# INTEGRATION & EXCHANGE RATE THEORY: EMPIRICALLY EVALUATING THE PREDICTABILITY OF INDIVIDUAL PREFERENCES

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#### **ABSTRACT**

GINA FLAKES: Integration & Exchange Rate Theory: Empirically Evaluating the Predictability of Individual Preferences (Under the Direction of Thomas Oatley)

This dissertation comprises three articles that collectively speak to the predictability, or pliability, rather, of individual preferences. Likewise it highlights the liabilities that are assumed when, for simplicity's sake, scholars make the assumption that individual preferences are either endogenously or exogenously given. Using a dataset with observations spanning from 1973 to 2011, article one empirically scrutinizes Ronald Inglehart's "Silent Revolution Theory," which holds individual preferences as endogenously given, a constructive product of societal and generational contexts. Consistent with the statistical findings of article two, individual preferences are neither solely a function of constructive or utility-based factors. Finally, article three, which features rare American public opinion data on the exchange rate, further substantiates this work's central theme of the perils associated with research that defines individual preferences as either exclusively endogenously or exogenously given.

To Addy, Mabel and Pidge

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#### **CHAPTER 1**

# **EUROPEAN INTEGRATION ATTITUDES 1973-2011:** An Empirical Evaluation of Inglehart's Silent Revolution Theory

Within the past fifty years, a strong line of Political Science scholarship has sought to determine the source(s) of individual support for European integration. One of the strongest research traditions in this area remains Ronald Inglehart's Silent Revolution Theory, which holds support as a function of socialization processes and intergenerational value shifts.

Despite the immense influence of Inglehart's theory, which for many years was considered "the" explanation of integration support, its empirical renown is not as impressive. Indeed, an adequate empirical evaluation of Inglehart's theory could not be conducted until recently, as its testing necessitated several decades' worth of cross-sectional panel data (Inglehart 1970a, 1970b, 1971a, 1971b, 1977; Inglehart, Rabier & Reif 1991; Janssen 1991). Finally, we have reached a point where we have data spanning a window of time long enough to evaluate this theory, which lies at the core of so much of the integration scholarship that has been conducted.

In this paper I use newly available data from Eurobarometer Surveys, spanning from 1973 to 2011, and cross-sectional, logistic and ordinary least-squares regression analysis to test Inglehart's theory statistically. I use Janssen's 1991 framework, evaluating the hypotheses derived from Silent Revolution Theory regarding integration attitudes at the micro (individual), meso (age-cohort) and macro (national) levels. I expand the dataset

beyond the four nations in Janssen's study to sixteen European Union member countries over a period of more than thirty-five years, allowing us to produce firm conclusions about this theory's explanatory power (Inglehart 1971a, 1971b, Janssen 1991).

While our statistical tests do not confirm all of the Silent Revolution hypotheses, the results demonstrate solid support for Inglehart's theory at the micro level. Contrary to previous studies which have relied on an insufficient time period for analyzing this theory, the tests empirically substantiate Inglehart's hypotheses positing that value orientation and cognitive, political mobility levels are meaningful determinants of individual integration attitudes. At the macro level, cognitive, political mobility levels demonstrate the hypothesized aggregate impact on integration attitudes, while value orientation does not. Likewise, at the meso level the results are mixed. The meso findings highlight the need for further investigation into the issue of whether integration attitudes are driven more so by generational or life-cycle effects, as the implications of each could be drastically different.

#### INGLEHART'S SILENT REVOLUTION THEORY

According to Inglehart's Silent Revolution Theory, the peaceful and prosperous postwar era gave rise to an intergenerational value transformation toward postmaterial priorities. One of the most significant implications of this value shift with regard to Western Europe was that support for European integration would increase. Inglehart's thesis is premised on the belief that individual values are an artifact of socialization processes and the institutional context within which one's formative years take place (Inglehart 1971a, 1971b, 1977, 2008). His assumptions regarding the individual's development of political attitudes and preferences, as well as intergenerational differences, ultimately had ramifications at the aggregate level. I will first discuss the micro-level hypotheses, then the meso- and close the

section with those at the macro level.

At the micro or individual level, integration attitudes are a product of one's political value-orientation and level of cognitive, political mobility (Inglehart 1970a, 1971a, 1971b, 1977; Janssen 1991). In terms of value orientation, Inglehart contends that individuals can be classified as either materialist or postmaterialist. Individuals with a materialist value orientation place a premium on issues related to economic and physical security. In contrast, the priorities of postmaterialists are oriented around intellectual fulfillment and emotional attachments. Thus, he argues that postmaterialists are more supportive of integration than materialists, as meaningful evaluation of this abstract process fulfills his or her intellectual curiosity and needs. Materialists, on the other hand, are not interested in such abstract issues, as their attitudes and interests are vested in purely material matters (Inglehart 1971a, 1971b, 1977).

Postmaterialists are also expected to be more supportive of integration because of the purported added emotional attachment it provides at a collective level. Inglehart argues that postmaterialists are likely to view the nation-state as a material-centric agent, therefore compelling them to attach themselves to supra-national levels of government, such as the European Community/Union, which are predisposed toward more postmaterial priorities.

Hypothesis I: Postmaterialists are more likely to support European integration than materialists.

The second facet of Inglehart's theory at the micro level concerns one's cognitive, political capacity, which facilitates the understanding of abstract concepts and processes.

According to his Cognitive Mobilization Thesis, higher cognitive, political capacity- usually conceived of in terms of political awareness, involvement and communication skills-promotes support for integration. He reasons that because information concerning European

integration and supra-national politics is at a high level of abstraction, a heightened degree of cognitive, political capacity is needed to process and interpret relevant political messages and events. Accordingly, individuals intellectually equipped to handle abstract dynamics and attune to political matters are less threatened by the process of integration, and are consequently more likely to be supportive of it than their peers of lower cognitive, political endowments (Inglehart 1970a, 1977; Inglehart, Rabier & Reif 1991). In Inglehart's words, cognitively mobilized individuals "are less likely to have a parochial outlook: more accustomed to dealing with abstractions, they can more readily identify with, and feel comfortable with, remote large-scale institutions such as the European Community." Thus, even though higher education and attention levels may better enable the individual to perceive the potential costs of integration, these costs are offset by the cosmopolitan perspective and priorities that an advanced degree of cognitive mobility also cultivates (Inglehart 1970a, 1971b; Inglehart, Rabier & Reif 1991, Mansfield & Mutz 2008).

Hypothesis II: Individuals with a higher Cognitive, Political Mobility level are more likely to be supportive of European integration than those of lower levels.

Inglehart's theory also expects integration support to vary according to generations or age-cohorts. Because value orientations and cognitive, political mobility levels are a product of conditions surrounding the individual's formative years, Inglehart expects there to be substantial differences between the interests and attitudes of prewar and postwar generations. The peaceful and prosperous conditions which characterized Western Europe provided improvements in the compulsory educational system as well as opportunities in higher education. Coupled with technological developments which enabled the expansion of mass communication, individuals coming of age within the postwar era are expected to have, on

average, higher cognitive, political skills and be better apprised of national and transnational politics and events (Inglehart 1970a, 1977; Inglehart, Rabier & Reif 1991; Janssen 1991).

In addition to the postwar climate's impact on the development of cognitive, political skills, Inglehart also argued that affluent and peaceful conditions increased the likelihood that individuals coming of age during this time would be more postmaterialistic than prewar generations. Because prewar cohorts grew up in a time when physical and economic security was not a certainty, these individuals' priorities are expected to remain oriented around material needs and are consequently less likely to support integration.

Another critical factor making postwar cohorts more supportive of the process is the fact that they were raised under European institutions. Inglehart contends that the more consolidated European institutions are during one's formative years, the more solid that generation's support for integration will be. We would therefore expect individuals coming of age from the late 1980s onward to be strongly supportive of integration, given the highly consolidated European atmosphere that surrounded their development. Although previous European generations lived through monumental events like the Treaty of Rome (1957) and Brussels (1967), research indicates that it was not until the late 1980s that integration efforts became more than just an ephemeral movement among elites (Haas 1958; Hooghe & Marks 2008). In other words, it was not until measures like the Single European Act and Maastrict Accords that integration processes were made manifest at the mass public level (Hooghe & Marks 2008).

Indeed, this generation's formative, institutional context included the European Union, a single European market and currency, as well as common foreign and commercial trade policies. The formal institutional landscape was also populated with entities like the

European Parliament, European Central Bank and European Court of Justice, which possessed EU-wide jurisdiction. Common European citizenship was established, complete with a flag, anthem and EU holiday ("Europe Day"). Thus, given the highly consolidated environment surrounding the adolescent period of the age cohort born after 1975, this group should be strongly supportive of integration, even more so than previous ones.<sup>1</sup>

Hypothesis III: Postwar Cohorts are more likely to be supportive of European integration than Prewar Cohorts.

Hypothesis IV: The age-cohort born after 1975, Post-1975 Cohort, is more likely to be supportive of European integration than previous cohorts.

Finally, Inglehart's theory includes implications at the aggregate or macro level. As postwar generations, with higher cognitive, political skill levels and more postmaterially oriented values, slowly replace prewar those of the prewar era, over time the aggregate level of postmaterialism and cognitive, political mobility should increase. Consequently, as the rate of postmatieral values and cognitive, political mobility rises, so too should support for integration at the macro level.

Hypothesis V: Aggregate postmaterialism should be positively related to European Integration Support.

Hypothesis VI: Aggregate cognitive, political mobility level should be positively related to European Integration Support.

#### RESEARCH DESIGN

#### **Data & Methods**

I use longitudinal data from Eurobarometer Surveys extending from 1973-2011 and

<sup>&</sup>lt;sup>1</sup> In addition to the theoretical justification for setting the generational line at 1975, available EB data after 2002 also constrains our options for designating what year marks the outset of different age cohorts to ten year increments at the very least.

including sixteen EU nations (Figure 3).<sup>2</sup> These surveys span several decades and feature a wide variety of individual information from demographic to public opinion trends. The usage of a large dataset mitigates the possibility that the conclusions drawn from the analyses reflect random processes and also reduce problems such as multicollinearity, interference from unsystematic factors, and heteroskedasticity (Greene 1993; Corlett 1990; King, Keohane & Verba 1994). Since some of the predictors and control variables may be correlated a large number of observations is necessary to estimate the relationships accurately. To account for the multilevel nature of these data and to control for possibly confounding trending over time, I use cross-sectional, time-series logistic regression to evaluate the hypotheses at the micro and meso levels<sup>3</sup>. I evaluate the macro hypotheses cross-sectional ordinary least-squares regression model with fixed effects and robust standard errors.<sup>4</sup>

### **Dependent Variable**

The dependent variable "Integration Support," adapted from the EB dataset, is the response to the following question, which has consistently appeared on EB surveys from 1973-2011. The response to this question speaks to the individual's level of satisfaction and support for unification and its effects. It has been empirically substantiated that the answer to this question captures the respondents' support for integration and is the standard measure of

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<sup>&</sup>lt;sup>2</sup> The following nations are included within this analysis: France, Belgium, Netherlands, Germany, Italy, Luxembourg, Denmark, Ireland, United Kingdom, Greece, Spain, Portugal, Finland, Austria, Sweden, and Norway (only 1990-96).

EB surveys from 1970-2002 can be accessed through the Manheim Trend File:

http://www.gesis.org/eurobarometer/topics-trends/eb-trends-trend-files/mannheim-eb-trend-file/. Surveys from 2003 and later (also accessible through the gesis website) were merged with the Manheim file to create a harmonized dataset from 1970-2011.

<sup>&</sup>lt;sup>3</sup> The micro and meso models include fixed effects for year and random effects for nation.

<sup>&</sup>lt;sup>4</sup> All of the full models including coefficients for our year dummy variables are located within the appendix.

integration support in the literature (Anderson & Reichert 1996; Anderson 1998; Carey 2002; Gabel 1998a, 1998 b; McLaren 2002; Olsson 2006; Dalton & Eichenberg 2007).

Generally speaking, do you think that <your Country's> membership in the European Community is...? (1) a good thing (2) neither/nor (3) bad thing

I have coded responses consistent with previous studies, transforming responses into a dichotomous measure of support (Ehin, 2001, Olsson 2006, Pérez-Nievas & Mata-López 2011). Respondents who saw EU membership as a 'good thing' are coded as 1 and all other responses as 0, allowing us to distinguish "firm supporters of integration" from others (Kentmen 2008).<sup>5</sup>

#### **Predictors**

To test the political values theory, I use Inglehart's survey question created expressly for assessing postmaterialist value levels (Inglehart 1990). Respondents were asked to which of the following should be his or her nation's top two goals:

- (a) maintaining order
- (b) fighting rising prices
- (c) giving people more say in important government decisions
- (d) protecting freedom of speech

Respondents choosing (a) and (b) as their first and second choices were coded 1 for 'materialist,' while respondents choosing (c) and (d) were coded 3 for 'postmaterialist.'

Those who chose a mix of materialist and postmaterialist goals, e.g., (a) and (c), are coded 2 for 'mixed-materialist.'

<sup>&</sup>lt;sup>5</sup> In the macro-level model, this variable is continuous and is the mean of responses by nation in a given year.

<sup>&</sup>lt;sup>6</sup> It should be noted that Inglehart's index has been criticized for its contextual sensitivity, i.e., its arguably outdated "inflation" priority, and that possible postmaterial trending is more likely an artifact of decreasing concern regarding inflation. Other research, however, has demonstrated a true trend toward postmaterialism even in nations where inflation and crime rates are serious concerns (Hansen & Tol 2003).

I operationalize the *Cognitive, Political Mobility* variable in a manner consonant with previous works, combining one's educational level with responses to the EB question regarding frequency of political discussion listed below (Janssen 1991). Dummy variables representing each level of the indicator are featured within the models, using level 1 as the baseline of comparison.

Do you ever find yourself persuading your friends, relatives, co-workers to share your views? (1) Never (2) Rarely (3) From time to time (4) Often

Cognitive, Political Mobility level is coded as follows:

- 1: 16 years or less of schooling & discuss politics 'never'
- 2: 16 years or less & discuss politics 'rarely'; 17-20 years or less of schooling & discuss politics 'never'
- 3: 16 years or less & discuss politics 'time to time'; 17-20 years or less & discuss politics 'rarely'; 21 years or more of schooling older & discuss politics 'never'
- 4: 16 years or less & discuss politics 'often'; 17-20 years or less & discuss politics 'time to time'; 21 years or more & discuss politics 'rarely'
- 5: 17-20 years or less & discuss politics 'often'; 21 years or more & discuss politics 'time to time'
- 6: 21 years or more & discuss politics 'often'

The *Postwar Cohort* variable is also coded consistent with Janssen's, with those born after 1945 coded as 1 and those before 1931 as 0. I also include a dummy variable that consists of individuals born between 1932 and 1944 called *Interwar Cohort*. Because these individuals' formative experience largely occurred within the context of war, we do not have solid expectations about their likelihood of integration support (Jannsen 1991).

The *Post-1975 Cohort* variable is coded 1 for those born in or after 1975 and 0 for those born in 1974 and before.

In the macro model, *Postmaterialism* and *Cognitive*, *Political Mobility* are the mean values for each nation in a given year.

#### **Control Variables**

In addition to the aforementioned predictors, I include several variables that are traditionally featured in European integration research and are designed to control for potentially confounding factors. *Female* is a dummy variable coded 1 for females and 0 for males. Research has consistently found females to be less supportive of integration efforts than males (Inglehart 1990; Morgan & Wilcox 1992; Caldeira & Gibson 1995; Gabel 1998a; Nelsen & Guth 2000). I also include dummy variables representing the respondent's *Age Segment*, in which the individual is coded 1 for 55-and-over, 2 for 40-54, 3 for 25-39 and 4 for 15-24 years of age.

