Abstract

This paper investigates the relationship between national identification and social welfare. Society is a direct democracy where representative rich and poor agents vote on their most preferred tax rate. Utilizing the economics of identity, agent utility not only depends on income but also on social identification. We show that national identification increases agent utility and social welfare when the rich implements the most preferred tax rate of the poor, who is also the median voter. Furthermore, using respondent level of happiness as a proxy for social welfare, we show that national pride has a positive impact on welfare through logit regression analysis.

Keywords

National Identity, Social Welfare, Taxation, Democracy

1. Introduction

Nationalism has acquired a bad rap in recent times. Some consider it a main source of xenophobia, while others see it as a tool used by majority cultures to forcibly assimilate minority ones in the name of nation-building [1]. To make matters worse, nationalism is also the cornerstone of extreme ideologies such as Nazism and Fascism, both of which played an unrefutable role in initiating WW2.

Nonetheless, nationalism has its redeeming qualities. As an instance, national identity has aided states in overcoming colonialism and helped modernize the state [2]. Furthermore, recent works in social psychology have shown that national pride and national identification positively impact subjective well-being of individuals such as happiness and life satisfaction [3] [4].

This paper shows theoretically that national pride raises social welfare, which contributes to the literature where nationalism benefits society. We do so by uti-
lizing the economics of identity where agents not only derive utility from ma-
terial payoff, but from social identification as well. We support our results em-
pirically through logit regression analysis, and show that national pride is posi-
tively correlated with happiness, which we proxy for welfare.

This paper is organized in the following manner. First, we discuss the theore-
tical model, which is an application of the economics of identity of Akerlof and
Kranton [5] on the theory of political transitions by Acemoglu and Robinson
(2006), to demonstrate that increasing national identity increases social welfare.
Second, we will discuss the empirical analysis, which uses logit regression analy-
sis to support the theoretical result. Finally, we conclude the paper with a short
discussion.

2. Model

The nation is a direct democracy with rich (r) and poor agents (p) where agents
vote for their most preferred tax rate. Members in each social class are identical
and the proportion of rich and poor agents are \( \delta \) and \( 1 - \delta \), while the income
of each rich and poor agent is \( y_r \) and \( y_p \). We assume the rich is the minority
(\( \delta < 1/2 \)) and the rich’s income exceeds the poor’s (\( y_r > y_p \)). Let the nation’s
average income be \( \bar{y} \), then \( y_p < \bar{y} < y_r \). If society implements flat tax \( \tau \), the
posttax income of agent \( i \in \{ p, r \} \) is

\[
\pi_i(\tau) = (1 - \tau)y_i + \left( \tau - \frac{\tau^2}{2} \right) \bar{y}
\]

(1)

where \( \left( \tau^2/2 \right) \bar{y} \) is the quadratic deadweight lost following Bolton and Roland
[6]. Note the average post-taxation income of the nation is

\[
\bar{y}(\tau) = \left( 1 - \frac{\tau^2}{2} \right) \bar{y}
\]

(2)

To model national identity, we apply the economics of identity [5]. According
to identity economics, individuals not only derive utility from economic payoff,
but also from social identification. This concept is grounded on social psychology,
which theorizes that individuals derive emotional and value significance
from social group membership [7]. Similar to Shayo [8] and Sambanis and
Shayo [9], the utility of agent \( i \in \{ p, r \} \) is defined as

\[
U_i(\tau) = \pi_i + \sigma \left[ s + \bar{y}(\tau) \right] - wd
\]

(3)

where \( \sigma \in [0,1] \) is agent “pride” from national attributes that provide positive
utility, such as \( s > 0 \), which is exogenous and summarizes non-material dimen-
sions impacting the nation and \( \pi(\tau) \) representing national economic strength.
The coefficient \( w \in [0,1] \) is the level of “shame” agents suffer from perceived
negative national attributes \( d > 0 \), which is determined exogenously. We re-
strict \( \sigma + w = 1 \), hence a rise in national pride \( \sigma \) causes shame \( w \) to fall.

