# Satisfaction not Guaranteed - Institutions and Satisfaction with Democracy in Western Europe

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## Abstract

What determines citizens' satisfaction with the "constitution in operation"? We make two contributions towards an answer to this important policy question. First, we place stronger emphasis than existing studies on quantitative interpretations of the importance of different factors. We use scenario analysis to show that a consensual system generally promotes satisfaction, but affects different types of citizens differently. Second, we focus on informal institutions and rules of the game in European societies. Corporatism and group membership as a measure of social capital are good for satisfaction, and people who live in countries with a high degree of income inequality tend to be less satisfied. The findings for trust and for the rule of law are ambiguous.

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# 1 Introduction

In recent years, economists have expended considerable effort to make the notion of "utility" or "well-being" operational. The happiness literature (see Frey and Stutzer (2002) for a review) has related factors ranging from economic growth to religious beliefs to happiness in life. By contrast, scholars interested in the political economy of democracy still tend to compare countries on the basis of more or less objective indicators of the degree of democracy. But quite obviously even countries that achieve exactly the same democracy ranking in, say, the Freedom House index, will not offer the same degree of satisfaction with the way democracy works to their citizens. Much as we want to know what drives subjective perceptions of personal happiness in life, scholars and policymakers should be interested in what drives subjective perceptions of satisfaction with democracy (SWD). From a philosophical point of view, it would be paradoxical, to say the least, to try to build democratic polities in a way that fits with theory (the liberal democratic paradigm shaped by Western political thinkers since the 17th century) but not with the people's will.

A number of recent papers have focused on SWD and its determinants. We will review some of them in more detail below. The literature suffers from three problems: SWD is conceptualized too easily; certain factors, in particular informal rules of the game in a society have not been considered as determinants of SWD; and the interaction of individual-level factors and society-level institutions has not been interpreted appropriately in quantitative terms. In this paper, we set out to deal with the second and third problem, while we mainly leave it to other papers to explore theoretical problems with the concept of SWD (Canache, Mondak et al. 2001). We will also have a little bit to

say about the theoretical concept of SWD, but the character of the paper is strictly empirical.

We quantify the impact of institutions and individual variables on satisfaction with democracy as it is measured by Euro-Barometers, cross-national surveys in Western Europe. Our main findings are the following: We reexamine the existing evidence for consensus versus majoritarian systems in depth and find considerable differences for different types of citizens. The resulting quantitative implications appear to have been overlooked so far. The interaction of institutional and individual variables comes out as quite important for policy decisions. Second, we provide what we believe to be the first analysis of the role of informal institutions in determining SWD. We find that corporatism together with a low degree of income inequality is good for satisfaction with democracy, as is social capital (as measured by group memberships). By contrast, the evidence for the effect of trust and for the rule of law on satisfaction is mixed.

These results lead us to conclusions about the nature of people's expectations toward democracy. On the one hand, the path toward the liberal democratic ideal is acclaimed by Europeans, who almost systematically support any move toward it. On the other hand, there is not "one best way" along this path, as the 'meaning' of democracy and expectations toward democratic regimes may vary significantly between countries.

Section 2 derives the hypotheses. Section 3 describes how we test the hypotheses and discusses methodological issues. Section 4 presents the main quantitative findings for a few particularly interesting specifications, and Section 5 concludes.

## 2   Theoretical background

David Easton's (1965; 1975) studies have served as a seminal work for the understanding of political support.  Easton was the first to make the distinction between objects of political support and types of political support.   Norris (1999) recently extended Easton's three-level analysis of these 'objects' into five: support for the political community, regime principles, regime performance, regime institutions, and political actors.[1]  Empirical studies found evidence that the public actually makes clear distinction between these levels.

We are interested in having a measure for the felt discrepancy between democratic norms and the actual democratic process, and it seems that the SWD item in the Eurobarometer and other surveys is the closest we can get to a measure for this at the moment (Thomassen 1995). It measures the support for the "constitution in operation" (Klingemann and Fuchs 1995). Still, it is problematic that scholars do not offer more in-depth discussion of what the "constitution in operation" can mean in citizens' minds, nor of the extent to which the indicator measures the same thing across countries.  Indeed, the key point to keep in mind about this indicator is the absence of an objective and/or clearly identified reference object.  Unlike for the other "objects," people differ not only in *the way* they evaluate it, but also on *what* they evaluate.  People differ with respect to what they have in mind when they think of democracy.

Given these difficulties, it is not surprising that critical observers (Canache, Mondak et al. 2001) have found that what "satisfaction with democracy" measures is neither the support for the idea of democracy (regime principles), nor the confidence in political

institutions (regime institutions), nor the support for incumbents (political actors; see Merkl (1988) and Dalton (1999)), nor purely system support (Harmel and Robertson 1986; McDonough, Barnes et al. 1986; Weil 1989; Fuchs 1993; Lockerbie 1993; Fuchs, Guidorossi et al. 1995; Morlino and Tarchi 1996; Anderson and Guillory 1997; Klingemann 1999).

The bottom line is that in a sense, we are in a situation similar to other areas of (economic) policymaking, for example in environmental policy where we sometimes need to rely on contingent valuation, i.e. survey methods to calculate environmental benefits: Is some number better than no number? This paper cannot resolve this controversy. Some argue that the answer to this question is "no." Canache et al. (2001) suggest that researchers stop using the SWD item of the Eurobarometers altogether because it is not clear what it measures.

By contrast, we take the pragmatic view that the SWD item can act as a summary indicator (Clarke, Dutt et al. 1993). Although it contains some ambiguity, that ambiguity is acceptable. Nevertheless, we expect that "satisfaction with democracy" cannot but be extremely hard to predict, since it is driven by individual interpretation on *both* sides of the "discrepancy": what democracy should look like, and the way it works. We do not aim to distinguish the different channels[2]. What the approach does tell us is that in addition to pragmatically *controlling* for individual level variables in our regressions, we

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[1] The typology runs from the most diffuse to the most specific support.

[2] This would be very difficult or indeed just as impossible as deciphering whether a measured increased risk appetite of investors stems from a decrease in risk, a change in the way people perceive risk, or a decreased risk aversion.

also need to *interpret* their interaction with the institutional variables in a clearer fashion than done so far in the literature (see below).

## 3   Hypotheses, data, and methodology

### *3.1  Hypotheses*

Having accepted the SWD item as the most operational variable for support for the constitution in operation, we can ask: What factors do we expect to play a role? Different scholars have emphasized different factors at different times: democratic history and political culture (Almond and Verba 1965; Inglehart 1997), formal democratic institutions (Lijphart 1994; Anderson 1998; Lijphart 1999; Bowler and Donovan 2002), political and economic performance (Lipset 1994; Anderson and Guillory 1997). We use a very simple theoretical logic to predict signs of our explanatory variables:

First, the worse off an individual is in terms of economic well-being and political influence the less satisfied he will be with the way democracy works in his country. This is almost self-evident and does not need much further theoretical explanation; for recent evidence on the role of winning and losing in elections see Anderson and LoTempio (2002). As a proxy for the position of an political-economic position of an individual in society, we use NATIONAL, the perception of change in national economic performance in the past 12 months, PERSONAL, the perception of change in personal economic performance in the past 12 months, and LOSER, a dummy variable which indicates whether the person had not voted for one of the parties which is now in the federal government. In addition, we also use a vector of demographic variables to control for

GENDER (sometimes), INTEREST (interest in politics), INCOME, AGE, and EDUCATION.