I include dummy variables for the following occupational groups:

\*Professionals/Executives & Labor.\(^7\) Ideology is based upon the respondents' self-placement on the left-to-right ideological spectrum. Respondents on the 'left' are coded as 1, 'center' as 2 and 'right' as 3.

Eurozone Member is a dummy variable where 1 indicates that the individual's home nation has formally joined the EMU and 0 for those living within Great Britain, Sweden and Denmark, which are a part of the EU but not EMU. Net Contributor indicates whether the individual's nation is a net contributor to or recipient of the EC/EU. Net Contributor is coded as 1 and Net Recipient as 0.8

Within the macro model, I control for objective macroeconomic indicators *GDP Growth, Inflation* and *Unemployment,* which are typically included within macro-level

<sup>7</sup> Income information was no longer included on EB surveys after 2004 and is not included within the tables presented. It should be noted, however, that the models were run with the inclusion of income and the results remained consistent with those the tables featured.

<sup>&</sup>lt;sup>8</sup> The European Commission categorizes the following nations as "Net Recipients": Ireland, Spain, Portugal, Greece and "Net Contributors": France, Belgium, Germany, Netherlands, Italy, Luxembourg, Denmark, United Kingdom, Finland, Sweden, Austria.

analyses (Dalton & Eichenberg 1993, 2007). The macroeconomic indicators come from OECD measures of national-level *Inflation*, *Unemployment* and *GDP*.<sup>9</sup>

#### ANALYSIS & DISCUSSION

The results of our cross-sectional panel analyses provide empirical confirmation for the majority of Inglehart's Silent Revolution hypotheses with regard to integration support.

The results for each level are discussed in the sections below, beginning with the micro, then meso and concluding with the macro findings.

Micro Level At the micro-level, the models confirm both *Postmaterialism* and *Cognitive, Political Mobility* as significant, positive determinants of individual integration attitudes. Table 1 features the coefficients from our regression analysis in column one and their associated odds ratios in column two. Figures 1 and 2 display the mean of *Integration Support* for each level of *Postmaterialism* and *Cognitive, Political Mobility*, respectively. While holding other factors constant, *Postmaterialism* is positively related to *Integration Support* at a significance level of p<.0001. A one-unit increase in *Postmaterialism* raises the odds of *Integration Support* around 1.1 times.

The model also demonstrates a direct relationship between *Cognitive*, *Political Mobility* level and *Integration Support*. Compared to the baseline group, i.e., Cognitive, Political Mobility Level 1, the odds of integration support among individuals with a mobility level of 2 are around 1.1 times higher. The odds of support increase to 1.2 times more likely for those of mobility level 3 and to 1.5 for individuals of level 4. Finally, the odds of

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<sup>&</sup>lt;sup>9</sup> GDP - real gross domestic product percentage change over previous year; Inflation rate - Percentage change over previous year; Unemployment -Harmonized unemployment rate as percentage of total labor force.

<sup>&</sup>lt;sup>10</sup> The models were also run using a disaggregated Cognitive, Political Mobility variable, in which education and political discussion frequency are separated. The alternate model specification had a negligible impact on the level, direction and significance of the coefficients. This model is included within the Appendix.

*Integration Support* among individuals of Cognitive, Political Mobility levels 5 and 6, are around 1.6 times greater than the baseline group.

Contrary to Janssen's "conjecture" that integration support among postmaterialists is more likely a function higher cognitive, political levels than value orientation, the model demonstrates that postmaterialism is an independent determinant of integration support. Of course, the results do not suggest that value orientation and cognitive, political levels are the only or strongest determinants of integration attitudes. They do, however, demonstrate that at the micro level, while controlling for a number of other factors, *Postmaterialism* and *Cognitive, Political Mobility* are meaningful predictors of support.

Meso Level The results of our meso or age-cohort analysis are presented in Tables 2 and 3. Table 2 includes models 2-4, which do not include the *Postmaterialism* predictor, while Table 3 features models 5-7 with *Postmaterialism*. The findings produce conflicting results for our *Postwar Cohorts* variable. In model 2, this predictor is positively related to the dependent variable, though the coefficient value is small at .0200. The *Interwar Cohort* is significant and negatively associated with *Integration Support*, however, the odds of support for this group is only two percent lower than those not within this cohort. When including the *Postmaterialism* predictor in model 5, the *Interwar Cohort* loses significance, and the *Postwar Cohorts* variable becomes negatively associated with *Integration Support*. That is, once we take into account individual value orientation, the positive relationship between *Postwar* generations and *Integration Support* is lost. Thus, while we cannot confirm Inglehart's hypothesis regarding *Postwar Cohorts*, the sensitivity of this group's relationship with support revealed within the tests is not too surprising given the disproportionately small number of respondents within the dataset born in the prewar era.

The models provide solid support for our hypothesis regarding the *Post-1975 Cohort*. In both models 3 and 6 *Post-1975 Cohort* is statistically significant at a level of p< .0001 and positively related to *Integration Support*. Even while controlling for Postmaterialism, the odds of support among individuals of this generation are around 1.5 times greater than of those of earlier ones.

Although the test results demonstrate the expected relationship between the *Post-1975 Cohort* and *Integration Support*, the findings of models 4 and 7, which includes our *Age Segment* variables make it impossible to determine with a great degree of certainty that life-cycle effects are not in fact driving the relationship between this cohort and support. Consistent with the micro model, *Age Segment 15-24* is more likely to be supportive of integration than other segments at a significance level of p<.0001. The odds of support for *Age Segment 15-24* are around 1.2 times higher in model 4 and 1.1 times in model 7 than the baseline group. Since the dataset extends through the year 2011, the vast majority of individuals within the *Post-1975 Cohort* also fall within *Age Segment 15-24*. Thus, the positive relationship between the *Post 1975 Cohort* and *Integration Support* could be a function of life-cycle effects, where young adults, for reasons outside the scope of this research effort, are significantly more supportive of integration than those at a later stage in life.

Whether generational or life-cycle effects potentially drive attitudes could have markedly different implications for integration support in the future. If Inglehart's generational thesis is correct, as long as the European Union and its constituent institutionary parts remain consolidated or perhaps even tighten further, then we should expect support to remain solid, if not increase. However, if life-cycle effects are more at work, the future may

likely hold a decline in support. That is, with Europe's low fertility rate and growing life expectancy, a larger proportion of the population will fall within the 55-or-older age range (Eurostat Release 2011). If it is the case that, for whatever reasons, individuals 55 and older are generally less supportive of integration, we should expect the balance of integration attitudes to tip toward the negative side. Clearly more research should be dedicated to investigating which, if either, generational or life-cycle effects guide integration attitudes.

The results of the meso models also reaffirm our micro level findings regarding *Postmaterialism* and *Cognitive*, *Political Mobility's* relationship with *Integration Support*. In all three of the meso models(Table 3, models 5-7), Postmaterialism is statistically significant at p<.0001 and positively related to the likelihood of Integration Support. Consistent with the micro model, the meso tests indicate that a one-unit increase in postmaterial value level raises the odds of support 1.1 times. Hence, even when controlling for generational factors, value orientation appears to have an independent effect on the likelihood of integration support at the individual level.

In addition, the models again demonstrate a direct relationship between *Cognitive*, *Political Mobility* level and *Integration Support*. Compared to the baseline group, i.e., Cognitive, Political Mobility Level 1, the odds of integration support among individuals with a mobility level of 2 are around 1.1 times higher. The odds of support increase to 1.2 times more likely for those of mobility level 3 and to 1.5 for individuals of level 4. Finally, the odds of *Integration Support* among individuals of Cognitive, Political Mobility levels 5 and 6, are around 1.6 times greater than the baseline group when also controlling for *Postmaterialism* and 1.8 times greater without it.

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<sup>&</sup>lt;sup>11</sup>For more information regarding the EU's demographic trends please see: http://epp.eurostat.ec.europa.eu/cache/ITY\_PUBLIC/3-01042011-BP/EN/3-01042011-BP-EN.PDF.

Macro Level The results of the macro level analysis are presented in Table 4. The macro analysis investigates the extent to which differences in support among, as well as shifts within, the sixteen nations correspond with changes in aggregate levels of value orientation and cognitive, political skill levels. According to Inglehart's theory, a more postmaterialist value climate and higher level of cognitive, political mobilization result in a higher degree of public support for integration. The findings of our cross-sectional, timeseries regression model confirm the hypothesis regarding *Cognitive*, *Political Mobility* and *Integration Support*. *Cognitive*, *Political Mobility* is a statistically significant and positive predictor of *Integration Support*, with a coefficient of .3027 and significance level of p<.0001. It does appear that societal rises in cognitive, political levels are accompanied by an increase in positive integration attitudes.

The tests, however, do not demonstrate value orientation as a significant determinant of integration attitudes at the aggregate level. While holding other factors constant, the *Postmaterialism* indicator fails to achieve statistical significance in our model. The results from a bivariate analysis of the relationship between aggregate *Postmaterialism* and *Integration Support*, however, indicate a positive association between this predictor and support with a coefficient of .2875 and significance level at p<.0001 (Table 5). Further statistical analyses reveal that while there is significant variation in postmaterial levels across the nations, once we control for *Cognitive*, *Political Mobility*, which is highly correlated with *Postmaterialism* at .67, the relationship between *Postmaterialism* and *Integration Support* is lost at the aggregate level.<sup>12</sup> The tests thus suggest that the independent impact of value orientation with regard to integration attitudes is likely limited to the micro level, due to the

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<sup>&</sup>lt;sup>12</sup> The analysis of variance results (ANOVA) for postmaterialism across the nations, as well as the full correlation matrix for the macro model is located within the appendix.

high degree of correlation between aggregate *Postmaterialism* and *Cognitive*, *Political Mobility*.

#### **CONCLUSION**

The primary purpose of this article was not to substantiate Inglehart's Theory as the dominant explanation of integration support, but to fill a major gap in the literature. This study answered Janssen's "plea" for more rigorous statistical analysis of Inglehart's Silent Revolution Theory using cross-sectional, panel data. Expanding Inglehart and Janssen's data from four nations to sixteen EU member nations over a period of more than three decades enables us to perform an adequate evaluate of the Silent Revolution Theory with regard to European integration support. While not all of the hypotheses are confirmed in the analysis, several key aspects of Inglehart's theory are substantiated.

At the micro level, the tests confirmed both Inglehart's hypotheses regarding the impact of value orientation and cognitive skills on integration attitudes. Individuals with higher cognitive, political mobility levels are more supportive of integration than those of lower levels. The model results demonstrate a robust relationship between cognitive, political mobility and integration support at the individual level. Contrary to Janssen's finding that integration support among postmaterialists is more likely a function of higher cognitive, political skills, our analyses indicate postmaterial value orientations to be an independent, significant predictor of positive integration attitudes. Again, across the models, the direct relationship between postmaterialism and integration support among individuals is robust. This is not to say that value orientation and cognitive, political skills are the primary determinants of support, but rather that there is a confirmed, statistically significant positive relationship between these factors and favorable integration attitudes. Indeed, it is reasonable

to expect that value orientation and political skills interact with a number of other potential factors, such as occupation or ideology, to form an individual's preferences regarding integration-related issues.

The results of our meso or age-cohort tests produce support for one of our two associated hypotheses. The models produce a very weak relationship between the postwar cohorts predictor and integration support. The results show that once we account for the individual's postmaterial orientation, postwar generations appear to be less supportive, albeit minimally, than their prewar counterparts. Of course, given the disproportionately small amount of individuals that fall into the prewar cohort compared to the postwar, these results are not too surprising.

The tests do, however, substantiate the post-1975 cohort as being more supportive of integration than previous ones. Unfortunately, we cannot conclusively attribute this relationship to Inglehart's generational thesis, as our findings of the age segment control variable could also explain the aforementioned relationship. Our analysis highlights the importance of future research into the issue of whether generational or life-cycle effects potentially drive integration attitudes, as the implications of each vary considerably. That is, if generational shifts are at work, then integration support in the future should remain relatively solid. If, however, life-cycle effects are actually at hand, then a decline in support may be in store as a disproportionate amount of the European population falls within the less supportive, 55-and-older life stage.

Finally, at the macro level the tests confirm the relationship between aggregate cognitive, political mobility and integration attitudes. Higher societal levels of cognitive, political mobility are positively related to integration support. Value orientation at the

aggregate level, however, is not demonstrated to be an independent predictor of integration attitudes, as once cognitive, political mobility levels are accounted for, postmaterialism loses statistical significance. The tests suggest that while cognitive, political mobility may carry an impact on integration attitudes at the micro and macro levels, value orientations may be limited to simply that of the individual. Thus, while the tests may not be able to prove the occurrence of Inglehart's revolution, they are finally able to lend empirical support to several key components of his theory.

Table 1: Micro Model

Predictors	Coef.	Odds Ratios.
Postmaterialism	.0648***	1.1
1 Ostillater lainsin	(.0063)	1.1
Cognitive, Political Mobility	.0950***	1.1
Level 2	(.0151)	
Level 3	.2538***	1.2
	(.0147)	
Level 4	.3871***	1.5
	(.0158)	
Level 5	.4902***	1.6
	(.0194)	
Level 6	.4702***	1.6
	(.0282)	
Professionals/Executives	.4042***	1.5
	(.0204)	
Labor	3043***	.7
	(.0107)	
Ideology	.2444***	1.3
	(.0051)	
Net Contributor	.0812***	1.1
	(.0106)	
Eurozone Member	1.107***	3.0
	(.0111)	
Female	2303***	.8
	(.0079)	
Age Segment	.0031	1.0
40-54	(.0108)	
25-39	0350*	1.0
17.01	(.0108)	1.0
15-24	.0484***	1.0
	(.0124)	
cons	-1.031***	.4
1 247214	(.0385)	
obs 347214 Wald chi2 (36)24309.57		
Prob > chi2 (30)24307.37		
Log likelihood -209548.5		

Time-series, cross-sectional logistic regression, with standard errors in parentheses, using membership support as the dependent variable \*\*\*p<.001, \*\*p<.05

Table 2: Meso Level Models: Model 2- Postwar Cohorts, Model 3- Post 1975 Cohort, Model 4- Age Segments

	Model 2	Model 2	Model 3	Model 3	Model 4	Model 4
	Postwar	Odds	Post 1975	Odds	Age	Odds
Predictors	Cohort	Ratios	Cohort	Ratios	Segments	Ratios
	.0200**					
Postwar Cohorts	(.0062)	1.1	-	-	-	-
	0230*					
Interwar Cohort	(.0090)	.9	-	-	-	-
			.3898***			
Post 1975 Cohort	-	-	(.0134)	1.5	-	_
					.0008	
Age Segment 40-54	_	_	_	_	(.0071)	1.0
					0039	
25-39	_	_	_	-	(.0071)	1.0
					.1684***	
15-24	_	_	_	-	(.0084)	1.2
Cognitive, Political	.1217***		.1212***		.1158***	
Mobility Level 2	(.0114)	1.1	(.0107)	1.1	(.0107)	1.1
	.2954***		.2861***		.2806***	
Level 3	(.0111)	1.3	(.0104)	1.3	.0104)	1.3
201010	.4650***	110	.4520***		.4420***	1.0
Level 4	(.0117)	1.5	(.0110)	1.5	(.0112)	1.5
Level 1	.5904***	1.0	.5727***	1.0	.5654***	1.0
Level 5	(.0134)	1.8	(.0132)	1.8	(.0133)	1.8
Levers	.5934***	1.0	.5757***	1.0	.5748***	1.0
Level 6	(.0193)	1.8	(.0187)	1.8	(.0187)	1.8
Professionals/	.3511***	1.0	.3664***	1.0	.3772***	1.0
Executives	(.0144)	1.4	(.0137)	1.4	(.0138)	1.4
LACCULIVES	3292***	1,-	3212***	1.4	3223***	1.4
Labor	(.0077)	.7	(.0072)	.7	(.0074)	.7
Labor	.1412***	• /	.1444***	• /	.1449***	• /
Ideology	(.0035)	1.2	(.0033)	1.2	(.0033)	1.2
ideology	3190***	1.4	2900***	1.4	2857***	1.4
Net Contributor	(.0079)	.7	.0078)	.7	(.0078)	.8
THE COMMINUION	.7640***	• 1	.7656***	• /	.7653***	.0
Eurozone Member	(.0081)	2.1	(.0080)	2.2	(.0080)	2.2
Parozone Member	2636***	4.1	26011***	4.4	2596***	۷.۷
Female	(.0054)	.7	(.0052)	.8	(.0052)	.8
1 CHIAIC	5277***	.1	5679***	.0	6065***	.0
aona		6		.5	6065*** (.0265)	.5
obs	(.0357) 682140	.6	(.0353) 736665	.3	736665	.3
Wald chi2	(46) 39896.80		(47)43237.15		(49) 42927.71	
Prob > chi2	0.0000		0.0000		0.0000	
Log likelihood	-427820.1		-462399.22		-462558.63	