Substituting (1) and (2) into (3) and noting that \( w = 1 - \sigma \), the utility of a poor agent is
The poor’s most preferred tax rate is defined as the tax rate that maximizes the poor’s post-tax utility in (4). Since \( \bar{y} > y_p \), the first order condition of the poor’s utility with respect to \( \tau \) is
\[
0 = \frac{\bar{y} - y_p}{(1 + \sigma) \bar{y}} > 0
\]
which is decreasing in \( \sigma \) since
\[
\frac{d\tau_p}{d\sigma} = -\frac{\bar{y} - y_p}{(1 + \sigma)^2 \bar{y}} < 0
\]
Note that this outcome is identical to that in Shayo [8]. For the rich, the utility is
\[
U_r(\tau) = (1 - \tau) y_r + \left( \tau - \frac{\tau^2}{2} \right) \bar{y} + \sigma \left[ s + \left( 1 - \frac{\tau^2}{2} \right) \bar{y} \right] - (1 - \sigma) d
\]
and since \( y_r > \bar{y} \), the first order condition of this utility with respect to \( \tau \) is
\[
\frac{dU_r(\tau)}{d\tau} = -(y_r - \bar{y}) - (1 + \sigma) \tau \bar{y} < 0
\]
Hence, the most preferred tax rate of the rich is \( \tau_r = 0 \) and we state the equilibrium below, which says that society implements \( \tau_p \).

**Proposition 1** A direct democracy with identical poor and identical rich agents with most preferred tax rates \( \tau_p \) and \( \tau_r \) will implement \( \tau_p \) if the poor is the majority.

**Proof:** Since the poor is the majority and all poor agents are identical, the median voter is a poor agent. As only two policy choices \( \tau_p \) and \( \tau_r \) exist, the median voter theorem stipulates that society implements the most preferred tax rate of the poor.

We now define a social welfare function in the following to investigate the impact national identification on social welfare.
\[
W(\tau) = \delta U_r(\tau) + (1 - \delta) U_p(\tau)
\]
The following proposition demonstrates the main result of this paper, which shows that when \( \tau = \tau_p \), welfare in a direct democracy is increasing in national identification.

**Proposition 2** \( W(\tau_p) \) increases in national pride \( \sigma \).

**Proof:** By the chain rule
\[
\frac{dU_r(\tau_p)}{d\sigma} = \frac{\partial U_r(\tau_p)}{\partial \tau} \frac{d\tau_p}{d\sigma} + \frac{\partial U_r(\tau_p)}{\partial \sigma}
\]
Since the first order condition of (4) implies that \( \frac{\partial U_p(\tau_p)}{\partial \tau} = 0 \) and because \( \frac{\partial U_p(\tau_p)}{\partial \sigma} = s + \left( 1 - \frac{\tau_p^2}{2} \right) \bar{y} + d \),
\[
\frac{dU_p(\tau_p)}{d\sigma} = s + \left( 1 - \frac{\tau_p^2}{2} \right) \bar{y} + d > 0
\]
For the rich
\[ \frac{dU_r(\tau_p)}{d\sigma} > 0 \quad (11) \]
as \[ d\tau_p/d\sigma < 0 \quad \text{in (6)}, \quad \partial U_r/\partial \tau < 0 \quad \text{in (8)} \]
and \[ \partial U_r(\tau_p)/\partial \sigma = s + (1 - \tau_p^2/2)\bar{y} + d > 0. \]
Hence
\[ \frac{dW(\tau_p)}{d\sigma} = (1 - \delta)\frac{dU_r(\tau_p)}{d\sigma} + \delta \frac{dU_r(\tau_p)}{d\sigma} > 0. \]

3. Empirical Analysis

We demonstrate empirically that national pride positively impacts welfare. Works such as Frey and Stutzer [10] and Frey [11] indicate that subjective well-being (e.g. level of happiness or life satisfaction) is a satisfactory approximation of utility. As scholars often measure welfare using utility, we therefore proxy welfare using respondent happiness. We use integrated data from the European Value Survey (EVS) for 1981, 1990, 1999 and 2008, which is a comprehensive dataset that contains information on interviews conducted with respondents from 48 countries (mainly European), on opinions, beliefs, ideas, stated preferences, attitudes, and values related to family and work issues as well notions about religion, politics, as well as society. We estimate the following using logit regression analysis:

\[ \text{Happiness}_{it} = \beta_{0} + \beta_{1}\text{National Pride}_{it} + \beta_{2}\text{Personal Characteristics}_{it} + \beta_{3}\text{Macro Controls}_{it} + \text{Country}_{c} + \text{Year}_{t} + e_{it}. \]

