here we report the numbers from the second wave of the experiment, since the first wave only asked beliefs for the control group. The numbers for this group are very similar across waves. In the first wave, $17 \%$ of control group participants believe a majority of Swiss people support the ban, compared to $20 \%$ in the second wave. The median belief is $30 \%$ for the control groups in both waves.
    ${ }^{11}$ While the beliefs are significantly different when comparing the control group with either of the two treatment groups (the $p$-values for the test of equality are 0.013 against the anonymous anti-minarets group and 0.002 against the anonymous anti-minarets public support group), there is no statistical difference between the two treatment groups (the $p$-value for the test of equality is 0.500 ).

[^6]:    ${ }^{12}$ The experiment can be found in the AEA RCT Registry (AEARCTR-0001994). The reader can access the survey information sheet and interactively follow the survey at http://ssd.az1.qualtrics.com/jfe/form/SV_ beWUpftLZi3zW5f (accessed on 07/06/2020).
    ${ }^{13}$ We used information from a previous anonymous survey we conducted on MTurk $(\mathrm{N}=96)$ in which $42 \%$ of the respondents expressed support for that ban: to participate MTurk workers had to have an approval rate of at least $80 \%$ and to identify themselves as conservatives.

[^7]:    ${ }^{14}$ To avoid deception, we used the vague expression "very large proportion," which does not imply that a majority of respondents held that position.
    ${ }^{15}$ The pro-immigration organization was once again the National Immigration Forum.