Time-series, cross-sectional logistic regression, with standard errors in parentheses, and using membership support as the dependent variable \*\*\*p<.0001, \*\*p<.001, \*p<.001, \*

Table 3: Meso Level Models w/ Postmaterialism

D J. A			M. 116	M. J.16	M-1.17	N/- 1 1 7
Predictors	Model 5	Model 5	Model 6	Model 6	Model 7	Model 7
w/postmaterialism	Postwar	Odds	Post 1975	Odds	Age	Odds
	Cohort	Ratios	Cohort	Ratios	Segments	Ratios
Postwar Cohort	0220*	.9	-	-	-	-
	(.0093)					
Interwar Cohort	0019	.9	-	-	-	-
	(.0130)					
Post 1975 Cohort	-	-	.4353***	1.5	_	-
			(.0457)			
Age Segment	_	-	_	_	.0031	1.0
40-54					(.0108)	
25-39	_	-	_	-	0350	.9
20 0)					(.0108)	.,
15-24	_	_	_	_	.0484***	1.0
IU MT					(.0124)	1.0
Postmaterialism	.0735***	1.1	.0658***	1.1	.0648***	1.1
i osumatei iansin	(.0065)	1.1	(.0062)	1.1	(.0063)	1.1
C	.0953***	1.1	.0959***	1.1	.0950***	1 1
Cognitive, Political		1.1		1.1		1.1
Mobility Level 2	(.0158)	1.2	(.0151)	1.0	(.0151)	1.0
Level 3	.2585***	1.3	.2543***	1.3	.2538***	1.3
	(.0153)		(.0146)		(.0147)	
Level 4	.3966***	1.5	.3895***	1.5	.3871***	1.5
	(.0165)		(.0156)		(.0158)	
Level 5	.4895***	1.6	.4909***	1.6	.4902***	1.6
	(.0201)		(.0193)		(.0194)	
Level 6	.4644***	1.6	.4667***	1.6	.4702***	1.6
	(.0292)		(.0282)		(.0282)	
Professionals/	.3952***	1.5	.3960***	1.5	.4042***	1.5
Executives	(.0215)		(.0203)		(.0204)	
Labor	3077***	.7	3088***	.7	3043***	.74
	(.0111)		(.0104)		(.0107)	
Ideology	.2385***	1.3	.2455***	1.3	.2444***	1.3
<b>9</b> 1	(.0053)		(.0051)		(.0051)	
Net Contributor	.0433***	1.0	.0796***	1.0	.0812***	1.1
	(.0108)		(.0106)		(.0106)	
Eurozone Member	1.079***	2.9	1.107***	3.0	1.107***	3.0
Larozone Member	(.0114)		(.0111)	5.0	(.0111)	5.0
Female	2342***	.8	2322***	.8	2303***	.8
r ciliaic	(.0082)	.0	.0078)	.0	(.0079)	.0
aona	-1.204***	.3	-1.029***	.4	-1.031***	.4
cons	· -	.3		.4		.4
aha	(.0408)		(.0384)		(.0385)	
obs Wald chi2	(35) 22344.53		347214 (34)24352.34		347214 (36) 24309.57	
Prob > chi2	0.0000		0.0000		0.0000	
Log likelihood	-194436.63		-209527.99		-209548.5	
Time-series, cross-section		assion with		. i		

Time-series, cross-sectional logistic regression, with standard errors in parentheses, and using membership support as the dependent variable \*\*\*p<.001, \*\*p<.001, \*p<.05

Table 4: Macro Model

Predictors	Coeficient
Cognitive, Political	.3207**
Mobility	(.0842)
Postmaterialism	.0094
	(.0584)
Ideology	.1627
	(.1697)
GDP	.0116*
	(.0036)
Inflation	0002
	(.0026)
Unemployment	0063
	(.0043)
Age	0258
	(.0326)
_cons	2226
	(.4037)
Number of obs 240	
Prob > F 0.0008	
$R^2$ within 0.3081 between = 0.0055	
overall = $0.1375$	

OLS time-series cross-sectional, fixed effects estimates with robust standard errors in parentheses. Dependent Variable-Membership Support \*\*\*p<.001, \*\*p<.05

Table 5: Bivariate Analysis between Aggregate Postmaterialism and Integration Support

Predictors	Coef.
Postmaterialism	.2875**
	(.0888)
Cons	.0954
	(.1611)
Obs 312	
R-sq: within 0.1271	
between 0.1033	
overall 0.0081	
Prob > F 0.0048	

Figure 1: Means of Integration Support by level of Postmaterialism

Figure 2: Means of Integration Support by level of Cognitive, Political Mobility

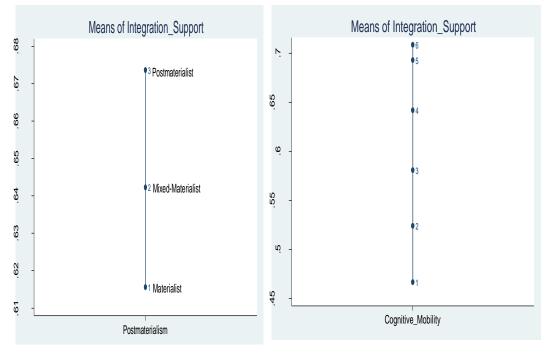


Figure 3: Nations and years included in EB dataset

1 igure 5. Nations and years included in LD dataset		
NATION	YEARS	
France	1970-2011	
Belgium	1970-2011	
The Netherlands	1970-2011	
Germany West	1970-2011	
Italy	1970-2011	
Luxembourg	1973-2011	
Denmark	1973-2011	
Ireland	1973-2011	
Great Britain	1973-2011	
Northern Ireland	1974-2011	
Greece	1980-2011	
Spain	1985-2011	
Portugal	1985-2011	
Germany East	1990-2011	
Norway	1990-1995	
Finland	1993-2011	
Sweden	1994-2011	
Austria	1994-2011	

#### **CHAPTER 2**

## INSTITUTIONS & INDIVIDUAL PREFERENCE CHANGES: An Evaluation of the EMU's Impact on Individual Integration Preferences

The proceedings of every individual's day are in some way an artifact of the particular set of institutions under which he or she lives. Broadly conceived of as the mechanisms that structure and regulate all social interaction, institutions can range from customs, traditions and taboos to constitutions, laws and political bodies. Institutional scholarship represents a cornerstone of social science scholarship, and this paper seeks to contribute the "internal" side of this research area, which focuses on the dynamic between institutions and individuals. I will evaluate whether the institutional establishment of the Economic and Monetary Union (EMU) had an impact on public opinion of the process of European unification. If, indeed, shifts in public integration opinion followed the EMU's establishment, I then explore whether those changes run parallel with the predictions of integration research's two dominant theoretical branches: utilitarian economic explanations, wherein opinions follow in the direction of economic gains or losses, and constructivist/identity-based accounts, in which opinion shifts are the result of socialization processes.

The formation of the European Union and its constituent institutionary parts provides a unique natural experiment wherein this issue can be evaluated. The European Union's development has been a well-documented process, with by-country polls charting public opinion on a broad range of social, political and economic trends, and policies having been conducted since the 1970s. While a strong body of research explores the factors that drive

positive or negative views of European integration, many of the rational material studies were conducted before the official establishment of the EMU or during its infancy. In the decade since the EMU's establishment, the region has experienced remarkable economic growth as well as turmoil. Given the significance and amount of public opinion data that have recently become available, further exploration of this topic represents a worthwhile research effort.

My data come from two large-scale, cross-national and longitudinal surveys: the Eurobarometer (1973-2011) and European Values Surveys (1990-2009). I have the luxury of quasi-control cases - Britain, Sweden and Denmark - as these nations are a part of the European Union but have chosen to remain outside of the EMU. To evaluate whether the EMU's establishment had an impact on integration views and to determine whether the shifts seem to vary among certain, identifiable segments of society, I compare support among groups in the period prior to the EMU's establishment (pre-period) to that of the years following its introduction (post-period). The results will hopefully contribute to the empirical side of this scholarship and perhaps lend greater understanding of the dynamic between institutions and individuals.

### **Constructivist Explanations of Individual Integration Preference Changes**

Following the Great Wars, European regional integration efforts were started in hopes that this process would create such economic prosperity that the potential for conflict among the states would be erased. Ultimately, the process was anticipated to give rise to a single political, cultural and economic European entity. Supra-national institutional establishments (informal and formal) coupled with incremental policy changes were to be the wheels of this consolidation. Through their auspices, it was anticipated that individual perceptions and

preferences would be reshaped so that collectively defined identities and interests would eventually supplant national, self-interested ones.

With its implicit belief in the transformative capacity of institutions, the integration grand plan thus rests on constructivist-like logic, wherein the cultivation of collective beliefs and norms possesses the causal capacity to transform individual identities, opinions, interests and preferences fundamentally. Constructivism's ideational approach, similar to sociohistoricalism's "logic of appropriateness," represents one of the two main theoretical explanations on the issue of public opinion changes. This approach is premised upon the primacy of social facts, which are the product of the collectively held beliefs that remain only because everyone in the society honors their existence (Lukes 1973; Abdelal, Blyth, & Parsons 2010). Social facts may also be referred to as norms or "standards of appropriate behavior for actors with a given identity" imbued with causal capacity (Finnemore & Sikkink 1998).

According to this approach, individual preferences are endogenous to social constructs and are derived according to a "logic of appropriateness," or in alignment with the prevailing set of norms and conventions which define their correctness in terms of social propriety (March & Olsen 1984, 2004). Hence institutions are essentially a manifestation of the social context and serve as a as a purveyor of individual roles, preferences, and identity (Asch 1952; Giddens 1984). As Aaron Wildavsky states, preferences are the product of simply two questions, "who am I and what shall I do" (1989). The fusion of beliefs, norms and institutions effectively produces a causal mechanism through which individual interests are constructed. Prominent constructivist scholar Alexander Wednt argues that interests are social constructs, not material givens, and depend on "what is desired…or beliefs about how

to meet needs," and thus vary according to the particular social facts that surround the individual (1999). He further challenges the significance of material forces and factors within causal processes, instead contending that the content and distribution of ideas are what confer utility and power and hence drive the construction of interests.

The European integration process has served as the theoretical and empirical platform for a great deal of constructivist and sociohistorical scholarship exploring the causal capacity of institutions over individual attitudes and preferences (Deutsch 1957; Haas 1958; Inglehart 1971a, 1971b, 1977, 2008; Inglehart, Rabier & Reif 1991). Ronald Inglehart's "Silent Revolution" theory represents arguably one of the most seminal works in this area. According to his theory, individual attitudes and preferences are a product of the institutional context within which one's formative years take place, as it is during this time the individual is instilled with certain values and attitudes that tend to persist throughout his or her lifetime (Inglehart 1971a, 1971b, 1977, 2008). Thus he hypothesized that generations raised within the integration window would be imparted with values that steadily orient preferences toward non-traditional, postmaterial, collective priorities and away from traditional, materialist, individualistic ones. The more consolidated the institutions of integration characterizing the environment in which one grows up, the more supportive of integration he or she should be. A key catalyst in his intergenerational transformation was the improvement of conditions within a peaceful and prosperous Western Europe for the development of the individual's cognitive capacity. Solid compulsory educational systems, advances in higher education opportunities and in mass communication, according to Inglehart, facilitated the individual's development of cognitive, political skills needed to comprehend abstract processes like that of regional integration. He reasons that because information concerning European

integration and supra-national politics is at a high level of abstraction, a heightened degree of cognitive, political capacity is needed to process and interpret relevant political messages and events. Accordingly, individuals intellectually equipped to handle abstract dynamics and attune to political matters are less threatened by the process of integration, and are consequently more likely to be supportive of it than their peers of lower cognitive, political endowments (Inglehart 1970a, 1977; Inglehart, Rabier & Reif 1991).<sup>13</sup> Thus over time as younger, cognitively mobilized, postmaterial generations replace older, materialist generations with lower cognitive mobility levels, integration support at the aggregate level should steadily increase (Inglehart 1970, 1971a, 1971b, 1978; Inglehart, Rabier & Reif 1991; Janssen 1991).

Other constructivist-related accounts, such as the work of Hooghe and Marks, suggest that the most decisive institutional byproduct vis-à-vis preferences is identity as opposed to utility (2002, 2004). They argue that national identity and its associated effects on policy attitudes are "continuously constructed through socialization and political conflict" cued by political elites (Hooghe & Marks 2004; Straty & Triandafyllidou 2003; Medrano 2003). Their research demonstrates that political cues from elites on the far left and far right have cultivated a sense of "exclusive" national identity among their partisans in recent decades. As a result of exclusive identity orientation, partisans on the far left and right are less likely to hold positive European integration attitudes (Hooghe & Marks 2004, 2006, 2008). 14

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<sup>&</sup>lt;sup>13</sup> Even though higher education and attention levels may better enable the individual to perceive the potential costs of integration, these costs are offset by the cosmopolitan perspective and priorities that an advanced degree of cognitive mobility also cultivates (Inglehart 1970a, 1971b; Inglehart, Rabier & Reif 1991, Mansfield & Mutz 2008).

<sup>&</sup>lt;sup>14</sup> Regarding identity, elite cueing and attitudes, see also Steenbergen, Edwards & de Vries 2007; Hobolt 2007; Medrano 2004).

Thus, according to constructivist explanations, socialization processes involving cognitive mobility level, value orientation and identity by way of partisanship can lead to changes in individual integration preferences. We should expect the likelihood of integration support among those of high cognitive mobility levels and postmaterial values to be stronger in the post-EMU period as the proportion of the population possessing such characteristics increases over time, while support should be weaker during this period among individuals on the far left or right ends of the partisan spectrum.

Hypothesis 1: The likelihood of integration support will increase among Postmaterialists<sup>15</sup> in the post-EMU period.<sup>16</sup>

Hypothesis 2: The likelihood of integration support will increase among those of High Cognitive Mobility<sup>17</sup> in the post-EMU period. <sup>18</sup>

Hypothesis 3: The likelihood of integration support will decrease among Far Left and Far Right<sup>19</sup> Partisans in the post-EMU period.<sup>20</sup>

When you get together with friends, would you say you discuss political matters frequently, occasionally or never?(1) Never (2) Occasionally (3) Frequently

The EVS variable combines the previous question and the following where scores of 6 or 7 were coded 1 for High Cognitive Mobility and scores of 5 or below as 0.

How interested in politics are you? (1) Not at all interested (2) Not very (3) Somewhat (4) Very

<sup>&</sup>lt;sup>15</sup> The Postmaterialists predictor is a dummy variable where 1 represents those who were classified as Postmaterialists according to the EVS and 0 if Materialist or Mixed-Materialist.

<sup>&</sup>lt;sup>16</sup> Because in the post-EMU era EB surveys only featured this question in 2005 and 2008, this variable is only included within the EVS model.