The dependent variable Happiness$_{it}$ is a dummy variable that measures the level of happiness of individual $i$ who resides in country $c$ in period $t$. For this variable, we use the EVS question “taking all things together how happy are you?” Responses are from a scale of 1 to 4 (“very happy”, “quite happy”, “not very happy”, “not at all happy”). We create a happiness dummy such that “quite happy” and “very happy” are coded 1, and other responses are coded 0. The main independent variable National Pride$_{it}$ gauges how proud individuals are of their nation. For this variable, we use the EVS question “How proud are you to be [e.g., French]?” where individuals answer on a scale of 1 to 4 (“very proud,” “quite proud,” “not very proud,” and “not at all proud”).

The vector Personal Characteristics$_{it}$ includes respondents’ income level (low, medium, high), age, gender, employment status (“full time”, “Part time”, “self-employed”, “retired”, “housewife”, “student”, “Unemployed”, “Other”), marital status (“single”, “married”, “divorced”, “separated”, “widowed”). We also include the age when respondents completed formal schooling (“below fifteen”, “fifteen to seventeen”, “above seventeen”), respondent’s number of child-

\[ ^{1}\text{For list of countries refer to Appendix.} \]

\[ ^{2}\text{The analysis on national pride and happiness is similar to Ha and Jang [4], though we use logit instead of ordered probit.} \]
ren ("no child", "one child", "two children", "three and more"), and a dummy on whether respondents is religious ("a religious person", "not a religious person" and "a convinced atheist"). Macro Controls, refers to a set of country-level variables, which are real GDP per capita from the Expanded Trade and GDP database by Kristian Gleditsch, gini index from The Standardized World Income Inequality Database (SWIID), as well as unemployment and inflation rates using data from the World Bank.

Country dummies are present to account for country-specific traits and year dummies are present to capture any common shocks among countries. The error term is \( \epsilon_{ict} \), which captures all omitted factors with \( E(\epsilon_{ict}) = 0 \) for all \( i, c \) and \( t \). All standard errors are fully robust to arbitrary heteroskedasticity and are clustered by country to account for serial correlation at the country level. The summary statistics not shown here is in the online Appendix.

Table 1 demonstrates that national pride is positively correlated with levels of happiness reported by respondents in democracies with scores of 9 or 10 in the Polity index, which represent highly democratic nations. Each column contains personal characteristics and macroeconomic controls described above, as well as country and year dummies.

Column 1 restricts the analysis to low income members of society and demonstrates that compared to individuals who are “not at all proud of the nation” (base case), respondents that are “not very proud of the nation” are 22.3% more likely to be happy, while individuals who are “quite proud of the nation” and “very proud of the nation” are 121% and 185% more likely to be happy. When the analysis includes both low and medium income groups in Column 2, and just the high income group in Column 3, results are similar to that in Column 1.

Table 1. Impact of national pride on happiness.

<table>
<thead>
<tr>
<th>Dependent Variable: Level of Happiness</th>
<th>Low Income Group</th>
<th>Low &amp; Medium All Income Group</th>
<th>High Income Group</th>
<th>All Income Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>Not very proud of nation</td>
<td>1.214*</td>
<td>1.203**</td>
<td>1.390*</td>
<td>1.249*</td>
</tr>
<tr>
<td></td>
<td>(0.139)</td>
<td>(0.099)</td>
<td>(0.267)</td>
<td>(2.221)</td>
</tr>
<tr>
<td>Quite proud of nation</td>
<td>2.188***</td>
<td>2.155***</td>
<td>2.452***</td>
<td>2.221***</td>
</tr>
<tr>
<td></td>
<td>(0.214)</td>
<td>(0.167)</td>
<td>(0.433)</td>
<td>(0.201)</td>
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<tr>
<td>Very proud of nation</td>
<td>2.822***</td>
<td>2.736***</td>
<td>2.776***</td>
<td>2.760***</td>
</tr>
<tr>
<td></td>
<td>(0.299)</td>
<td>(0.237)</td>
<td>(0.495)</td>
<td>(0.258)</td>
</tr>
<tr>
<td>Countries</td>
<td>33</td>
<td>33</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>Observations</td>
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<td>48790</td>
<td>21248</td>
<td>70038</td>
</tr>
<tr>
<td>Personal characteristics</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Macroeconomic controls</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Pseudo ( R^2 )</td>
<td>0.14</td>
<td>0.15</td>
<td>0.12</td>
<td>0.16</td>
</tr>
</tbody>
</table>