As a source for the demographic and economic variables, we use a series of Eurobarometers. Although the results remain robust across several years (see the section on robustness tests for more on this), in the tables presented in this paper, we focus on purpose on the panel for fall 1990 (11 countries, about 1000 potential observations each). There are two reasons to do this. First, it allows us to directly compare and contrast our findings with those of Anderson and Guillory (1997). Second, the observations of many of the institutional variables (like corporatism and trust) come from this period.

Second, we hypothesize that institutions that promote the amount and quality of political participation increase SWD. For *formal* institutions, this idea has been discussed and tested in the literature. The argument is that institutions like consensual democracy – which is measured mostly with respect to the election system, a formal institution - allow even those who voted for parties other than the government parties to be represented by the system. Already Lijphart (1994) makes the point that consensual democracies outperform majoritarian democracies in terms of responsiveness and do at least as well in terms of efficiency, and thus lead to higher levels of satisfaction with democracy. To test the role the consensuality of the system plays for different individuals, we present a specification that closely follows the ideas of Anderson and Guillory (1997): Losers should be less satisfied, but the higher the consensus orientation of a system is, the better

losers are off. Winners, on the contrary, prefer a majoritorian system. This hypothesis can be tested by including an interaction term LOSER*CONSENSUS in a regression[3].

We thus estimate

$$
\begin{aligned}
SWD_i = \alpha &+ \beta_1 GENDER_i + \beta_2 INCOME_i + \beta_3 EDUCATION_i + \beta_4 AGE_i + \beta_5 INTEREST_i \\
&+ \gamma_1 NATIONAL_i + \gamma_2 PERSONAL_i + \gamma_3 LOSER_i + \\
&+ \delta_1 CONSENSUS_i + \delta_2 CONSENSUS_i * LOSER_i
\end{aligned} \tag{1}
$$

where CONSENSUS has an index i, but varies only across individuals in different countries. To be consistent with our hyptoheses, we expect $\beta_2 > 0$, $\beta_3 > 0$, $\gamma_1 > 0$, $\gamma_2 > 0$, $\gamma_3 < 0$, $\delta_1 > 0$, $\delta_2 > 0$, while the other variables are pure control variables without any particular "story" associated with them.

The specification as such is not new. Our contribution here lies less with the estimation of this equation as such, but rather with the evaluation of different scenarios. It is surprising that most of the literature omits either individual or institutional variables completely. Even when both are included in estimations, studies typically do not analyze how the impact of certain institutions is in the presence of individual factors. For example, it is true that Anderson and Guillory (1997) find that the "satisfaction gap" between winners and losers of elections decreases along the majoritarian/consensual axis created by Lijphart (1994). But they give no quantitative interpretation of which conclusions hold for which parts of the population.

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[3] An alternative way is to run the model separately for losers and winners. The advantage of this is that one can allow for different coefficients on the other variables. Our experiments with this approach and evaluations with Clarify, the program provided by King et al. (2000), indicate that the quantitative results

To our knowledge, there no study so far has considered the effect of institutional variables other than the consensus/majoritorian system. This is quite surprising, since there exists a wide variety of institutional and social indices which can be hypothesized to be related to system support. We take institutions to broadly mean "rules of the game in a society." Informal rules trust and social capital are supposed to favor satisfaction with democracy because they allow conflicts to be solved more fairly and efficiently (for an application of this idea in a different context see Schneider and Wagner (2001)).

In the present paper, we present and evaluate the results for a few particular specifications: First we introduce an indicator of corporatism (social partnership). The social partnership index is the corporatism index of Tarantelli (1986), where corporatism is defined as a system of societal structure which typically has a high degree of centralization in wage bargaining, a high consensus orientation, and an active role of the government in mediating social conflicts (each of these three elements is evaluated on a scale of 4 to 5. The total score is the sum of the three elements and therefore ranges from 0 to 15)[4]. This is the most formal of alternative institutions we consider.

In variants of this model, besides social partnership, we also consider the effects for trust and group membership (both from Knack and Keefer (1997)), the gini index (i.e. the

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for the institutional variables and our main findings for the different effects on different types of people do not change. We therefore do not present them here.

[4] For some regressions not further explored in this paper but shown in table 1 as regressions (3) and (4), we also use an interaction term with LOSER for corporatism, on the same grounds as for consensus. Here, we have also tried a centered interaction term, but the results were not suggestive of any additional insight one might gain from this.

index of income inequality from Deininger and Squire (1996), a factor that is often categorized as being of institutional character because it contains a strong signal about value judgements in a society), and the degree of the rule of law (from Wagner (2000) who describes the primary sources).

When we add these institutions to equation (1) above, we expect their coefficients to reflect that more corporatism, greater trust, more widespread group membership, lower inequality, and a better rule of law promote SWD.

## 3.2   *Estimation technique and interpretation of the results*

There are a number of issues related to the choice of estimation technique and the interpretation of the results in order to get the most out of the available data. For the main part of the paper, our dependent variable is a binary variable "Satisfaction" which is 1 when the respondent answered "Very satisfied" or "satisfied" to the question "How satisfied are you with the way democracy works in your country?" It is 0 if the respondent said "Not satisfied" or "Not at all satisfied". We use a probit estimation procedure, implemented via maximum likelihood, to estimate the above equation[5].

A technical issue also concerns the proper dealing with the panel data setup. In particular, country fixed effects may play an important role. Including institutional

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[5] As almost always, experiments with logit estimation reveal that the quantitative interpretations do not change. Since the original data is in ordered categorical format (4 categories), we have also explored what happens when we use an ordered probit model. For space reasons – and because the results did not allow us any particular additional insight – we decided to present our findings from the binary probit in the main part of the paper. However, we do include a few figures based on the ordered probit without further comments in the appendix to give the reader a taste of the results in this model.

variables, which by definition don't vary within a country without further controls may lead to spurious results since this way one might just pick up some other fixed effect but not the effect one wishes to examine. We have explored several possibilities to deal with this issue. We use two complementary approaches here, which shed light on the questions we are interested in.

First, we run regressions controlling only for the individual level variables for each country separately. We then do simulations (see below for an explanation) and plot predicted probabilities of being satisfied against various institutional variables.

Second, we only consider all observations in one panel but include institutions of interest and a dummy variable for Italy which is clearly the (negative) outlier in terms of satisfaction with democracy (depending on which observations are included, approximately 25-35% of the people as opposed to more than 50-60% in other countries). This allows us to control for the strongest country effect we detected. The advantage of this approach, while not completely immune to the problem just discussed, is that we have actual parameter estimates which can again be used in simulations to make more substantive claims than through the analysis of the first approach. The section on robustness tests reports what we have done to further explore the validity of the results.

Through stacking all observations together and running a probit model over the whole sample, we recognize that there may be other potential problems (bias, wrong standard errors if the coefficients vary across individuals and countries, ignorance of the different sample sizes due to deleted observations). An alternative is to specify a TS-CS-binary model (where the "time" dimension here corresponds to the individuals). The results

obtained with the STATA package suggest that neither the size of the coefficients nor the standard errors are markedly different from the ones we get in our procedure.