<sup>&</sup>lt;sup>17</sup> Consistent with the literature, in the EB models this variable is operationalized by adding the responses from the questions below then creating a dummy variable where scores of 6 or 7 were coded 1 for high cognitive mobility and scores of 5 or below as 0. *Do you ever find yourself persuading your friends, relatives, co-workers to share your views?* 

<sup>(1)</sup>Never(2) Rarely (3) From time to time (4) Often

<sup>&</sup>lt;sup>18</sup> Alternate codings of Cognitive Mobility combining education and political discussion were also included in the models but did not change the direction or significance of results.

<sup>&</sup>lt;sup>19</sup> The Far Left Partisans variable consist of individuals who self-placed themselves as a 1 or "very left" on a 5 point left-right ideological scale. Far Right Partisans consists of those who self-placed themselves as a 5 or "very right" on a 5 point left-right ideological scale.

<sup>&</sup>lt;sup>20</sup> A comparable variable, however, could not be constructed from the EVS data.

## Rational-Material Explanations of Individual Integration Preference Changes

Alternate explanations within the rational-material theoretical tradition assume that public preferences turn on utility gains or losses. According to this approach, preferences embody their expectations of the impact that a policy or event will have on their income and most commonly hinge on occupational opportunities or losses. That is, this approach is predicated on utilistic implications and as such, individual preferences are fixed and exogenous.

Material-based scholarship proffers that institutions emerge to help self-interested individuals achieve gains through social interaction. Thus, institutions lack causal capacity and are simply the strategic instruments developed to facilitate the realization of collective benefits (Commons 1968; Shepsle 1975, 1979; Ostram 1980; North 1990, 1991).

In contrast to the constructivist approaches, rational-material works do not accept the possibility of transforming the individual's primary interest into anything beyond survival by way of utility. They do not, however, deprive institutions and other social facts from having an impact on individual opinions, actions and preferences. Institutions exercise significant influence, as they set the parameters within which the individual must operate. In other words, they determine the rules of the game that the individual must abide by in his attempts to maximize utility.

Integration research employing a rational-material framework to evaluate the issue of public opinion change views unification institutions as a means for individuals to maximize individual interests first, and then collective gains result essentially by happenstance.

Accordingly, every individual prefers an institutional design that gives him strategic advantage with regard to other actors and thereby yields him higher distributional returns

(Knight 1992; Sebenius 1992; Oatley 1999). In effect, individuals adjust opinions in accordance with expectations about utility gains or losses.

Utility-based frameworks explain shifts in personal integration preferences as a function of the direction in which the EMU (or EMS) affected individual returns to utility. These studies largely focus on the EMU's chief role in the consolidation of regional economic liberalization, as it greatly advanced the Treaty of Rome's (1957) goal of an open and unfettered pan-European market (Gabel 1998a, Scheve 2003). The convergence of monetary policy fostered stability, thereby facilitating the free flow of goods, capital, and laborers across borders and the establishment of a single, unified economy. The broadened economic context meant that citizens were no longer oriented primarily within their domestic economy, but instead in an open regional economy where factors of production were allowed to move freely. Specialization across national economies was reduced and national comparative advantages based on Heckscher-Ohlin logic disappeared (Kim 1995). Individuals who were once associated with their country's abundant factor, those previously considered the "winners" from trade, thereafter faced more intense competition. The economic returns for an unskilled or skilled worker now depended on how well he could compete with his occupational/sector counterparts throughout the entire region, not just his fellow countrymen. The unified market's liberalization of product, capital, and labor flows reduced export transaction costs and thereby reduced the competitiveness of domestically oriented industries. Conversely, the increase in investment opportunities for financial capital owners through market liberalization suggests that the EMU's formation worked to the benefit of capital (Frieden 1991; Gabel & Palmer 1995; Scheve 2003).

International economic openness also favors those with high levels of human capital - citizens with relatively high income, education, and occupational skills- as they are more apt to adjust to economic changes in their employment sector and reorient themselves within diverse international settings (Gabel 1998a; Frieden, & Rogowski 1996; Scheve & Slaughter 1998; Hooghe & Marks 2004; Mayda & Rodrik 2005). In contrast, individuals with lower levels of education and expertise have lesser-valued and mutable skills and are therefore more expendable and limited in adaptability during economic downturns. The introduction of EU-wide competition for labor-intensive jobs enabled domestic firms to employ workers from any member state and adversely affected the competitiveness of manual laborers and those with lower human capital. The argument that those with higher human capital levels would fare better under the auspices of the EMU has been substantiated by public surveys wherein professionals consistently express the belief that integration creates more job opportunities, while manual workers see it as a source of greater job competition (Gabel 1998a).

Matthew Gabel has conducted one of the most comprehensive research efforts on European integration attitudes within the utility-material tradition (1998a). Using individual-level survey data on European integration, Gabel evaluates the assumption that individual preferences reflect the policy's distributional implications. Scrutinizing European public opinion data from 1975-1992 within a wide range of tests, Gabel provides evidence that individual integration attitudes are primarily a product of returns to personal income utility. Consistent with previous findings, he demonstrates that occupational skill levels form the dividing lines of opinion, with those in higher skilled or capital-intensive segments generally

more supportive of integration, as the process has afforded them greater income returns (Gabel & Palmer 1995; Scheve 1993, 1999, 2003; Scheve & Slaughter 2004).<sup>21</sup> Another utilitarian variant focuses on the relationship between partisanship, usually defined by class-based cleavages, and integration support (Franklin, Marsch, & Wlezien 1994; Franklin, Van der Eijk & March 1995; Inglehart, Rabier & Reif 1991). According to the class partisanship explanation, integration attitudes are a function the position of one's political party on the issue. Using Eurobarometer surveys from 1973-1989, Inglehart, Rabier & Reif (1991) found that supporters of left parties were less likely to be supportive of unification efforts than right parties, mirroring the positions of left and right parties on European integration. They reason that parties of the left have generally been more skeptical of integration than right-leaning parties which tend to interpret integration as a manifestation of capitalist forces (Garry & Tilley 2009; Brinegar, Jolly & Kitschelt 2004; Gabel 1998a, Wessels 1995; Budge, Robertson & Hearl 1987). 22 Others have explained increased support on the right as a result of the EMU's liberalization of the market and the European Central Bank's premium on inflation control, while the left has become less supportive as further integration is expected to dilute the welfare systems within social democratic states (Garry & Tilley 2009; Hooghe & Marks 2004; Brinegar, Jolly & Kitschelt 2004).

<sup>&</sup>lt;sup>21</sup> Other economically oriented explanations of integration preferences focus on overall national economic performance, either in terms of objective macroeconomic indicators, e.g., GDP growth, inflation and unemployment (Dalton & Eichenberg 1993, 2007), or subjective individual assessments of the nation's economic situation (Gabel & Whitten 1997).

<sup>&</sup>lt;sup>22</sup> Subsequent works have presented a more nuanced explanation of partisanship's impact on integration support, emphasizing the need to consider the "variety of capitalism" within the individual's home nation. In other words, they hold the ideological basis of integration attitudes as conditional upon economic context, being either liberal market or social democratic states (Garry & Tilley 2009; Hooghe & Marks 2004; Brinegar, et al 2004). Because integration is expected to dilute the welfare systems within social democratic states, such as Scandinavian countries, left-leaning individuals within these states are expected to be less supportive than their right-leaning peers. Conversely, the anticipated increase in redistribution within liberal market systems like Britain leads the left to be more supportive of integration than the right (Hooghe & Marks 2004; Brinegar & Jolly 2005).

According to rational-material explanations, implications of the EMU's establishment for personal utility returns could prompt changes in individual integration preferences. Specifically, support for integration should increase among those of high human capital, professionals/executives, and right-leaning partisans. Conversely, integration support should decrease among laborers and left-leaning partisans.<sup>23</sup>

Hypothesis 4: The likelihood of integration support will increase among those of High Human Capital<sup>24</sup> in the post-EMU period.

Hypothesis 5: The likelihood of integration support will increase among Professionals/Executives<sup>25</sup> in the post-EMU period.

Hypothesis 6: The likelihood of integration support will be positively associated with Partisanship<sup>26</sup> in the pre and post-EMU periods and should increase among Right Partisans and decrease among Left Partisans in the post-EMU period.

Hypothesis 7: The likelihood of integration support will decrease among Laborers in the post-EMU period.

## **Data & Methods**

To evaluate integration shifts and patterns following the establishment of the EMU in 1999, I use longitudinal data from the Eurobarometer ranging from 1973-2011 as well as the European Values Survey from 1990-2009. Both datasets span a great deal of time and feature a wide variety of individual information, from demographic to public opinion trends. Large datasets mitigate the possibility that the conclusions drawn from the analyses reflect

<sup>&</sup>lt;sup>23</sup> Unfortunately, the EVS model does not include this variable, as these surveys have not consistently included a question on personal partisanship or ideology.

<sup>&</sup>lt;sup>24</sup> High Human Capital is a dummy variable where 1 represents those with 21 years or more of education and in the third or fourth income quartile within the EB data and the 'high' income bracket within the EVS. All others are coded 0.

<sup>&</sup>lt;sup>25</sup> Occupational dummy variables are included for Professionals/Executives and Labor.

<sup>&</sup>lt;sup>26</sup> Partisanship is operationalized from the individual's self-placement on a 5 point left-right ideological scale, within which 1 represents "very left," 2 "left," 3 "center," 4 "right" and 5 "very right."

random processes and also reduce problems such as multicollinearity, interference from unsystematic factors, and heteroskedasticity (Greene 1993; Corlett 1990; King, Keohane & Verba 1994). Since several of the indicators featured in the hypotheses may be correlated, a large number of observations is necessary to estimate the relationships accurately. The usage of dual longitudinal datasets provides greater assurance in the robustness of our results and covers pertinent predictors that one dataset may lack. Table 6 features the EB data models. Model 1a includes the figures from the pre-EMU period and model 1b those from the post-EMU period. Table 7 displays the EVS models, with model 2a corresponding to the pre-EMU period and 2b the post-EMU period. In addition to the coefficients, the tables also include the percentage differential in support for each predictor group versus non-group members, as well as the predicted probability of integration support for each group with all other group values held at their median.<sup>27</sup> These figures allow us to evaluate both relative and absolute changes in integration support levels among the predictor groups. All of the models were tested using cross-sectional logistic regression and including dummy variables for nation and year in order to account for the multilevel nature of these data and to control for possibly confounding trending over time.<sup>28</sup> The results remained consistent with the results when using logistic regression techniques, which also included dummy variables for nation and year, so for ease of explanation I present only the results from these models. In order to determine whether changes in integration preferences occurred in the period following the EMU's establishment, I compare the coefficients, percentage differences and

<sup>&</sup>lt;sup>27</sup> Other values are held at their median rather than the mean when computing the predicted probabilities of integration support among the groups, because the majority of the groups are dummy variables.

<sup>&</sup>lt;sup>28</sup> Because xtlogit requires a dichotomous dependent variable, I recoded and tested this question in the following two ways: 1-good thing, 0-neither bad nor good & bad thing; 1-good thing, 0-bad thing. Neither coding changed the direction or significance of the relationship between the predictors and dv.

predicted probabilities of the predictors in the post-EMU period (1999-2011) to those of the pre-EMU period (1973-1998).

# **Dependent Variables**

The dependent variable adopted from the EB dataset is the response to the question below, which has consistently appeared on EB surveys from 1973-2011. The response to this question speaks to the individual's level of satisfaction and support for unification and its effects. It has been empirically substantiated that the answer to this question captures respondents' support for integration (Anderson & Reichert 1996; Anderson 1998; Carey 2002; Gabel 1998a, b; McLaren 2002; Olsson 2006; Dalton & Eichenberg 2007). I have assigned numeric values to the possible responses to create an ordinal dependent variable, which is appropriate when using ordered logit models (Frieden, Weymouth & Broz 2008; Garavaglia & Sharma 1996).

Generally speaking, do you think that your country's membership in the European Community is ...? a bad thing (2) neither good nor bad (3) a good thing

Ideally the dependent variable used in the EVS models would be identical to the EB, but this question has not been featured on EVS surveys. The dependent variable used within the EVS analysis is the respondent's answer to the question below, which has routinely been asked on these surveys since 1990 and used in the literature as a measure of integration support.

Although the EVS has not been administered as frequently as the EB, the period which it covers lends an appropriate window of time for scrutinizing the hypotheses. Responses of "quite a lot" and "a great deal" were recoded as 1, and responses of "none" and "not much" as 0.29

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<sup>&</sup>lt;sup>29</sup> Logistic regression analysis is used with the dichotomous EVS dependent variable of integration support.

How much confidence do you have in the European Community/European Union? (1) none (2) not much (3) quite a lot (4) a great deal

## **Control Variables**

I also include several variables that are traditionally featured in European integration research and are designed to control for potentially confounding factors. I include demographic variables, including gender and age, which often influence political preferences and may be related to the explanatory variables. The following controls are included: *Female* is a dummy variable coded "1" for females and is included in both EB and EVS analyses. *Age* is also in both sets and coded like the majority of works, where 1 is the 15-24 year-old bracket, 2 is the 25-39, 3 is the 40-54, and 4 is the 55-and-over.

Eurozone Member is a dummy variable where 1 indicates that the individual's home nation has formally joined the EMU, and 0 represents those living within Great Britain, Sweden and Denmark, non-EMU members. I expect respondents within EMU member nations to be more supportive of integration than their non-EMU counterparts. I also include a dummy variable *Net Recipient* to control for whether or not the individual's nation is a net contributor to or recipient of the EC/EU. Individuals within a *Net Recipient* nation are coded as 1 and those in net contributor nations as 0.<sup>30</sup>

In order to evaluate the potential difference in support among far left/right partisans relative to those closer to the center, we include the variable "Far L/R Partisan," which is operationalized by squaring the values of the Partisanship predictor. If our hypothesis is correct that individuals on the far sides of the partisan spectrum are less likely to be supportive of integration than those closer to the center, the Partisanship predictor should be

<sup>30</sup> The European Commission categorizes the following nations as "Net Recipients": Ireland, Spain, Portugal, Greece, and "Net Contributors": France, Belgium, Germany, Netherlands, Italy, Luxembourg, Denmark, United Kingdom, Finland, Sweden, Austria

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positively related to the dependent variable within the models, while *Far L/R Partisan* should be negatively associated.

### **Results & Discussion**

Overall the models demonstrate distinguishable shifts in individual integration views following the EMU's establishment; however, several run counter to their expected direction in the literature. Perhaps one of the most surprising findings from our research is that aggregate integration support is lower in the post-EMU than in the pre-period. Contrary to constructivist expectations, aggregate integration support has not risen over time as younger, postmaterialist and more cognitively mobilized generations replaced older, materialist and less cognitively mobilized ones. Figures 4 and 5 illustrate the decline in aggregate integration support between the pre-EMU and post-EMU periods. According to EB figures, the percentage of those supporting integration decreased from 62% to 56%, while EVS rates dropped from 57% to 41%. "Net support," another measure of integration support featured in the literature (the percentage difference between respondents who feel EC/EU membership is a 'bad thing' from those who saw it as a 'good thing'), decreased by a larger degree between the two periods, falling to 39% in the EB data and 28% in the EVS. While holding all of the variables within the EB models at their median values, the predicted probability of overall integration support, i.e., the probability of those viewing EU membership as a 'good thing,' drops .10 points from .69 in the pre-EMU period to .59 in the post. The EVS models also demonstrate that the probability of support decreases by .10 points between the pre- and post-EMU periods, from .58 to .48.

Though we were not able to verify the constructive hypotheses in the aggregate sense, our statistical models provide qualified support for our expectations regarding *High Cognitive* 

Mobility at the individual level. The results of model 1 show that integration-relative support among those of *High Cognitive Mobility* increased from around 8% more likely than other groups in the pre-EMU period to 21% in the post-EMU era. Within the EVS models the likelihood of relative support for this group increases from 20% to 27%. The probability of support for this group in the absolute sense, however, does not increase in the post-EMU period, but decreases by a smaller margin than the overall population. The models indicate that the probability of integration support for individuals of *High Cognitive Mobility* fell slightly by .03 and .05 points in the EB and EVS models, respectively, from .68 to .65 in the former and from .62 to .57 in the latter. Thus while we cannot completely confirm our hypothesis concerning this predictor, the tests allow us to confirm that relative to other groups, integration support among those of *High Cognitive Mobility* did increase within the post period.