\( * p < 0.1; \* p < 0.05; \** p < 0.01; \*** p < 0.001. \)
For all three income groups in Column 4, individuals that are “not very proud of nation” are 25% more likely to report happiness, while respondents that fall under the categories of “quite proud of nation” and “very proud of nation” are 123% and 177% more likely to express happiness in their lives. Hence increasing national pride implies a higher likelihood of happiness or welfare.

Robustness checks of the results for the low as well as low and medium income groups are illustrated in Table 2. Column 1 regresses happiness on national pride without personal characteristics and macroeconomic variables. Result shows that the impact of pride on happiness is positive across all categories of national pride, and the pride variables are at least significant at the level of 5%. The same outcome applies for respondents from the low and medium income groups in columns 3 and 4, where increasing levels of national pride augments agent happiness with or without personal characteristics.

Table 2 presents robustness checks for respondents in the high income group and for all income levels. When not controlling for personal characteristics and macroeconomic variables, the variable corresponding to “not very proud of nation” is not statistically significant, though respondents who answer that they are “quite proud of the nation” or “very proud of the nation” are more likely than those in the base case (individuals who are “not at all proud of the nation”) to state that they are happy. When controlling for personal characteristics without macro controls, we arrive at the same outcome.

When considering all income groups in columns 3 and 4 of Table 3, all categories of national pride presented are positive and at least statistically significant at the level of 5%. Nonetheless, respondents who say that they are “quite proud
Table 3. Robustness check: National pride on happiness.

<table>
<thead>
<tr>
<th>Dependent Variable: Level of Happiness</th>
<th>High Income Group</th>
<th>All Income Group</th>
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<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
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<tr>
<td>Not very proud of nation</td>
<td>1.221</td>
<td>1.196</td>
</tr>
<tr>
<td></td>
<td>(0.165)</td>
<td>(0.171)</td>
</tr>
<tr>
<td>Quite proud of nation</td>
<td>1.995***</td>
<td>1.991***</td>
</tr>
<tr>
<td></td>
<td>(0.274)</td>
<td>(0.284)</td>
</tr>
<tr>
<td>Very proud of nation</td>
<td>2.231***</td>
<td>2.308***</td>
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<tr>
<td></td>
<td>(0.278)</td>
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<tr>
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<tr>
<td>Observations</td>
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<td>26249</td>
</tr>
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</table>

Personal characteristics

Macroeconomic controls

No Yes No Yes

Pseudo $R^2$

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.10</td>
<td>0.13</td>
<td>0.09</td>
<td>0.16</td>
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</table>

*p < 0.1; *p < 0.05; **p < 0.01; ***p < 0.001.

of the nation” are at least 90% more likely to state that they are happy compared to individuals in the base case, while respondents who are “very proud of the nation” are at least 124% more likely than individuals in the base case to be happy.

4. Conclusions

We show theoretically that social welfare in direct democracies is increasing in national identity through the economics of identity. We substantiate this result by applying logit regression analysis on integrated data from the European Value Survey by demonstrating that happiness (proxy for social welfare) is positively correlated with national pride (proxy for national identity).

A number of studies using statistical methods have demonstrated that national pride is positively correlated with measures for subjective well-being such as happiness and satisfaction of life. However, to the best of our knowledge, none have tried to formulate a theoretical paper examining the connection between national pride and welfare/happiness. There are, however, potential limitations to this work. First, measuring social welfare through agent utility maybe a common approach taken by some, but it remains uncertain whether this approach is without fault since welfare is subjective. Second, even though some studies consider happiness a suitable representation for utility, some works dispute this assertion. Hence, proxying welfare with happiness is not without controversy.

Acknowledgements

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References


# Appendix

Country List used in EVS from 1981 to 2014

<table>
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<tr>
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<td>Netherlands</td>
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