Finally, we break with the tradition of reporting only quite unintuitive "probit coefficients." While we have included a summary table containing "raw" estimation results, we find that a better way to understand the implications of our models and the uncertainty of the results is through statistical simulation. In particular, the usual statement about the *statistical* significance of certain factors leaves the highly policy-relevant question of the quantitative *importance* (i.e. the *substantive* significane) of the effects unanswered. We follow King et al. (2000) here. For a description of the exact procedure, we refer the reader to the appendix.

# 4 Empirical results

## 4.1 Overview

We focus on what we believe are new findings. We start by exploring graphically the relationship between various institutions and SWD (section 4.2). The analysis in section 4.3 focuses exclusively on consensus since it is this formal institution that has received most attention in this context. After that, we turn to quantitative results for more informal institutions and find that many of them have been unjustly ignored so far.

## 4.2 A first cut at the role of institutions

Consider first the results from probit regressions on the individual level variables (here omitting gender because it is never significant; for space reasons we do not report this regression here but note that personal and national economic performance come out to be the most significant and important factors). As described in the methodological section and in the appendix, we then do simulations and obtain predicted values for the probability of satisfaction. In the graphs below we plot these predictions against an array of institutional variables. The lines indicate the 95% confidence interval. From these pictures, it seems to be the case that corporatism and income inequality are relatively good predictors for satisfaction with democracy. For trust and the rule of law, the evidence seems to be less clear and as we emphasize later, this suspicion turns out to be correct since the effect of these two variables comes out as sometimes positive and sometimes negative, depending on the specification. For consensus, there seems to be a somewhat positive effect. However, here we can most clearly see that Italy is an outlier with respect to its citizens' level of satisfaction with democracy.

**Figure 1: Probability of satisfaction and institutional variables (all individual level variables held at their median; results based on 10,000 simulations. Standard errors/confidence intervals shown as vertical bars).**
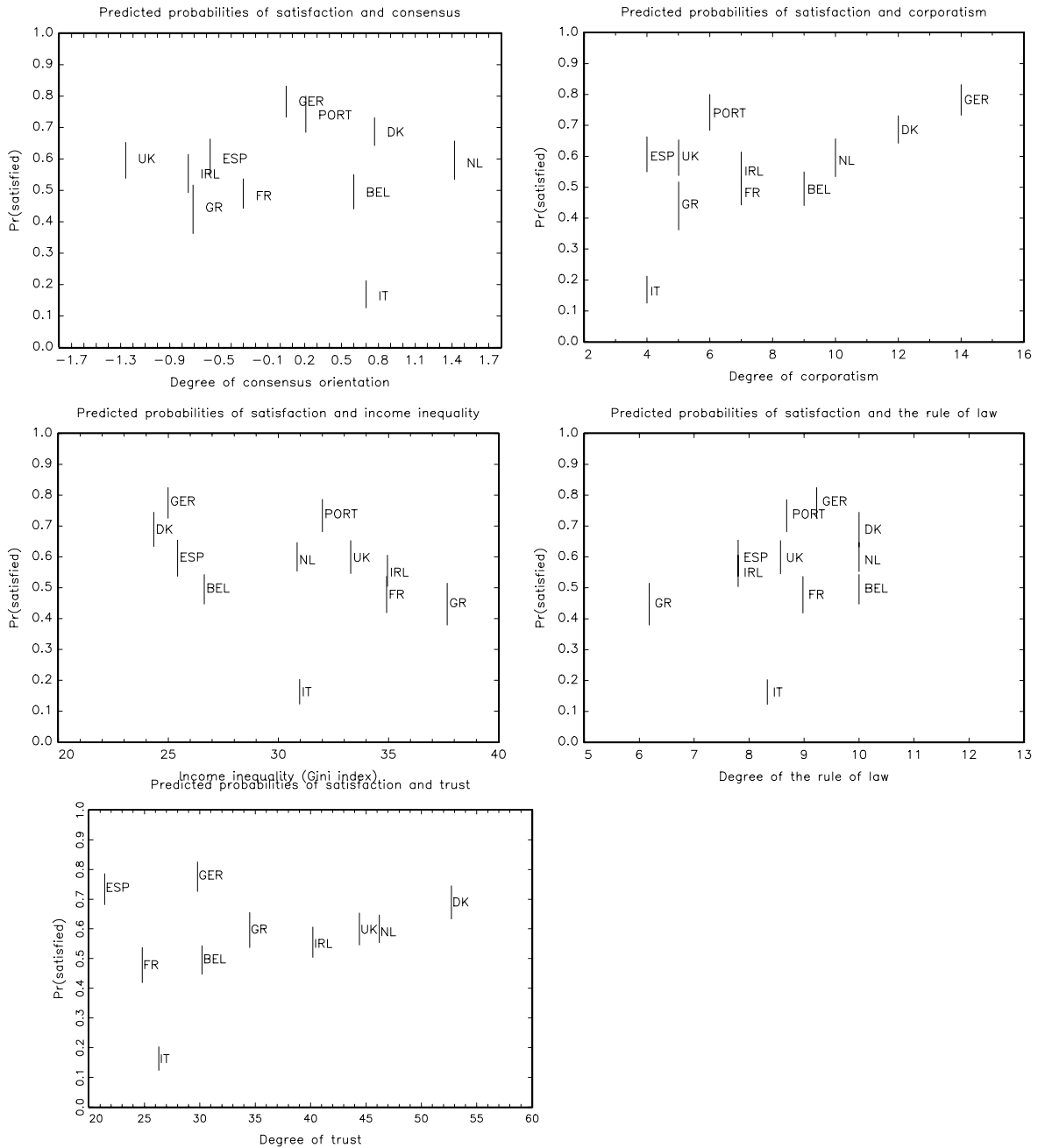
While these pictures allow us some first insights, we need to make the analysis more statistically rigorous by including the institutional variables of interest into the regressions. Table 1 contains several specifications. First note that also with controlling for institutional variables, we find that the effects of the individual level variables go in the expected direction: Losers are generally less satisfied; those who evaluate the national economic performance positively are more satisfied as are those that judge the development of their personal economic situation positively; wealthier individuals are also more satisfied. These three effects also dominate in quantitative terms. We cannot find robust statistical evidence for political interest, education or age being relevant for SWD, although several equations appear to suggest that more educated citizens tend to be less satisfied and that older people tend to be more satisfied. This allows speculations about the dual character of SWD we mentioned above, namely that SWD is the outcome of both individual expectations towards democracy (which may be higher for more educated individuals and lower for people who have experienced democracy longer) and individual perceptions of the performance of democracy (which may be more critical for more educated individuals and more positive for older people). Likelihood ratio tests confirm that leaving out all institutional variables does worse than including some combination of them. The hypothesis that the restricted model is indistinguishable from the unrestricted one (the latter being created by adding one or more institutional variables) is rejected for each institution considered here at the highest confidence levels[6].

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[6] The overall fit of the different specifications can be evaluated by comparing predicted and actual values. See the appendix.