The expected relationship between *Postmaterialists* and integration support, however, was not substantiated in the models. The *Postmaterialist* predictor fails to achieve statistical significance in either the pre- or post-EMU period and precludes us from confirming this hypothesis or drawing any conclusions about changes in this group's relative or absolute level of support between the pre and post periods (models 2a and 3b).

The models yielded interesting findings with regard to our constructive and rational-material based hypotheses on *Partisanship* and *Integration Support*. As expected, the models indicate that *Partisanship* is positively associated with support in both the pre and post periods, with coefficients of .5555 and .5388, respectively, and at a significance level of p<.0001. Contrary to our hypothesis, however, *Right Partisans* do not become more likely to be

supportive of integration in the post-EMU period. In fact, the probability of support for those

on the *Right* and *Far Right* actually decreases more during this period than for *Left* and *Far Left Partisans*. The predicted probability of support for *Right Partisans* decreases by .11, which is greater than the overall population's level, falling from .71 to .60. <sup>31</sup> Among the *Far Right*, the decline in probability of support is steeper at .17, dropping from .73 to .56. The probability of support for *Far Left* and *Left Partisans* also decreased in the post period: however, the decline was only by .02 and .06 points, respectively. Contrary to expectations, the change in probability of support between the pre- and post- EMU periods decreases as we move right along the partisan spectrum. While the probability of support for those on the *Far Left* remained the lowest of the partisan groups in the post period at .48, the probability of support for those on the *Left* is the same as those on the *Far Right* at .56. Thus, in a relative sense, the models did not demonstrate that *Left Partisans* became less supportive of the integration process in the post-EMU period as expected.

In terms of our constructivist hypotheses related to *Partisanship*, the models also produced somewhat mixed results. The tests demonstrate that the *Far L/R Partisan* predictor is significant and negatively associated with the dependent variable in both periods. This finding, in conjunction with *Partisanship's* positive relationship with support, substantiates the thesis that individuals on the far ends of the partisan spectrum are less likely to be supportive of integration than those situated more toward the center. The significant decrease in the probability of support among *Far Right Partisans* between the pre and post periods lends further support to the aforementioned argument. The marginal decline in the probability of integration support among *Far Left Partisans*, however, suggests that

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<sup>&</sup>lt;sup>31</sup> When computing the predicted probabilities for each partisan group, the Far L/R was set at its associated squared value, e.g., if Partisanship=3, then Far L/R=9. All other values were set at their medians.

exclusive identity cuing from political elites may largely be coming from those on the far right.

The results concerning the remainder of our rational-material hypotheses were somewhat disappointing. According to these accounts, groups poised to benefit financially from the EMU's establishment, including *Professionals/Executives* and *High Human Capital*, should correspondingly become more supportive of the integration process in the post-EMU period, while groups adversely impacted, like *Labor*, should become less supportive. Indeed this seems to be the case for *Labor*, as the models demonstrate a decline in this group's integration support in the post-EMU period. Across all three of the models, the likelihood of *Integration Support* for *Labor* relative to other groups, decreased in the post-EMU period, falling from 25% to 30% in the EB models and from 9% to 26% in the EVS tests. In absolute terms, the predicted probability of support for *Labor* dropped .11 points between the pre and post periods in both the EB and EVS models, falling from .60 to .51 in the former and .55 to .44 in in the latter.

By and large, the tests also confirm our hypothesis regarding increased support among individuals of *High Human Capital* in the post-EMU period. The likelihood of *Integration Support* for this group relative to others increased from 20% to 27% in the EB models and from 11% to a substantially higher 53% in the post-EMU period. Surprisingly, however, in absolute terms, the predicted probability of support for *High Human Capital* in the EVS models decreases slightly by .05, which is less than the overall population's decline, from .62 in the pre to .57 in the post period. Within the EB models, the probability of support for this group increases as expected from .68 to .70. Taken altogether, the test results allow us to confirm that relative to other groups, integration support among those of *High Human* 

Capital did increase within the post period. It should be noted that what defines one as *High Human Capital* are high education and income levels. Thus, it may be possible to attribute increased support among this group to educational or cognitive factors rather than greater returns to personal utility in the post-EMU era.

The findings provide qualified confirmation of our hypothesis regarding support among *Professionals/Executives* in the post-EMU period. In the EB models the likelihood of support for this group increased minimally from 40% in the pre to 41% in the post period. In the EVS model the likelihood of support for this group moved from an insignificant figure to 31% more likely to be supportive of integration than non-*Professionals/Executives*. The predicted probability of support among *Professionals/Executives* within the EB models decreases by .11 between the pre and post periods, falling from .75 to .64. In the EVS models, the probability of support for this group decreases from .56 to .51. Thus, while *Professionals/Executives* are demonstrated to be more likely than other groups to support integration, the corresponding increase in support expected to follow the EMU's establishment is not substantiated in the models. This finding is rather surprising considering that *Professionals/Executives* are expected to register a significant gain from economic liberalization and monetary harmonization in the region.

Finally, the results of our *Eurozone Member* control variable bear some discussion. Contrary to our expectations, the preferences of those within *Eurozone Member* nations do not appear to be distinctly more supportive of integration in the post period than their non-member peers. In the EB models, *Eurozone Member* is significant and positive in both periods, but the relative level of support for this group decreases in the post-EMU period. When these nations actually became Eurozone Members in the post-EMU period, the

likelihood of support for this group falls from 187% more supportive than others to 85%. In absolute terms, the probability of support for *Eurozone Members* also declines in the post-EMU period from .68 to .59. The EVS models also demonstrate a decline in *Integration Support* among *Eurozone Members* in the post-EMU period in both relative and absolute terms. According to these models, the likelihood of support for *Eurozone Members* relative to non-member nations decreases from 62% to 54% between these periods, while the probability of support drops from .58 to .48.

Thus, in terms of our rational-material hypotheses, the analysis only provides conclusive confirmation of *Labor's* expected decline in *Integration Support* within the post-EMU period. While *Professionals/Executives* are still more likely to hold positive integration views in the post-EMU period than those outside of the groups, support among them did not increase during this period as expected. Likewise, though right-leaning partisans appear to be more supportive than those on the *Far Left*, the probability of support among those on the *Far Right* is actually the same as those on the *Left*. Contrary to expectations, the probability of support for those on the *Right* and *Far Right* decreased by a wider margin than those on the *Left*, *Far Left* and *Center* in the post-EMU period.

These findings, along with the results of the *Eurozone Member* control, cast some doubt on rational-material explanations, which hold individual attitudes on integration as a product of economic gains or losses. In other words, if individual preferences regarding integration are solely a reflection of personal utility returns, it is difficult to reconcile why the groups that stood to gain the most from regional market liberalization and monetary harmonization did not become more supportive following the EMU's establishment. Taking the results into consideration with those of *High Cognitive Mobility* and *Far L/R Partisans* at the micro level

suggests that future work regarding individual integration preferences may prove more fruitful when considering the potential interactive effect between socialization processes and economic orientation.

### Conclusion

In this study we explored the relationship between institutions and individual preferences, specifically investigating whether the institutional establishment of the EMU had an impact on individual integration views. Our statistical analysis provided strong evidence that individual integration preferences were impacted by the introduction of the EMU, but not all necessarily in the direction expected within the literature.

In terms of our constructive-related framework, the tests generally demonstrated support for the *High Cognitive Mobility* and *Far L/R Parisan* hypotheses at the micro level, while failing to validate the *Postmaterialist* hypothesis. Indeed, perhaps one of the most interesting findings within this research effort is substantial decrease in the probability of integration support among *Far Right Partisans* within the post-EMU period. The macro-level expectations associated with these hypotheses, however, were not substantiated by the data. The models produced limited support for our rational-material hypotheses, as only the *Labor* hypothesis was firmly substantiated in the data. The likelihood of integration preferences among *Professionals/Executives* moved in a direction counter to our theoretical expectations following the EMU's establishment. Likewise, the probability of support for right-leaning partisans decreased by a larger margin between the pre- and post-EMU periods than it did for those on the left. If personal utility returns are the primary determinant of integration attitudes, as theorized in the rational-material research, it is difficult to understand why

attitudes in the post-EMU period do not directly correspond with the implications that this institution had on personal economic wellbeing.

The findings of this paper thus suggest that future research within the area of integration attitudes need not exclusively side with either constructive or utility-based explanations of support. Instead more focus should be directed toward the potential interactive effect between the two. *High Human Capital* is just one potential way to connect the two sides, and hopefully more work will be devoted to uncovering additional bridges between them.

Table 6: EB Data 1973-2011

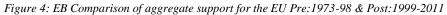
Table 6: EB	Pre-EMU (1973-1998) <i>Model 1a</i>			Post-EMU (1999-2011) <i>Model 1b</i>		
		%	predicted		%	predicted
predictors	coef.	difference	probability	Coef.	difference	probability
<b>High Cognitive</b>	0.075***			0.1880***		
Mobility	(.0093)	8	.68	(.0222)	21	.65
High Human	0.100***			0.4277***		
Capital	(.0152	11	.68	(.0246)	53	.70
<b>Professionals/</b>	0.3356***			0.3445***		
Executives	(.0198)	40	.75	(.04508)	41	.64
	-0.2895***			-0.3546***		
Labor	(.0100)	-25	.60	(.0229)	-30	.51
	0.5555***			0.5388***		
Partisanship	(.0163)	74	-	(.0380)	71	-
Far L/R	-0.0549***			-0.0749***		
Partisan	(.0027)	-5	-	(.0063)	-7	-
Far Left	-	-	.50	-	-	.48
Left			.61	-	-	.55
Center	-	-	.67	-	-	.59
Right			.71	-	-	.60
Far Right	-	-	.73	-	_	.56
Eurozone	1.0565***			0.6123***		
Member	(.0154)	187	68	(.0364)	85	59
	0.2999***			1.409***		
<b>Net Recipient</b>	(.0197)	-	_	(.0583)	_	_
_	-0.0388***			-0.1570***		
Age	(.0037)	-4	-	(.0079)	-15	-
	-0.2293***			-0.3120***		
Female	(.0074)	-21	-	(.0164)	-27	-
Overall	-	-	.69	-	-	.59
Number of obs LR chi2 Prob > chi2 Log likelihood	350073 (47)53527.62 0.0000 -286437.98			65540 (27) 7939.40 0.0000 57198.779		

Ordered logistic regression, with standard errors in parentheses, and using EU membership support as the dependent variable. The reported predicted probabilities correspond with responses that EU membership is a "good thing." \*\*\*p<.0001, \*\*p<.005

Table 7: EVS Data 1990-2009

Table 7 : EVS Dependent: EU Confidence	PRE-EMU 1990-1998 <i>Model 2a</i>			POST-EMU 1999-2009 <i>Model 2b</i>		
predictor	coef.	% difference	predicted probability	coef.	% difference	predicted probability
	-0.0271			0.02871		
<b>Postmaterialists</b>	(.0343)	-3	.57	(.0474)	3	.49
<b>High Cognitive</b>	0.1833***			0.2380***		
Mobility	(.0353)	20	.62	(.0437)	27	.57
High Human	0.3200***			0.4132***		
Capital	(.0462)	38	.65	(.0509)	51	.62
<b>Professionals</b> /	-0.0593			0.2716***		
<b>Executives</b>	(.0545)	-6	.56	(.0515)	31	.55
	-0.0917**			-0.3052***		
Labor	(.0303)	-9	.55	(.0646)	-26	.41
Eurozone	0.4791***			0.4284***		
Member	(.0706)	62	.58	(.0869)	54	.48
	-1.377***			0.2887*		
<b>Net Recipient</b>	(.1072)	-		(.1158)	-	-
	-0.0296*			-0.0625**		
Age	(.0141)	-3	-	(.0188)	-6	-
	-0.0600*			-0.01895		
Female	(.0281)	-6	_	(.0352)	-2	-
Overall	-	-	.58	-	_	.48
Number of obs LR chi2(20) Prob > chi2 Log likelihood	22570 1322.21 0.0000 -14953.097			14566 (21)1160.94 0.0000 -9493.6012		

Logistic regression, with standard errors in parentheses, and using confidence in the EU as the dependent variable. The reported predicted probabilities correspond responses of "quite a lot" or "a great deal" of confidence in the EU. \*\*\*p<.0001, \*\*p<.005



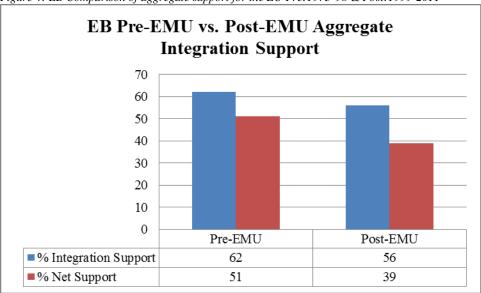
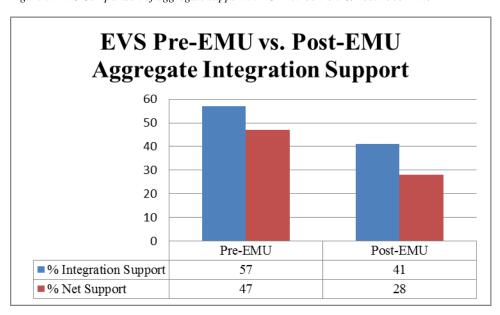


Figure 5: EVS Comparison of aggregate support in EU Pre:1990-98 & Post:1999-2009



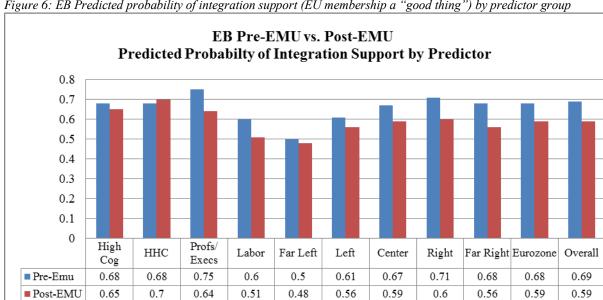
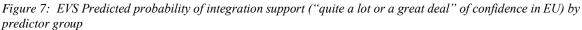
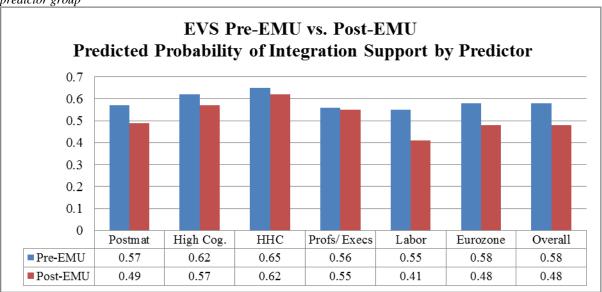


Figure 6: EB Predicted probability of integration support (EU membership a "good thing") by predictor group





### **CHAPTER 3**

# AMERICAN EXCHANGE RATE PREFERENCES: Confirming or Casting Doubt on Exchange Rate Theory?

The exchange rate is, arguably, the most influential element within an economy and within the greater international economic system (Broz & Frieden 2001). The value of the exchange rate effectively determines consumer purchasing power, product pricing and the competitiveness of the labor market. Given its implications for one's personal economic situation, the dominant exchange rate frameworks hold individual preferences as a function of his or her orientation within the economy. One's economic orientation is primarily defined in terms of his or her sector of employment or factor endowment, i.e., capital or labor. Alternative frameworks have also presented preferences as a product of the individual's ideological affiliation or beliefs about the way the rate affects his or her nation as a whole.