**Table 1: Binary probit estimation (Dependent variable: 1= satisfied or very satisfied, 0 = not satisfied or not at all satisfied)**

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| **Loser** | **-0.377** | **-0.358** | **-0.578** | **-0.588** | **-0.342** | **-0.386** | **-0.406** | **-0.365** |
| | (11.00)** | (9.79)** | (6.37)** | (6.45)** | (9.65)** | (11.38)** | (11.92)** | (10.17)** |
| **National Economic** | **0.265** | **0.247** | **0.263** | **0.260** | **0.273** | **0.278** | **0.267** | **0.234** |
| Performance | (14.96)** | (12.98)** | (14.91)** | (14.74)** | (14.90)** | (15.88)** | (15.15)** | (12.39)** |
| **Personal Economic** | **0.141** | **0.124** | **0.144** | **0.132** | **0.144** | **0.145** | **0.131** | **0.127** |
| Performance | (7.44)** | (6.04)** | (7.57)** | (6.88)** | (7.18)** | (7.67)** | (6.87)** | (6.31)** |
| **Political Interest** | **-0.018** | **-0.005** | **-0.030** | **-0.023** | **-0.013** | **-0.013** | **-0.016** | **-0.017** |
| | (1.00) | (0.23) | (1.63) | (1.27) | (0.69) | (0.71) | (0.88) | (0.86) |
| **Income** | **0.017** | **0.020** | **0.017** | **0.022** | **0.013** | **0.015** | **0.025** | **0.019** |
| | (3.40)** | (3.47)** | (3.24)** | (4.26)** | (2.31)* | (2.95)** | (4.88)** | (3.28)** |
| **Education** | **-0.004** | **-0.006** | **-0.007** | **-0.008** | **-0.004** | **-0.005** | **-0.006** | **-0.004** |
| | (1.08) | (1.79) | (2.04)* | (2.35)* | (1.05) | (1.50) | (1.96) | (1.01) |
| **Age** | **0.002** | **0.001** | **0.001** | **0.002** | **0.002** | **0.002** | **0.002** | **0.001** |
| | (1.84) | (0.55) | (1.43) | (1.49) | (1.48) | (1.66) | (1.80) | (1.31) |
| **Corporatism** | - | **0.023** | **0.035** | **0.013** | - | - | - | **0.023** |
| | | (3.04)** | (3.93)** | (1.26) | | | | (1.90) |
| **Loser*Corporatism** | - | - | **0.024** | **0.024** | - | - | - | - |
| | | | (2.19)* | (2.19)* | | | | |
| **Gini (Inequality)** | - | **-0.026** | - | **-0.025** | - | - | **-0.037** | **-0.047** |
| | | (4.55)** | | (5.23)** | | | (9.48)** | (6.31)** |
| **Attitude towards)** | - | **0.212** | - | - | - | - | - | - |
| change(gradual=high | | (6.03)** | | | | | | |
| **Trust** | - | **-0.005** | - | - | - | - | - | **-0.027** |
| | | (2.28)* | | | | | | (4.94)** |
| **Consensus** | **0.057** | - | - | - | - | - | - | - |
| | (1.78) | | | | | | | |
| **Loser*Consens** | **0.152** | - | - | - | - | - | - | - |
| | (3.74)** | | | | | | | |
| **Groups** | - | - | - | - | **0.171** | - | - | **1.153** |
| | | | | | (2.31)* | | | (4.88)** |
| **Rule of law** | - | - | - | - | - | **0.089** | - | **-0.157** |
| | | | | | | (5.83)** | | (4.83)** |
| Italy | -1.288 | -1.074 | -0.969 | -1.032 | -1.193 | -1.107 | -1.107 | -1.491 |
| | (17.19)** | (13.77)** | (13.14)** | (13.79)** | (16.80)** | (15.74)** | (15.78)** | (12.18)** |
| Constant | -0.581 | -0.195 | -0.812 | 0.151 | -0.747 | -1.428 | 0.513 | 2.302 |
| | (4.42)** | (0.77) | (6.44)** | (0.68) | (5.96)** | (9.08)** | (2.89)** | (5.60)** |
| Observations | 6742 | 5862 | 6742 | 6742 | 6141 | 6742 | 6742 | 6141 |

Absolute value of z-statistics in parentheses
* significant at 5% level; ** significant at 1% level

Notes: 1. The long regression with all country dummies but without a constant is omitted for space reasons. Most dummies are generally significant (exceptions are Denmark, Germany, Portugal, and Great Britain) and take on a value around –0.5 up to –0.7. Italy clearly is an outlier with a value of –1.7. Similarly, the by country regressions used to create the graphs in section 4.2 are omitted.
2. Gender was only included in the first regression, since it turned out to be quite insignificant (coefficient 0.02, s.e. 0.03).

### *4.3 Quantitative results for consensus*

A problem in the existing literature is that scholars have typically stopped short of making statements about the relative importance of different factors influencing SWD. Knowing that variable X has a statistically significant impact on SWD does not help the policymaker judge whether it is worth to change X, if there is no statement about the relative size of the effect. Scenario analysis can help bring some light to this question.

Consider first the impact of consensual systems on the satisfaction of the "median citizen". Since we have argued that losers will benefit more from such a system, we present the results separately for male median winners and losers (the results are virtually the same for women).

**Figure 2: Minimum and maximum consensus and satisfaction for male median losers and median winners (smooth histogram from 10,000 simulations based on parameter estimates in regression (1)).**
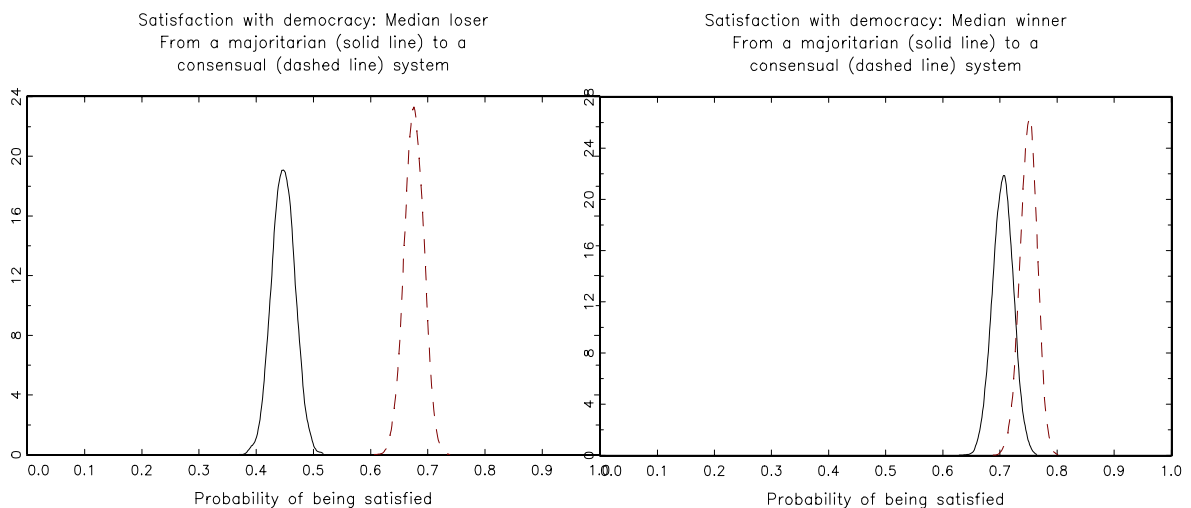


As can be seen from the figure, a loser who is at the median in terms of age, education, income and his/her perception of national and personal economic performance is

expected to gain roughly 20-30 percentage points of probability of being satisfied. The figure also clearly indicates that losers gain more from a consensus system than winners (we show the results for a change from the minimum value of consensus in the sample (Great Britain) to the maximum value (Netherlands)). In fact, for winners there is a relatively big uncertainty as to which way the effect will go. This can be seen from the overlap of the two kernel plots.