Despite the intellectual palatability of these theories, little, if any, empirical evidence underwrites them. Using data collected expressly for this study on the 2008 Polimetrix Survey, I empirically evaluate extant theoretical frameworks of individual exchange rate preferences. I derive a set of testable hypotheses from the frameworks and evaluate them using a combination of experimental design techniques and logistic regression analysis. The paper proceeds as follows. First, I review the main theoretical accounts of individual exchange rate preferences and outline the hypotheses derived from the frameworks. Next, I introduce the research design, including a description of the survey

instrument and brief overview of experimental design methods. Finally, I discuss my findings, which produce minimal empirical support for the explanatory power of extant exchange rate preference frameworks.

## EXCHANGE RATE PREFERENCE THEORY

The prevailing global exchange rate system has traditionally been used to define economic epochs/eras, e.g., Gold Standard Era, Bretton Woods, while within states the exchange rate effectively determines all other prices. In the present era of international capital mobility, the exchange rate has become the primary mechanism through which governments can maintain some modicum of monetary autonomy (Mundell 1963, Flemming 1962). The first way a government can manipulate the exchange rate is through setting its level (high or low), the price at which the national currency trades in foreign exchange markets. The second involves the determination of exchange rate regime for extra-state transactions (fixed or floating). That is, whether the currency will be fixed against some other currency, float freely, or be a combination of the two (Broz & Frieden 2001).

Several avenues of scholarship have developed around exchange rate matters, but the line most pertinent to this study seeks to explain individual and/or group preference holdings regarding the level and regime policy settings of the exchange rate. Much like the research on trade protectionism preferences, these studies aim to identify what affiliations or characteristics drive societal exchange rate preferences (Frieden & Rogowski 1996; McKeown 1983; Scheve & Slaughter 1998; Hiscox 2002; Oatley 1997, 2010).

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<sup>&</sup>lt;sup>32</sup> The Mundell-Flemming model, presented independently by Robert Mundell and Marcus Fleming, states that an economy cannot simultaneously maintain a fixed exchange rate, free capital movement, and an independent monetary policy. This principle is frequently called "the Unholy Trinity" or "Mundell Flemming Trilemma." Mundell, Robert A. (1963). "Capital mobility and stabilization policy under fixed and flexible exchange rates" *Canadian Journal of Economic and Political Science* 29 (4): 475–485; Fleming, J. Marcus (1962). "Domestic financial policies under fixed and floating exchange rates". *IMF Staff Papers* 9: 369–379.

A large share of research at the societal level, similar to trade preference theory, is predicated upon the significant distributional implications of the exchange rate, and thus holds individual preferences as a function of one's particular orientation within the economy (Frieden 1991; Frieden & Rogowski 1996; Cleeland-Knight 2010). Drawing from the Stolper-Samuelson theorem, factor-based explanations hold personal factor/skill endowments as the lines along which exchange rate preferences are forged. In terms of exchange rate level, those with a lower degree of factor endowments, assumed to be employed within labor-intensive industries or manufacturing, favor a low exchange rate, as it makes products more competitive at home and abroad. In contrast, those with higher factor endowments, or employed within capital-intensive industries including professionals and executives/managers, prefer a high currency level which lowers the cost of living by yielding greater purchasing power.

Much of the empirical work in this vein has developed out of the process of European monetary integration. Several research efforts have demonstrated personal factor endowments as the primary determinant of attitudes toward the Economic and Monetary Union (EMU). Those of higher skills (factors), like professionals and executives, are more supportive of the EMU as it enhances consumer purchasing power. Conversely, lower-skilled individuals, including laborers and working class individuals, tend to be less supportive, as a result of the added occupational competition that regional economic liberalization introduced (Gabel 1998; Gabel & Whitten 1997; Gabel & Palmer 1995). Other than indirect verification of this framework using EMU attitudes as a proxy of actual exchange rate preferences, this framework has not been empirically evaluated directly.

Jeffry Frieden's 1991 sector-based framework is generally considered the most established and accepted theory on exchange rate preferences. Frieden draws from the Ricardo-Viner Theorem and contends that preferences on exchange rate regime and level vary according to the distributional outcomes across the sectors. He proposes that groups involved in foreign trade, finance and investment prefer a fixed rate, as it maintains stability and thereby promotes trade and investment. In contrast, groups whose economic activity is limited to domestic transactions, including producers of non-tradable goods/services and import-competing goods for the domestic market, should prefer a floating regime that enables the government to manage and stabilize domestic economic conditions. In terms of level, import-competing firms and exporters often located within the manufacturing and other unionized sectors prefer a low exchange rate, as it makes their goods more competitive. Those within non-tradables, service sectors and investment prefer a higher-valued currency and its associated greater purchasing power.

Unfortunately, the empirical legacy of Frieden's framework is not as rich as its theoretical. Attempts to substantiate Frieden's framework have been susceptible to charges of methodological inadequacy because of their small sample size and/or single case/country focus (Jonung 2004). Arguably, its strongest methodological endorsement is the 2008 study by Broz, Frieden & Weymouth entitled "Exchange-Rate Policy Attitudes: Direct Evidence from Survey Data." Using data from the 1999 World Business Environment Survey (WBES), which was administered to owners and managers of over 10,000 firms in 80 countries, the authors find statistical support for the assumption that those within tradable

<sup>&</sup>lt;sup>33</sup> The Ricardo-Viner Model, also known as the "specific factors model," focuses on sectors rather than factors as the Heckscher-Olin model does. R-V assumes a single specific factor in each industry and one mobile factor and extends the simple Ricardian Model by allowing the marginal product of labor to fall with output.

goods prefer exchange rate stability more than those oriented within import-competing and non-tradable sectors. Their results also suggest that tradable producers are more likely to be dissatisfied by an appreciation of the real exchange rate than those within non-tradable sectors like services and construction. It is important to note, however, that the survey respondents were all owners or managers whose preferences are likely not representative of average employees and/or individuals. Sarah Cleeland-Knight's 2010 study featuring survey data from owners and workers at US firms, labor unions, trade and professional associations offered limited confirmation of Frieden's framework.

Ideological affiliation is another prominent mode of explaining exchange rate preferences within the literature. Much of this scholarship argues that right-leaning and conservative parties prefer a fixed, stable and higher-valued exchange rate, which helps to fulfill their constituents' premium on financial stability and low inflation. Left-leaning parties, whose constituents traditionally include the working class and domestically oriented firms, prefer a flexible regime, which permits some degree of domestic monetary autonomy and more expansive fiscal policies within conditions of international capital mobility as well as a lesser-valued currency.

Non-utility-based research, typically grounded in sociological rather than economic theory, stresses the need to incorporate factors such as identity, norms, and symbolism in the causal process of exchange rate preferences and note the infeasibility of assuming perfect information (Easton 1975; Finnemore & Sikkink 1998; Wendt 1999; Mansfield & Mutz 2009; Abdelal, Blyth & Parsons 2010). Such studies, according to David Easton's "Institutional Evaluation Framework," are premised upon the assumption that preferences are driven primarily by affective allegiances. In this case, exchange rate preferences are

derivatives of what the monetary institution "is or represents....not of what it does" (Easton 1975). In other words, views on currency regimes and levels are not based on their implications for personal utility but on their perceived shared meaning or symbolism.

According to the work of Inglehart, one of the foremost scholars within affectively-oriented scholarship, individuals with a higher "cognitive mobility" level, usually conceived of in terms of political awareness, involvement and communication skills, enables individuals to understand abstract concepts and processes such as the dynamics that exist among the exchange rate, consumer purchasing power and employment. (Inglehart, Rabier & Reif 1991; Janssen1991). Individuals with a high cognitive level should hold relatively consistent exchange rate preferences based not on its impact on personal utility, but on symbolic and collectively defined implications.

In sum, extant theory provides several potential frameworks by which individuals form their preferences on the exchange rate. For the purposes of this study, we focus on preferences regarding the exchange rate level or currency value. I test the following hypotheses to determine which, if any, of the frameworks lends the most explanatory purchase.

High Human Capital A high human capital level is taken to represent professionals and other higher-skilled occupations that are expected to prefer a higher-valued currency. In keeping with much of the IPE research, Human Capital consists of individuals with a college degree or more and in the third or fourth income quartile.

Hypothesis 1: The mean response of High Human Capital individuals should be higher (indicative of a preference for a higher-valued dollar) in all of the test groups than in the control and be positively associated with a higher-valued dollar in the logit model.

Labor Laborers, generally defined as those of lower human capital levels, are expected to prefer a lesser-valued currency. In keeping with much of the IPE research, Labor consists of individuals with a high school diploma or less and in the first or second income quartile.

Hypothesis 2: The mean response of Labor should be lower (indicative of a preference for a lesser-valued dollar) in all of the test groups than in the control and be negatively associated with a higher-valued dollar in the logit model.

*Union* Union membership is most often associated with manufacturing and import-competing sectors, which are expected to prefer a lesser-valued currency. I construct a dummy variable "*Union*" wherein 1 represents "union household" and 0 a "non-union household."

Hypothesis 3: The mean response of Union members should be lower in all of the test groups than in the control and be negatively associated with a higher valued dollar in the logit model.

*Ideology* Right-leaning individuals or conservatives are expected to favor a higher-valued dollar, while left-leaning individuals or liberals should prefer a lesser-valued dollar. I create two variables based on the respondent's self-placement along the ideological spectrum:

Conservatives and Liberals.

Hypothesis 4: The mean response of Conservatives should be higher in all of the test groups than in the control and be positively associated with a higher-valued dollar in the logit model, while the mean response Liberals should be lower in all of the test groups and negatively associated with a higher-valued dollar in the logit model.

High Cognitive Mobility Individuals with higher cognitive levels are theorized to be better equipped at processing abstract processes and regarded as an indicator of collectively defined preferences, not just material ones. I operationalize the variable "High Cognitive Mobility" consistent with previous literature, combining an individual's self-reported level of interest in "news and public affairs" and interest in "politics/current affairs." <sup>34</sup>

<sup>&</sup>lt;sup>34</sup> Cognitive Mobility is operationalized by adding the responses of the following two questions: "What is your interest news and public affairs" (1) hardly any at all, (2) only now and then, (3) some of the time, (4) most of the time & "What is your level of interest in politics and current events?" (1) not much, (2) somewhat, (3) very much. Scores of 2-3 were coded as "1-low," 4-5 as "2-mid," and 6-7 "3-high"

Hypothesis 5- The mean response of High Cognitive Mobility level individuals should be lower in all of the test groups than in the control, and negatively associated with a higher-valued dollar in the logit models.

High Market IQ I also evaluate the results of individuals who classified themselves as having a high Market IQ, or understanding of markets and finances.<sup>35</sup> Presumably these individuals should understand the dynamics among the currency value, employment and consumer prices. These individuals should have consistent preferences across the groups, but based on theory, we do not have expectations of the direction of the relationship.

Hypothesis 5- The mean response of individuals with a High Market IQ should be consistent across the control and test groups, as well as the logit models.

High Education I also evaluate the responses of individuals who have attained a four-year college degree or more. Previous experimental research suggests that educated individuals are more adept at interpreting the substantive issue being surveyed regardless of changes in the way that the question is framed (Chong & Druckman 2007; Tilley & Hobolt 2011). The responses of educated individuals should be consistent regardless of slight framing differences.

Hypothesis 6: The mean response of High Educated individuals should be consistent within test group IV, which received both of the treatment questions (Questions II & III).

## RESEARCH DESIGN

## **Survey Instrument**

An alternate coding of Cognitive Mobility was also included in the models, but did not change the direction or significance of results. The alternate coding is as follows: 1- High school diploma or less & political interest 'not much'; 2- High school diploma or less & political interest 'somewhat,' Some college or associate degree & political interest 'not much;' 3- High school diploma or less & political interest 'very much,' Some college or associate degree & political interest 'somewhat,' College degree or more & political interest 'not much;' 4- Some college or associate degree & political interest 'very much,' College degree or more & political interest 'somewhat;' 5- College degree or more & political interest 'very much.'

<sup>&</sup>lt;sup>35</sup> This group consists of respondents reporting themselves as having either an "excellent" or "good" understanding of financial markets.

This paper features original data from the Fall 2008 Polimetrix Cooperative Congressional Election Study (CCES) public opinion survey, coordinated by Dr. Stephen Ansolabehere of Harvard. The 2008 CCES involved 30 research teams that each contained a 1000-person national sample. Administered online during October and November of 2008, the survey instrument was thirty minutes long and included 120 questions. For each 1000-person survey, half of the questionnaire was developed entirely by the team's researchers, while the other half featured "Common Content" questions that appeared on all 30 surveys and mainly concerned demographic factors such as educational background, income, race and ideology. My battery of questions was featured within the UNC-Duke team survey, directed by Dr. Thomas Carsey. The survey consists of respondents from an opt-in pool, which was then converted into a representative sample by a process of matching characteristics of a random, representative sample of American adults.

The CCES respondents were assigned to one of four possible groups. Group I is considered the control group and received question I below, which contained no additional information on the implications of a higher-or lesser-valued dollar. Test group II received question II, which included information detailing the associated effects of a higher-or lesser-valued dollar (i.e., the treatment). Test group III received treatment question III, which framed the issue in terms of situations associated with either a higher or lesser dollar, without explicitly stating the connection. Finally, test group IV received both of the treatment questions (II & III), the responses of which will be noted as IVa and IVb, respectively. In order to compare the means of the control and test groups, I harmonize the responses, coding them in terms of either (1)

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<sup>&</sup>lt;sup>36</sup> "CCES Common Content, 2008" <ahref="http://hdl.handle.net/1902.1/14003">hdl:1902.1/14003</a> V4[Version]

within the study. I. The following question concerns your preference on currency valuations. Please read the prompt and indicate your top preference among the choices listed. Which of the following currency value situations do you most prefer? the US dollar having a higher value relative to other national currencies the US dollar having a lesser value relative to other national currencies \_\_\_no preference II. The following question concerns your preference on currency valuations. Listed is a generalization of effects associated with a higher or lesser dollar value relative to other currencies. Please indicate which you prefer: *Higher-valued*: cheaper prices on foreign products (e.g., gas, food, apparel, automobiles); cheaper prices when traveling abroad; US manufacturers sell less abroad and at home; job losses in lower-skilled and/or export sectors (e.g., manufacturing, textiles, auto, furniture) Lesser-valued: U.S. manufacturers sell more products abroad and at home; job gains within lower-skilled and/or export sectors (e.g., manufacturing, textiles, auto, furniture); higher prices on foreign products (e.g., gas, food, apparel, automobiles); higher cost of living due to higher prices. the US dollar having a higher value relative to other national currencies the US dollar having a lesser value relative to other national currencies \_\_\_no preference III. The following question concerns your preference on currency valuations. Which of the following two situations do you prefer: Cheaper consumer goods (e.g., gas, food, apparel, automobiles) but greater risk of job loss within lower-skilled and/or export sectors (e.g., jobs within manufacturing, textiles, auto industries) or More expensive consumer goods (e.g., gas, food, apparel, automobiles) but greater job security within lower-skilled and/or export sectors (e.g., jobs within manufacturing, textiles, auto industries). **Experimental Design** Though experimental design traditionally has enjoyed a stronger presence in psychological and behavioral economic research, it is gaining ground within political science largely

lesser-valued dollar or (2) higher-valued.<sup>37</sup> Table 9 features the means for all relevant groups

<sup>37</sup> I do not include "no preference/don't know" responses within the mean calculations or the formulation of the

dependent variables in our logit model, but they are included within the percentage figures.

because of this method's ability to clarify causal relationships that are difficult to gauge using other means of inference (Druckman, Green, Kuklinski, & Lupia 2011). According to economist Alvin Roth, experimental research can be used to uncover facts, scrutinize theory, adjudicate theoretical disputes and/or "whisper in the ears of princes," i.e., provide relevant information to policy makers and politicians. Experimental design research has made a number of significant contributions to scholarship. Laboratory researchers have explored topics ranging from the effects of media exposure to the conditions under which groups solve collective action problems (Iyengar & Kinder 1987; Ostrom, Walker & Gardner 1992). Others have used it to identify empirical anomalies that produced new theoretical insights or to evaluate the ways in which framing, information, and decision cues influence voters' policy preferences and support for public officials (McKelvey & Palfrey 1992; Druckman 2004; Tomz 2007).

In short, experiments allow us to evaluate a causal question through the comparison of two states of the world, "one in which some sort of intervention is administered (a treated state, i.e., exposing a subject to a stimulus/treatment) and another in which it is not (an untreated state)" (Sniderman 2011). Survey experimental research, like this study, involves an intervention in the course of an opinion survey. This approach enables researchers to present a large and representative sample of people with a broad range of different stimuli in a context that makes it easy to gather detailed outcome measures (Sniderman 2011). One can then use these measures to estimate the average effect of the treatment by calculating the difference between the sample mean of the treatment group and the control group.

The formal logic underlying experimental research is often presented in notational form, which comes from the work of mathematicians Jerzy Neyman (1923) and Donald Rubin

(1974). The Neymin-Rubin causal model states that for each individual "I," Y0 represents the outcome if i is not exposed to the treatment, and Y1 is the outcome if i is exposed to the treatment.

The treatment effect is thus defined as: (1)  $\tau i = Yi1 - Yi0$ .

We can then extend this logic to a set of individuals, where the average treatment effect (ATE) is the following: ATE =  $E(\tau i)$ = E(Yi1) - E(Yi0).

We can consider this estimate unbiased as long as participants were randomly assigned to groups, where the potential effect of participants' demographic or other features are balanced out by the covariate balance property. The treatment, i.e., information on the associated

Extending this logic to a set of individuals, we may define the average treatment effect (ATE) as follows: (2)  $ATE = E(\tau i) = E(Yi1) - E(Yi0)$ .

Implicitly the treatment effect may vary across individuals. Stated formally, the concept of the average treatment effect among the treated may be written:

(3)  $ATT = E(\tau i | Ti = 1) = E(Yi1 | Ti = 1) - E(Yi0 | Ti = 1)$ , where Ti = 1 when a person receives a treatment.

To clarify the terminology, Yi1/Ti=1 is the outcome resulting from the treatment among those who are actually treated, whereas Yi0/Ti=1 is the outcome that would have been observed in the absence of treatment among those who are actually treated. Comparing equations (2) and (3), the average treatment effect need not be the same as the treatment effect among the treated. This framework can be used to show the importance of random assignment. When treatments are randomly administered, the group that receives the treatment (Ti=1) has the same expected outcome as the group that does not receive the treatment (Ti=0) would if it were treated:

(4) E(Yi1/Ti=1) = E(Yi1/Ti=0)

Similarly, the group that does not receive the treatment has the same expected outcome, if untreated, as the group that receives the treatment, if it were untreated:

(5) E(Yi0/Ti=0) = E(Yi0/Ti=1)

Equations (4) and (5) are termed the independence assumption by Holland (1986) because the randomly assigned value of Ti conveys no information about the potential values of Yi. Equations (2), (4), and (5) imply that the average treatment effect may be written:

(6)  $ATE = E(\tau i) = E(Yi1|Ti=1) - E(Yi0|Ti=0)$ .

Because E(YiI/Ti=1) and E(Yi0/Ti=0) may be estimated directly from the data, this equation suggests a solution to the problem of causal inference. Random assignment further implies that independence will hold not only for Yi, but for any variable Xi that might be measured prior to the administration of the treatment. The average value of Xi in the treatment group can be assumed the same as the control group. The entire distribution of Xi is expected to be the same across experimental groups. This property is known as *covariate balance*.

<sup>&</sup>lt;sup>38</sup> Cambridge Handbook of Experimental Political Science: Neyman-Rubin Causal Model By: James N. Druckman, Donald P. Green, James H. Kuklinski, and Arthur Lupia

<sup>&</sup>quot;The logic underlying randomized experiments is often explicated in terms of a notational system that has its origins in Neyman (1923) and Rubin (1974). For each individual i let Y0 be the outcome if i is not exposed to the treatment, and Y1 be the outcome if i is exposed to the treatment. The treatment effect is defined as:  $(1) \tau i = Yi1 - Yi0$ .

economic implications of the currency value, should lead individual preferences to fall in line with extant theoretical predictions.

## **Statistical Analysis**

I supplement the findings of the experimental research design with statistical testing. I use logistic regression analysis with robust standard errors to detect any significant patterns of preference alignments and determine which, if any, of existing exchange rate frameworks has the greatest degree of explanatory purchase. Table 8 features the results from the six statistical models.

**Dependent Variables:** I use the results from the three questions listed above as the dependent variables in three separate statistical models.

Models 1 & 4 - Simple Currency- (0) Lesser-valued dollar or (1) Higher Models 2 & 5 - Currency with Information - (0) Lesser-valued dollar or (1) Higher Models 3 & 6 - Currency Situation - (0) Job Security/Lesser-valued dollar or (1) Cheaper Goods/Higher

*Controls*: I also include a number of control variables commonly included within the literature. *Age* consists of three groups where 18-34-year-olds are coded as 1, 35-54 as 2 and 55-and-up as 3. *Gender* is a dummy variable where 0 is male and 1 female.

### ANALYSIS & DISCUSSION

While failing to show that the intervening treatment had the anticipated impact would usually render an experiment a failure, in this case the absence of expected changes perhaps makes this a more interesting study. Indeed, the study provides minimal support for extant exchange rate preference theories' predictions. The results of the statistical tests, presented in Table 8, corroborate the experimental design findings. None of the explanatory variables achieve statistical significance in any of the models. *High Human Capital, Labor, Union,* 

Conservatives, Liberals, High Cognitive Mobility, High Market IQ and High Education all failed to achieve statistical significance in any of the models.<sup>39</sup> In fact, the only variable to achieve statistical significance is the *Age* control variable, which is negatively associated with a higher-valued dollar in models 3 and 6.

The information treatment question, which explicitly stated the economic implications of a higher- and lesser-valued dollar, essentially had a negligible impact on respondent choices. The difference in means between the control group and test group II (Figure 8) is less than a tenth of a point (.93 and .84 respectively). As figure 8 illustrates, proportions between the control group and test group II were highly consistent. The majority in both groups preferred a higher value, with 75% in the control and 69% in test group II. Only 5% favored a lesser-valued currency in the control and just slightly more preferred this value in the test group (13%). A similar share of individuals had "no preference" in both groups (19% and 20%, respectively). Comparison of the control group to that of individuals in test group IV, who were given the same information treatment question as test group II, produced strikingly similar results. The mean response was also .84, and around 70% of individuals in test group IV preferred a higher-valued dollar, 20% had no preference and just 10% favored a lesser-dollar value.

The difference in mean response between the control group and test group III, which received the treatment that did not explicitly connect the dollar value to the situations provided, is larger. The mean within this test group drops to .42, five-tenths of a point lower

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<sup>&</sup>lt;sup>39</sup> Though the small size of some of the subpopulations, e.g., union, could potentially explain their failure to achieve statistical significance within the logit model, variation in currency value preferences according to groups should be reflected in the proportional analysis of responses.

<sup>40</sup> One-way analysis of variance tests does not produce significantly different means between the control and

<sup>&</sup>lt;sup>40</sup> One-way analysis of variance tests does not produce significantly different means between the control and treatment groups II and IVa. These tests did show a significant difference in the means of the control and test groups III and IVb. Among the treatment groups which should be consistent, there is a significant difference of means between groups II and III, II and IVb, III and IVa, IVa and IVb.

than the control mean. The majority of respondents in this group answered in the opposite manner as the control group and test group II, with 58% preferring the situation associated with a lesser dollar value and only 42% the higher level. The proportion of responses of those within test group IV, which received the situational treatment, is similar to that of test group III, with a mean response of .46 and the majority (54%) preferring the situation associated with a lesser-dollar value.

The mean responses across the test groups varied according to the treatment framing, indicating that individuals may not have a strong understanding of the connection between the currency value, employment and consumer purchasing power. The figures from test group IV provide the most compelling evidence of this fact. Test group IV's mean response to the two treatment questions diverged significantly, with the majority of individuals preferring the higher value in the informational question and a lesser value in the situational treatment. The vast majority of group IV's respondents (70%) provided contradictory responses to these two questions.

The data provide even less support for our second set of hypotheses derived from exchange rate preference theory. *High Human Capital (HHC)*, typically used as a proxy for professionals and other highly skilled occupations, is theorized to be associated with a preference for a higher currency value, as purchasing power does not come at the loss of job security for this group. Our experiment, however, fails to provide any evidence to support this hypothesis. The mean response of the test groups should be greater than that of the control group or at least not drop below it. Among those who received the informational treatment question, the mean response dropped from .94 in the control group to .83 in test group II and .64 in group IV, with the majority preferring a higher value only by 50% and

61%, respectively (Figure 12). Likewise, the mean for the situational treatment decreases to .22 in group III and .44 in group IV and the majority of *HHC* individuals switch to a preference for a lesser value.

Labor and Union workers, who are most often affiliated with manufacturing and importcompeting sectors, are expected to prefer a lower currency value. The experiment produces little evidence that either group actually holds preferences for a lesser-valued dollar. The difference in mean response of *Union* members who received the informational treatment question dropped less than one-tenth of a point, from .90 in the control group to .86 in test group II (Figure 2.2). The percentage of *Union* members given the informational treatment preferring a lesser-valued dollar increased slightly from 8% in the control to 11% in test group II. Similarly *Labor's* mean response in test group II fell slightly to .83 from .92 in the control case, and the percentage support for a lesser value moved from 8% in the control to 17% in group II. Union and Labor's mean response to the situational treatment also followed the basic pattern of the overall population, decreasing to around .4 in test groups III and IVb. Again we find that the majority of *Union* members prefer a lesser-valued dollar when given the situational treatment by around 60%, while the bare majority of *Labor* does so at around 51%. The same contradictory preferences are given by *Union* and *Labor* in test group IV, and somewhat surprisingly, the mean responses of these groups are actually higher than their *HHC* counterparts across the test groups.

The survey results also fail to validate our expectations regarding ideological affiliation's impact on exchange rate level preferences. *Liberals* and *Conservatives* followed the same general trend of means across the groups (Figure 13). The control means for *Conservatives* and *Liberals* were .94 and .95, respectively, and both minimally decrease to .8 given the

informational treatment. The situational treatment produces a more pronounced difference in the means of both ideological groups, falling to .4 among *Conservatives* and .3 among *Liberals*. The majority of *Conservatives* and *Liberals* remained consistent with the overall population, preferring a higher value with informational treatment, a lesser value in the situational treatment context and displaying contradictory preferences within test group IV. The anticipated impact of a *High Cognitive Mobility* level on preferences is also not demonstrated within the experiment. The responses individuals of *High Cognitive Mobility* are not distinguishable from the general trend of the population. The *High Cognitive Mobility* control group's mean of .96 decreases to .84 given the information treatment, while falling further to around .4 in the situational context (Figure 14). Again we find a familiar proportional breakdown with the majority of *High Cognitive Mobility* individuals displaying opposite preferences in the informational and situational contexts.

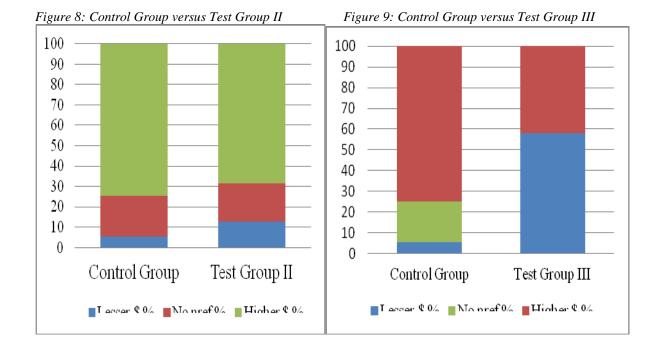
Finally, the two groups expected to hold consistent views, *High Education* and *High Market IQ*, proved no exception to the norm of conflicting preferences (Figure 14). The control means of these two groups minimally decreased from .9 to .8 when provided with the informational treatment but dropped rather significantly when provided with the situational to around .4. *High Education* respondents, who previous studies have proven to be better equipped at processing framing differences, failed to draw a connection between the treatments, with the majority preferring opposite levels in the informational and situational. Likewise, individuals who described themselves as having a strong understanding of financial markets failed to prove so, with 74% preferring a higher value in the informational and 66% preferring a lower value in the situational context.

Perhaps the most striking observation that can be drawn from the experiment is the consistency of inconsistency among the groups. The means and proportional breakdown of the overall population is mirrored by each of our predictive groups. The majority of each of the predictive groups preferred a higher dollar in response to the informational treatment and a lesser-valued one in the situational context, and none of our predictive groups provided consistent responses in test group IV. That the highly educated did not provide consistent responses in group IV suggests that the conflicting preferences displayed generally in this experiment are not merely a product of framing, but of a fundamentally unsound understanding of monetary relationships. Changes in the framing of the discussion seem to overcome American exchange rate views rather easily. The results from this study paint a picture of individual preferences that are far from the ordered, stable set depicted in our theories.

## **CONCLUSION**

This study accomplished all three of Roth's experimental objectives. It uncovered unknown facts and patterns highlighting the inconsistent or unknown preferences of Americans concerning the exchange rate, which could be of relevance to "princes" or policy makers. The findings of this experiment convey a strong message about the strength and reliability of extant exchange rate theory. Indeed, our experiment and statistical tests were not able to produce empirical support for any of the extant theoretical accounts of exchange rate preferences. Unless this is a case of American "exceptionalism," it appears that our theories need more empirical testing in order to establish their generalizability and robustness. This study also suggests that monetary issues represent one area where Americans have not been able to access and develop coherent and consistent opinions, as the average individual

holds what appears to be a tenuous grasp of monetary dynamics or the implications that the currency value has on employment and consumer purchasing power. Clearly there is a strong need for more research exploring the potential impediments to this issue area. This study will hopefully pave the way for more research on American public opinion of monetary-related matters to uncover the underlying factors and/or reasons why the exchange rate seems to be the one issue about which Americans lack an opinion.