Having established that consensus is not unambiguously good for SWD overall, we want to add to the literature by documenting more in depth the quite substantial interaction between individual and institutional variables. For this purpose, we consider four scenarios, shown in the next figure[7].

For example, the best-off female loser (i.e. a woman ranking highest on all individual level characteristics, shown in the top left panel) has a high probability of being satisfied under both systems. While the point estimates suggest that a change from a majoritarian to a consensus system may bring a substantial gain (up to 20 percentage points here, leading to a probability of being satisfied of 90% instead of 70%) with it, there is a considerable amount of uncertainty associated with such a change, which is again indicated by the overlap of the kernel plots.

We find it interesting to consider an extreme case like the one in the lower left corner. Making losers better off economically and in terms of education (which would bring them approximately two thirds of the way from the solid kernel plot to the dashed one

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[7] Note that while we report results for women and men, since the gender variable is never significant, this does not amount to much. We just wanted to construct concrete and maybe not unrealistic scenarios.

(not shown)) and having a more consensual system clearly improves satisfaction with democracy. The second effect is highlighted separately in the lower right panel.

By contrast, and plausibly, a person with a strong position in society in terms of education and income who belongs to the group of winners rather prefers a majoritarian type of system, which gives him 90% of SWD as opposed to 76%, although there is again some overlap between the distributions (top right panel).

**Figure 3:   Minimum and maximum consensus and satisfaction for four different types of people (smooth histogram from 10,000 simulations based on parameter estimates in regression (1)).**

Satisfaction with democracy for the best−off female loser:
From a majoritarian system (solid line) to a
consensual system (dashed line)

Satisfaction with democracy:
for the best−off male winner in a majoritarian system (solid line)
to a mean male winner in a consensual (dashed line) system

Satisfaction with democracy:
From a majoritarian system for the worst−off female loser (solid line) to a
consensual system for the best−off female loser (dashed line)

Satisfaction with democracy of the worst−off female loser:
From a majoritarian (solid line) to a
consensual (dashed line) system

## 4.4   Results for informal rules of the "society game"

The second contribution of this paper is that we consider for the first time systematically – at least to our knowledge – institutional variables other than consensus and their interaction with individual level variables. The "raw" estimation results in table 1 (columns (2) and (8)) suggest that the institutional variables in general have a significant effect on SWD, although there are some surprises (like the strongly negative coefficient for trust). Again, simulation is the method we use to get more interesting and interpretable results. All the results presented in table 2 and discussed in the following are based on regression (8) in table 1, unless otherwise stated.

Table 2 is quite self-explanatory. To understand how to read it, first select a "rule of the game" of interest. For example, let us consider inequality. Then select one of the three scenarios in the three columns. For example, take the loser who perceives national economic performance to be very bad and has all other control variables at their median (column 1). Then, the table tells us that at the median of inequality in the sample, the probability of being satisfied is 48%, with a 95% confidence interval between 44% and 52%. By contrast, if inequality is lower, for example only in the first quartile (25%-Percentile), the probability of being satisfied goes up to 58%. From the minimum to maximum inequality, SWD decreases by 20%. Thus, inequality is strongly regarded as being incompatible with the idea that most people have of democracy in Europe. For both winners and losers, at all levels of personal and economic performance, inequality substantially decreases satisfaction with democracy (cf. the findings of Alesina (2001) who reports a relatively high degree of caring for the issue of inequality among Europeans).

Secondly, corporatism turns out to be a reliable but not so strong predictor of satisfaction with democracy as well. For example, ceteris paribus, a maximal increase of the degree of corporatism (which amounts to quite a system change) increases satisfaction for losers by 10% on average, whereas winners only gain 5%. The effects of corporatism and inequality are even stronger when one takes into account that typically the two variables move in opposite directions (see also the simple correlations in the appendix). The kernel plot in the following figure shows just that.

**Figure 4: Inequality and corporatism (minimum and maximum values) and satisfaction for the median citizen (smooth histogram from 10,000 simulations based on parameter estimates in regression (2) in table 1).**

Changes in satisfaction with democracy:
From high inequality, low social partnership (solid line) to
low inequality, high social partnership (dashed line)
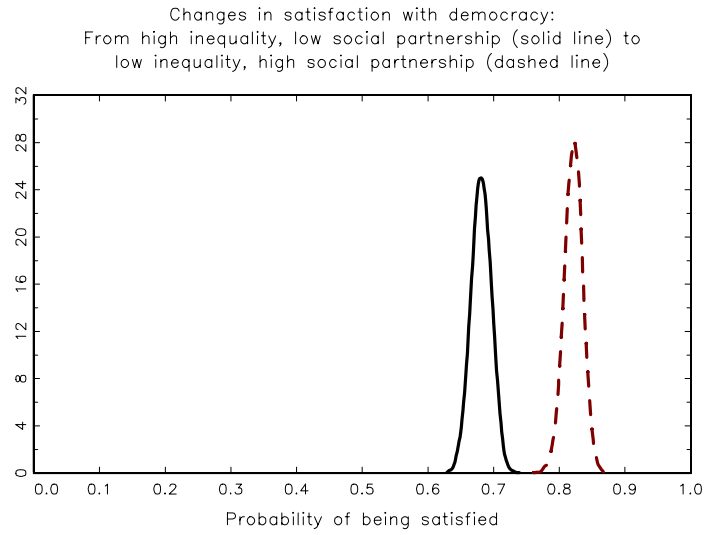
**Table 2:** **Predicted probabilities of satisfaction with democracy and first differences (FD) under different scenarios (10,000 simulations based on regression (8) in table 1; 95% confidence intervals in parentheses)**

| | | Loser, National economic performance perception minimal | Loser, median National economic performance perception | Winner, median personal economic performance |
|---|---|---|---|---|
| | | All other variables at their medians | | |
| **Corporatism** Low | 25%-Percentile | **.46** ( .41 .51) | **.64** (.60 .68) | **.77** (.73 .80) |
| | Median | **.48** (.44 .52) | **.66** ( .63 .69) | **.78** (.75 .81) |
| High | 75%-Percentile | **.51** ( .47 .54) | **.68** (.66 .71) | **.80** (.78 .82) |
| | FD Min to Max | **.09** ( -.01 .19) | **.08** (-.01 .17) | **.06** (.008 .13) |
| **Rule of law** Low | 25%-Percentile | **.52** (.48 .56) | **.72** (.69 .75) | **.81** (.78 .83) |
| | Median | **.48** (.44 .52) | **.69** (.66 .71) | **.78** (.75 .81) |
| High | 75%-Percentile | **.42** (.36 .47) | **.63** (.60 .65) | **.76** (.73 .79) |
| | FD Min to Max | **-.14** ( -.20 -.08) | **-.12** (-.17 -.07) | **-.08** ( -.12 -.04) |
| **Group membership** | 25%-Percentile | **.32** (.28 .37) | **.53** (.48 .59) | **.64** (.60 .69) |
| | Median | **.48** ( .44 .52) | **.69** (.66 .71) | **.78** (.75 .81) |
| High | 75%-Percentile | **.53** ( .48 .59) | **.73** (.70 .76) | **.82** (.78 .85) |
| | FD Min to Max | **.31** (.19 .42) | **.28** (.17 .39) | **.24** (.15 .32) |
| **Inequality** Low | 25%-Percentile | **.58** (.52, .64) | **.75** (.70 .79) | **.85** (.81 .88) |
| | Median | **.48** (.44 .52) | **.66** (.63 .69) | **.78** (.75 .81) |
| High | 75%-Percentile | **.43** (.40 .47) | **.62** (.59 .64) | **.75** ( .72 .77) |
| | FD Min to Max | **-.20** ( -.26 -.14) | **-.18** ( -.22 -.13) | **-.14** (-.18 -.10) |
| **Trust** Low | 25%-Percentile | **.57** (.50 .63) | **.76** ( .72 .80) | **.84** (.80 .88) |
| | Median | **.48** (.44 .52) | **.69** (.66 .71) | **.78** (.75 .81) |
| High | 75%-Percentile | **.37** (.34 .41) | **.58** (.54 .63) | **.69** (.67 .72) |
| | FD Min to Max | **-.32** (-.44 -.21) | **-.30** (-.41 -.19) | **-.26** (-.35 -.16) |

Third, in the regression shown here, trust is strongly negatively related to satisfaction with democracy. This is completely at odds with all predictions. However, we are quick to emphasize that this happens in this particular specification but not in others. We picked this one on purpose to show which effects are possible. It is very hard to explain why groups are so positively (and robustly) related to satisfaction whereas trust is sometimes positive and sometimes negative. One lesson we draw from this exercise, however, is that taking individual level factors into account is crucial. Leaving them out of a regression gives a positive impact of trust always (as found by Anderson (1998)) – but this is a spurious correlation as we show here. A possible explanation for the ambiguous results for trust lies in its potential to increase rent-seeking in a society (Schneider and Wagner 2001).

By contrast, the degree to which a society fosters group memberships of its members is almost always significantly related to satisfaction with democracy. Here, a jump from the 25th percentile to the median boosts satisfaction of the loser with a dark perception of national economic performance by 15% points. Here we have a clear policy implication: fostering the degree to which people engage in social interactions improves their support of the regime per se. This is related to arguments of Putnam (1993).

Finally, and equally surprisingly, the rule of law actually has a small but significant negative impact on satisfaction with democracy. The effect is stronger for losers (up to minus 12 percentage points) than for winners (up to minus 8 percentage points). Again, however, we note that in alternative specifications other results arise. Table 1 reports a regression, for example, which gives a positive coefficient on the rule of law (regression (5)). The most we can say for this institution is that its effect on SWD is not clear.

# 5  Conclusion and policy implications

A first major policy message is that, much as there exists no economic project that is truly Pareto-improving, there also exists virtually no policy to improve everybody's satisfaction with democracy (SWD). A consensual system generally promotes satisfaction, but one needs to distinguish different types of citizens. Losers, poorer and less educated people gain in terms of satisfaction with democracy when a consensual system is present. Our findings lead us to reject the hypothesis that a consensus system is unambiguously better able to provide high degrees of satisfaction of the population than a majoritarian system.

Second, we present evidence for the role other institutions and rules of the game in a society play for SWD. We find that corporatism and group membership as a measure of social capital are good for satisfaction. By contrast people who live in countries with a high degree of income inequality tend to be less satisfied. The findings for trust and the rule of law are ambiguous.

We interpret the lack of unambiguous results for some institutions as corresponding to different expectations of citizens in different countries. Conversely, one should be careful in demanding, say "more corporatism" too fast. Thus, while our empirical results are interesting, they also point to a severe shortcoming in the theory of satisfaction with democracy. The theory that provides a convincing account of ideals of democracy as related to perceptions of its actual workings together with the two apparently most important dimensions of institutions, conflict management potential and efficiency, remains to be written. We regard this as the big challenge for future research.

# 6   Appendix

## 6.1   Descriptive statistics and data sources

| Variable | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|
| Satisfaction with democracy | .613 | .481 | 0 | 1 |
| Loser | .556 | .501 | 0 | 1 |
| National economic performance (NatEc) | 2.760 | 1.038 | 1 | 5 |
| Personal economic performance (PerEc) | 2.964 | .947 | 1 | 5 |
| Interest in politics | 2.416 | .932 | 1 | 4 |
| Income (categorical) | 6.831 | 3.544 | 1 | 12 |
| Years of education | 17.215 | 5.138 | 6 | 98 |
| Age | 45.210 | 16.994 | 15 | 99 |
| Sex | 1.492 | .50 | 1 | 2 |
| Attitude towards social change | 2.206 | .520 | 0 | 3 |
| Consens | -.0920 | .813 | -1.56 | 1.08 |
| Loser*Consens | -.065 | .598 | -1.56 | 1.08 |
| Trust | 35.961 | 10.090 | 21.4 | 52.7 |
| Corporatism | 7.808 | 3.240 | 4 | 14 |
| Loser*Corporatism | 4.309 | 4.575 | 0 | 14 |
| Gini (Inquality) | 30.472 | 4.412 | 24.34 | 37.67 |
| Rule of law | 8.755 | 1.117 | 6.18 | 10 |

Data used for the tables in the main part of the paper are generally from the Eurobarometer 34.2 (1990). Data on corporatism (social partnership) is from Tarantelli (1986), data on trust from the World Values Surveys as reported by Knack and Keefer (1997), data on income inequality (GINI) from Deininger and Squire (1996), Consensus vs. majoritarian democracy from Lijphart (1994), the rule of law from Wagner (2001) who describes the primary source. Data on governments is from http://www.terra.es/personal2/monolith/00europa.htm.      LOCORP=LOSER*CORPO. LOCON=LOSER*CONSENS. Most of the individual level variables are self-explanatory. Loser was defined as 1 if the person had not voted for a party that was in the government at the time of the survey. Attitude towards social change is 3 if the person prefers gradual change, and 1 if the person believes that "we need a revolution." Higher income categories earn more. People with a value of 4 on interest with politics are very interested, those with a value of 1 are not interested at all. Both personal and national economic performance refer to the change over the past 12 months and have higher values if the person said her or his situation got "better". Gender is coded such that 2=woman, 1=man. Gini is higher for more unequal countries. The rule of law index is higher in more orderly societies.

**Correlation between the institutional variables**

| | Consens | Trust | Corporatism | Gini | Rule of law | Groups |
|---|---|---|---|---|---|---|
| Consens | 1.0000 | | | | | |
| Trust | 0.0711 | 1.0000 | | | | |
| Corp. | 0.4283 | 0.3033 | 1.0000 | | | |
| Gini | -0.2734 | -0.2136 | -0.5501 | 1.0000 | | |
| Rulelaw | 0.4424 | 0.3460 | 0.7207 | -0.4038 | 1.0000 | |
| Groups | 0.3281 | 0.8187 | 0.3630 | -0.0471 | 0.3780 | 1.0000 |

## 6.2  Overall fit of the models

The figures shown here reveal that neither of the specifications is really superior to the others. All of them produce reasonable good *overall* fits, with no systematic over- or underprediction, but with a few outlier predictions every now and then. It is important to realize that these figures do not tell us, say, whether the consensus variable is more important or other institutional variables are.

In the graphs, "Model A" refers to a specification with consensus as the institutional variable, whereas "Model B" is a specification with corporatism.

**Figure 5:   Goodness of fit in two specifications**
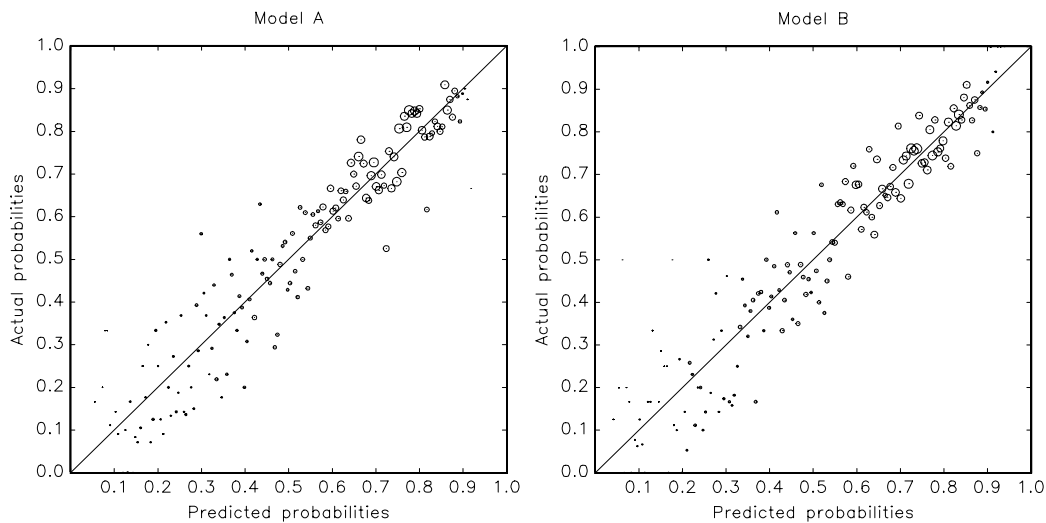


The predicted probabilities of satisfaction with democracy were sorted into 150 intervals by size. For each interval, the average probability of satisfaction is plotted on the y-axis against the average prediction on the x-axis. The closer the circles (which indicate the number of observations in that particular "bin") are to the 45 degree line, the better the fit.

### 6.3 Simulation technique

Recall that the probit model can be expressed with two core equations (King 1998): $Y_i = f(\theta, \alpha)$ and $\theta = g(X_i, \beta)$ where the first equation indicates that the dependent variable is drawn from $f(\theta, \alpha)$, i.e. the stylized normal distribution in the present case. $\theta$ represents the features that vary across observations (modeled here as a linear term $X_i\beta$), while $\alpha$ is a set of ancillary parameters (the threshold parameter $\tau$ is set to zero for convenience). Now, consider the following procedure: First, specify a "scenario", i.e. a vector of values for the explanatory variables that we are interested in. Second, draw $m$ sets of estimated parameters from the multivariate normal distribution, which takes as inputs the estimated coefficients from the regressions and their variance-covariance matrix. The multivariate normal distribution is appropriate since a Central Limit Theorem holds. Third, use these simulated parameters and the scenario vector to calculate $m$ values of $\theta = X_i\beta$. Since for the present model, this also gives the expected value, these values can directly be used to learn something about mean predictions of satisfaction with democracy (including confidence intervals), first differences and other quantities of interest. An intuitive way of characterizing effects of institutions on democracy are so-called kernel plots, i.e. smoothed histograms based on many expected values. In that case, the vertical axis reports the frequency of a given predicted value[8]. All simulations and plots are based on 10,000 simulations. For all the simulations in section 4.3, we set the

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[8] We choose to report absolute frequencies because this seems to us to be a better way to think that we actually are interested in individuals' satisfaction with democracy. These can easily be transformed into relative frequencies.

Italy dummy equal to zero. This means that the results should be interpreted as pertaining to all countries except Italy. Leaving out all observations for Italy in the first place does not affect the results.

### *6.4  Robustness tests*

We have considered several robustness tests of our calculations. Most importantly, in many different specifications (for example, dropping one of the demographic variables at a time, adding additional variables like unemployment or actual GDP growth), the direction of the effects remains the same (including the ambiguity of results for trust and the rule of law). Of course, the magnitude of the effects is different. But the differences are small and thus do not warrant a further discussion here. We have also experimented with different Eurobarometer datasets. Unfortunately, not all the same questions were asked in the same Eurobarometers. The same items are available for only a few Eurobarometers. The substantive results remain robust when we use Eurobarometer 42 instead. Applying a logit instead of a probit setup does not change the substantive results. Including more country dummies in addition to Italy does not alter the qualitative results. Neither does leaving out all observations pertaining to Italy; the consensus variable gets a slightly stronger positive effect then, though. In quantitative terms, the effect of consensual systems are less pronounced for most types of individuals considered (except for the worst-off female). By contrast, the predicted first differences of changes in national economic performance evaluations and personal economic well-being are bigger by between 0.02 and 0.04 percentage points. Finally, the substantive conclusions are not altered when we consider an ordered probit model, as can be seen from the following figures.

**Figure 6: Minimum and maximum consensus and degree of satisfaction for four different types of people (smooth histogram from 10,000 simulations from ordered probit regression).**
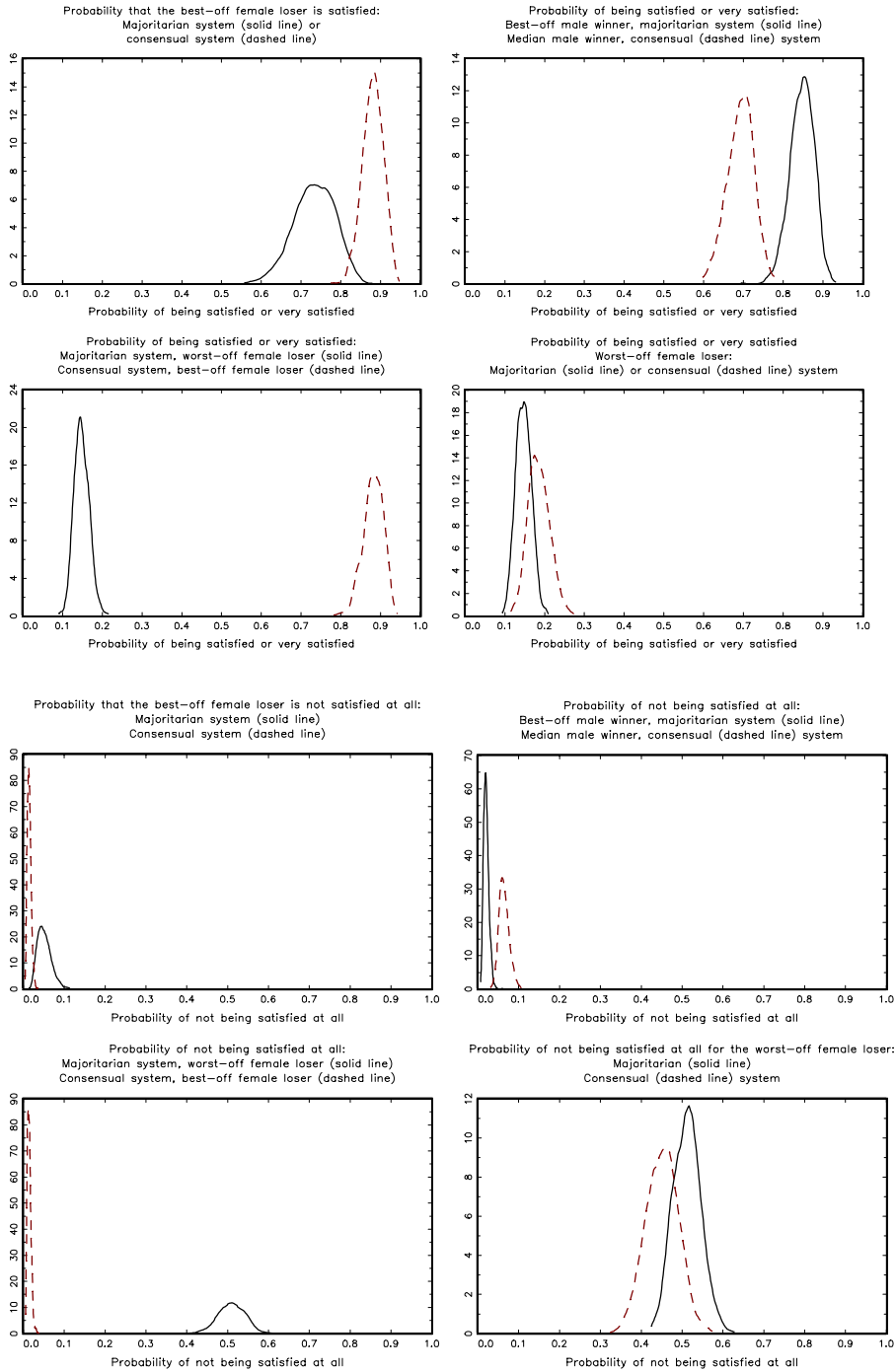
# 7 References

Alesina, A. (2001). Inequality and Happiness: Are Europeans and Americans Different? Cambridge, Harvard University.

Almond, G. and S. Verba (1965). The Civic Culture. Boston, Little, Brown.

Anderson, C. and C. Guillory (1997). "Political Institutions and Satisfaction with Democracy: A Cross-National Analysis of Consensus and Majoritarian Systems." American Political Science Review **91**(March): 66-81.

Anderson, C. J. (1998). "Parties, Party Systems, and Satisfaction with Democratic Performance in the New Europe." Political Studies **46**: 572-588.

Anderson, C. J. (1998). Political Satisfaction in Old and New Democracies, Cornell University, Institute for European Studies Working Paper 98.4.

Anderson, C. J. and A. J. LoTempio (2002). "Winning, Losing and Political Trust in America." British Journal of Political Science **32**: 335-351.

Bowler, S. and T. Donovan (2002). "Democracy, Institutions and Attitudes about Citizen Influence on Government." British Journal of Political Science **32**: 371-390.

Canache, D., et al. (2001). "Meaning and measurement in cross-national research on satisfaction with democracy." Public Opinion Quarterly **65**: 506-528.

Clarke, H. D., et al. (1993). "The Political Economy of Attitudes toward Polity and Society in Western European Democracies." Journal of Politics **55**: 998-1021.

Dalton, R. J. (1999). Political Support in Advanced Industrial Democracies. Critical Citizens: Global Support for Democratic Governance. P. Norris. New York, Oxford University Press.

Deininger, K. and L. Squire (1996). "A New Data Set Measuring Income Inequality." World Bank Economic Review **4**: 565-591.

Easton, D. (1965). A System Analysis of Political Life. New York, McGraw Hill.

Easton, D. (1975). "A Re-Assessment of the Concept of Political Support." British Journal of Political Science **5**(October): 435-437.

Frey, B. and A. Stutzer (2002). "What can economists learn from happiness research?" Journal of Economic Literature **40**(2): 402-435.

Fuchs, D. (1993). Trends of Political Support in the Federal Republic of Germany. Political Culture in Germany. D. Berg-Schlosser and R. Rytlewski. London, Macmillan.

Fuchs, D., et al. (1995). Support for Democratic System. Citizens and the State. H.-D. Klingemann and D. Fuchs. New York, Oxford University Press.

Harmel, R. and J. D. Robertson (1986). "Government Stability and Regime Support: A Cross-National Analysis." Journal of Politics **48**: 1029-40.

Inglehart, R. (1997). Modernization and Postmodernization. Princeton, Princeton University Press.

King, G. (1998). Unifying Political Methodology. Ann Arbor, The University of Michigan Press.

King, G., et al. (2000). "Making the Most of Statistical Analyses: Improving Interpretation and Presentation." American Journal of Political Science **44**(2): 341-355.

Klingemann, H.-D. (1999). Mapping Political Support in the 1990s: A Global Analysis. Critical Citizens: Global Support for Democratic Governance. P. Norriis. New York, Oxford University Press.

Klingemann, H.-D. and D. Fuchs (1995). Citizens and the State. New York, Oxford University Press.

Knack, S. and P. Keefer (1997). "Does Social Capital Have an Economic Payoff? A Cross-Country Investigation." Quarterly Journal of Economics **112**(4): 1251-1288.

Lijphart, A. (1994). "Democracies: Forms, Pefromance, and Constitutional Engineering." European Journal of Political Research **25**(January): 1-17.

Lijphart, A. (1999). Patterns of Democracy: Government forms and Performance in 36 countries. New Haven, Yale University Press.

Lipset, S. M. (1994). "The Social Requisites of Democracy Revisited." American Sociological Review **59**(February): 1-22.

Lockerbie, B. (1993). "Economic Dissatisfaction and Political Alienation in Western Europe." European Journal of Political Research **23**(281-93).

McDonough, P., et al. (1986). "The Growth of Democratic Legitimacy in Spain." American Political Science Review **80**: 735-759.

Merkl, P. H. (1988). Comparing Legitimacy and Values among Advanced Democratic Countries. Comparin Pluralist Democracies. M. Dogan. Boulder, Westview.

Morlino, L. and M. Tarchi (1996). "The Dissatisfied Society: The Roots of Political Change in Italy." European Journal of Political Research **30**: 41-63.

Norris, P. (1999). Critical Citizens: Global Support for Democratic Government. New York, Oxford University Press.

Putnam, R. D. (1993). <u>Making Democracy Work</u>. Princeton, Princeton University Press.

Schneider, F. and A. Wagner (2001). "Institutions of Conflict Management and Economic Growth in the European Union." <u>Kyklos</u> **54**(4): 509-532.

Tarantelli, E. (1986). "The regulation of inflation and unemployment." <u>Industrial Relations</u> **25**: 1-15.

Thomassen, J. (1995). Support for Democratic Values. <u>Citizens and the State</u>. H.-D. Klingemann and D. Fuchs. New York, Oxford University Press.

Wagner, A. F. (2000). Institutions and Growth: Theoretical foundations and empirical evidence. <u>Department of Economics</u>. Linz, University of Linz.

Weil, F. D. (1989). "The Sources and Structure of Legitimation in Western Democracies: A Consolidated Model Tested with Time-Series Data in Six Countries since World War II." <u>American Sociological Review</u> **54**: 682-706.

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