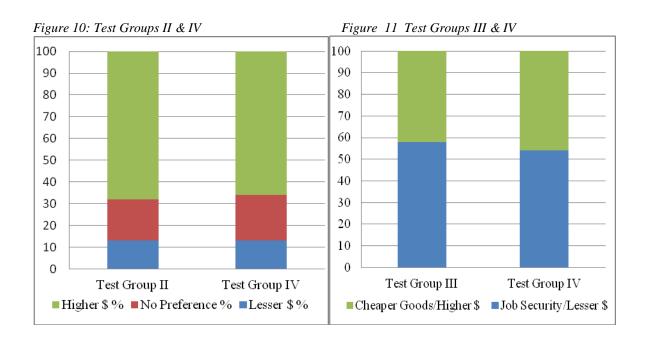


Table 8: Logistic Regression with robust standard errors in parentheses; \*\*p<0.01\*p<0.05

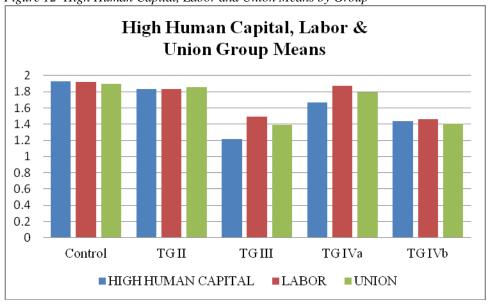
Predictors	Model 1		Model 3	Model4	Model 5	
DV	Simple	Information	Situation	Simple	Information	Situation
High Human	6483	2477	.1716	-	-	-
Capital	(.9813)	(.3784)	(.3141)			
Labor	2346	.1353	.1974	-	-	-
	(.9950)	(.3582)	(.2274)			
Union	5919	1090	1749	6169	1097	2103
	(.8318)	(.3185)	(.2191)	(.7191)	(.3187)	(.2191)
Conservative	5443	.3440	0315	4711	.3460	0474
	(.8519)	(.3212)	(.2192)	(.8922)	(.3219)	(.2185)
Liberal	.3058	.1487	5852	.3167	.1573	5967
	(1.131)	(.3861)	(.2669)	(1.151)	(.3848)	(.2661)
High	1.654	.2569	1588	1.606	.2622	1924
Cognitive	(.8094)	(.3139)	(.2214)	(.7685)	(.3203)	(.2161)
Mobility						
High Market	-2.002	.2048	.0833	-1.978	.1978	.0966
IQ	(1.509)	(.3189)	(.2075)	(1.390)	(.3115)	(.2063)
High	-	-	-	3339	3038	1501
Education				(.7744)	(.3140)	(.2190)
Female	.2261	0742	0470	.1540	0843	0524
	(.6544)	(.2853)	(.2021)	(.8005)	(.2886)	(.2017)
Age	.4497	3069	3520*	.4816	3041	3241*
	(.5221)	(.2210)	(.1484)	(.5094)	(.2171)	(.1461)
cons	2.799	2.016*	.6638	2.739	2.113*	.7646
	(2.242)	(.7291)	(.5025)	(2.152)	(.7418)	(.4959)
Obs	174	371	461	174	371	461
Wald chi2	(19) 15.30	(9) 4.37	(9) 15.52	(8) 12.95	(8) 4,18	(8) 14.96
Prob > chi2	0.0830	0.8851	.0776	.1135	.8404	.0599

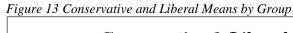
Table 9: Mean Results from Survey Experiment

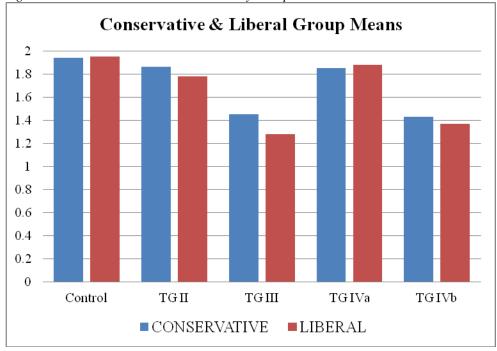
Predictors	Control Group	Test 2 Information Treatment	Test 3 Situation Treatment	Test 4A Information Treatment	Test 4B Situation Treatment
Overall group	.93	.84	42***	.84	.46***
<u> </u>	.93	.04	.42***	.04	
High Human Capital	.93	.83	.22***	.67*	.44***
Labor	.92	.83	.49***	.87	.46
Union	.90	.86	.39***	.79*	.41***
Conservative	.94	.86	.45***	.85	.43***
Liberal	.95	.78*	.28***	.88	.37***
High Cognitive Mobility	.95	.84*	.33***	.84	.43***
High Market IQ	.92	.84*	.43***	.84	.44***
High Education	.94	.82*	.29***	.80	.46***

Entries are group means. All variables coded on a 0–1 scale. Larger value (1) for higher-valued currency preference. P-values represent difference of mean significance level of groups in the test versus control cases \*p<0.05, \*\*p<0.01, \*\*\*p<0.00

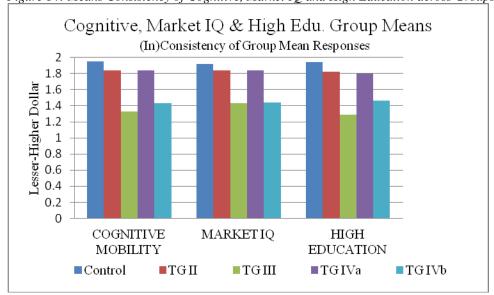
Figure 12 High Human Capital, Labor and Union Means by Group











## APPENDIX

Figure 1.1 Table 1 Model 1: With Cognitive, Political Mobility separated into education & political discussion, with year dummy coefficients.

with year dummy coeffic		_				_
DV: Membership	Coef.	Std. Err.	Z	P>z	[95% Conf.	Interval]
POSTMATERIALISM	.0648485	.0063094	10.28	0.000	.0524823	.0772146
POLITICAL	.1233268	.0040353	30.56	0.000	.1154176	.1312359
DISCUSSION						
EDUCATION	.2758152	.0060563	45.54	0.000	.2639451	.2876854
PROFESSIONAL/	.3962907	.0204361	19.39	0.000	.3562366	.4363447
EXECUTIVES						
LABOR	3046572	.0106956	-28.48	0.000	3256202	2836941
IDEOLOGY	.2451294	.0051567	47.54	0.000	.2350225	.2552363
NET CONTRIBUTOR	.0834538	.0106787	7.82	0.000	.062524	.1043836
EUROZONE	1.109876	.0111356	99.67	0.000	1.08805	1.131701
MEMEBR						
AGE SEGMENT 40-	.0052552	.0108816	0.48	0.629	0160723	.0265827
54						
25-39	0308768	.0107892	-2.86	0.004	0520232	0097304
15-24	.0587522	.0123	4.78	0.000	.0346447	.0828598
FEMALE	2300946	.0079312	-29.01	0.000	2456395	2145497
_Iyear_1976	2081609	.0370805	-5.61	0.000	2808374	1354844
_Iyear_1977	0969542	.032756	-2.96	0.003	1611548	0327536
_Iyear_1978	0603853	.0329291	-1.83	0.067	1249251	.0041546
_Iyear_1980	3037472	.0323335	-9.39	0.000	3671196	2403748
_Iyear_1981	4560222	.0319461	-14.27	0.000	5186353	3934091
_Iyear_1982	4383558	.0321207	-13.65	0.000	5013113	3754004
_Iyear_1983	265606	.0320817	-8.28	0.000	3284851	202727
_Iyear_1984	2741372	.0319486	-8.58	0.000	3367553	2115191
_Iyear_1985	1637007	.0316651	-5.17	0.000	2257632	1016382
_Iyear_1986	.1069752	.0317578	3.37	0.001	.0447309	.1692194
_Iyear_1987	.1169478	.0318892	3.67	0.000	.0544461	.1794495
_Iyear_1988	.0624946	.0317613	1.97	0.049	.0002437	.1247456
_Iyear_1989	.2607391	.0297208	8.77	0.000	.2024875	.3189907
_Iyear_1990	.3125626	.0320141	9.76	0.000	.2498161	.375309
_Iyear_1991	.4557401	.030401	14.99	0.000	.3961552	.5153249
_Iyear_1992	.0639575	.0311486	2.05	0.040	.0029074	.1250075
_Iyear_1993	1683455	.0308291	-5.46	0.000	2287695	1079215
_Iyear_1997	5859171	.0332826	-17.60	0.000	6511497	5206844
_Iyear_2005	5095835	.0331468	-15.37	0.000	57455	444617
_Iyear_2008	4383789	.0332515	-13.18	0.000	5035506	3732071
_cons	-1.276954	.0384353	-33.22	0.000	-1.352286	-1.201622

Figure 1.2 Table 1 Model 1: Micro Model with year dummy coefficients

memdic memdic	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
POSTMATERIALISM	.0648073	.006311	10.27	0.000	.0524379	.0771767
COGNITIVE SKILLS	.095041	.015162	6.27	0.000	.0653241	.124758
2						
3	.2538115	.0147015	17.26	0.000	.2249971	.282626
4	.3871689	.0158408	24.44	0.000	.3561216	.4182163
5	.4902638	.0194308	25.23	0.000	.4521801	.5283475
6	.4702256	.0282298	16.66	0.000	.4148961	.525555
EDUCATION	.1610774	.0077025	20.91	0.000	.1459808	.1761739
PROFESSIONAL/	.4042014	.0204719	19.74	0.000	.3640773	.4443255
EXECUTIVES						
LABOR	3043019	.010701	-28.44	0.000	3252755	2833284
IDEOLOGY	.2444379	.0051589	47.38	0.000	.2343266	.2545491
NET CONTRIBUTOR	.0812384	.0106848	7.60	0.000	.0602966	.1021803
EUROZONE	1.107355	.0111485	99.33	0.000	1.085504	1.129206
MEMEBR						
FEMALE	2303741	.0079324	-29.04	0.000	2459213	2148269
AGE SEGMENT 40-	.0031914	.0108936	0.29	0.770	0181597	.0245425
54						
25-39	0350479	.0108195	-3.24	0.001	0562537	0138421
15-24	.0484902	.0124261	3.90	0.000	.0241355	.0728448
_Iyear_1976	2084021	.0370911	-5.62	0.000	2810992	135705
_Iyear_1977	09759	.0327642	-2.98	0.003	1618067	0333733
_Iyear_1978	0614124	.0329368	-1.86	0.062	1259673	.0031424
_Iyear_1980	3046432	.0323406	-9.42	0.000	3680295	2412568
_Iyear_1981	4563978	.0319534	-14.28	0.000	5190252	3937704
_Iyear_1982	4401051	.0321293	-13.70	0.000	5030774	3771329
_Iyear_1983	2673742	.0320905	-8.33	0.000	3302705	204478
_Iyear_1984	2749851	.0319559	-8.61	0.000	3376176	2123526
_Iyear_1985	1651987	.0316731	-5.22	0.000	2272768	1031205
_Iyear_1986	.1052366	.0317654	3.31	0.001	.0429775	.1674957
_Iyear_1987	.1147688	.0318976	3.60	0.000	.0522507	.1772868
_Iyear_1988	.06047	.0317692	1.90	0.057	0017965	.1227365
_Iyear_1989	.2587482	.0297286	8.70	0.000	.2004813	.3170151
_Iyear_1990	.3113885	.0320203	9.72	0.000	.2486298	.3741471
_Iyear_1991	.454035	.0304081	14.93	0.000	.3944364	.5136337
_Iyear_1992	.0622197	.0311554	2.00	0.046	.0011563	.1232831
_Iyear_1993	1707691	.0308372	-5.54	0.000	2312088	1103293
_Iyear_1997	5896075	.0332951	-17.71	0.000	6548647	5243502
	5137185	.0331594	-15.49	0.000	5787097	4487274
	442128	.0332649	-13.29	0.000	5073261	37693
_cons	-1.031326	.0385156	-26.78	0.000	-1.106815	9558372

Figure 1.3 Table 2, Model 2: Meso featuring postwar cohort and year dummy coefficients

Figure 1.3 Table 2, Model 2			hort and y			1
memdichot	Coef.	Std. Err.	Z	P>z	[95% Conf.	Interval]
POSTWAR COHORT	.0200877	.0062966	3.19	0.001	.0077466	.0324288
1932-1944 Cohort	023057	.0090659	-2.54	0.011	0408258	0052882
COGNITIVE SKILLS 2	.1217778	.0114304	10.65	0.000	.0993746	.144181
3	.2954424	.0111185	26.57	0.000	.2736504	.3172343
4	.4650303	.0117934	39.43	0.000	.4419156	.4881449
5	.5904917	.0139381	42.37	0.000	.5631736	.6178098
6	.593472	.0193179	30.72	0.000	.5556097	.6313344
EDUCATION	.2049452	.0052614	38.95	0.000	.194633	.2152573
PROFESSIONAL/	.3511242	.0144783	24.25	0.000	.3227472	.3795011
EXECUTIVES						
LABOR	3292337	.007703	-42.74	0.000	3443313	3141361
IDEOLOGY	.1412184	.0035372	39.92	0.000	.1342855	.1481512
NET CONTRIBUTOR	3190053	.0079934	-39.91	0.000	3346721	3033385
EUROZONE MEMEBR	.7640005	.0081952	93.23	0.000	.7479383	.7800628
FEMALE	2636025	.0054713	-48.18	0.000	274326	2528789
_Iyear_1976	.0657406	.0371952	1.77	0.077	0071607	.1386419
_Iyear_1977	.1730344	.0373123	4.64	0.000	.0999037	.2461651
_Iyear_1978	.2382806	.0375402	6.35	0.000	.1647032	.311858
_Iyear_1979	.2853818	.0373554	7.64	0.000	.2121665	.3585971
_Iyear_1980	0405526	.0368054	-1.10	0.271	1126899	.0315847
Iyear 1981	2185204	.0362896	-6.02	0.000	2896468	147394
_Iyear_1982	1749393	.0364748	-4.80	0.000	2464286	1034499
Iyear 1983	0018112	.0364247	-0.05	0.960	0732023	.0695799
	0298052	.0362177	-0.82	0.411	1007905	.0411802
Iyear 1985	.0977146	.0348912	2.80	0.005	.0293291	.1661001
	.351539	.034938	10.06	0.000	.2830617	.4200163
	.3557083	.0350134	10.16	0.000	.2870833	.4243332
Iyear 1988	.3012997	.0348961	8.63	0.000	.2329046	.3696948
	.5090399	.0330992	15.38	0.000	.4441666	.5739133
Iyear 1990	.5509888	.0350612	15.72	0.000	.48227	.6197075
_Iyear_1991	.7083017	.0336737	21.03	0.000	.6423023	.774301
_Iyear_1992	.2934091	.0331708	8.85	0.000	.2283956	.3584226
_Iyear_1993	.0826836	.0340337	2.43	0.015	.0159787	.1493885
_Iyear_1995	2380798	.0358145	-6.65	0.000	3082749	1678847
_Iyear_1996	3265198	.0325656	-10.03	0.000	3903472	2626923
_Iyear_1997	2898005	.0321422	-9.02	0.000	3527981	2268029
_Iyear_1998	0708409	.0335712	-2.11	0.035	1366392	0050427
_Iyear_1999	021525	.0364755	-0.59	0.555	0930156	.0499656
	1230999	.0337143	-3.65	0.000	1891788	0570211
	0999157	.0337738	-2.96	0.003	1661111	0337203
	.0103152	.0337735	0.31	0.760	0558047	.0764352
iyear_2002 _Iyear_2003	1042021	.0336749	-3.09	0.700	1702036	0382005
iyeai_2003 _Iyear_2004	.0628214	.0363978	1.73	0.002	008517	.1341599
iyeai_2004 Iyear_2005	1552879	.0303978	-4.63	0.000	2210767	0894992
	1332879	.0326894	-6.68	0.000	2823584	0894992
_Iyear_2006	.0148829					
_Iyear_2007		.033644	0.44	0.658	0510581 2147355	.0808238
_Iyear_2008	1488478	.0336168	-4.43	0.000		0829602
_cons	5277992	.035748	-14.76	0.000	5978639	4577344

Figure 1.4 Table 2, Model			cohort and	·		
memdic	Coef.	Std. Err.	Z	P>z	[95% Conf.	Interval]
						1
POST 1975 COHORT	.3898356	.0134538	28.98	0.000	.3634668	.4162045
COGNITIVE SKILLS 2	.1212424	.0107616	11.27	0.000	.10015	.1423348
3	.2861286	.0104405	27.41	0.000	.2656657	.3065915
4	.4520272	.0110887	40.76	0.000	.4302938	.4737607
5	.5727591	.0132599	43.19	0.000	.5467702	.598748
6	.5757627	.0187048	30.78	0.000	.5391018	.6124235
EDUCATION	.2181716	.0050023	43.61	0.000	.2083672	.227976
PROF/EXECS	.3664336	.0137884	26.58	0.000	.3394089	.3934582
LABOR	3212872	.0072043	-44.60	0.000	3354073	3071671
IDEOLOGY	.1444227	.0033899	42.60	0.000	.1377785	.1510668
NET CONTRIBUTOR	2900697	.0078202	-37.09	0.000	305397	2747424
EUROZONE MEMEBR	.7656667	.0080175	95.50	0.000	.7499527	.7813807
FEMALE	26011	.005249	-49.55	0.000	2703979	2498221
_Iyear_1976	.0851777	.0357293	2.38	0.017	.0151497	.1552058
_Iyear_1977	.1984149	.0358495	5.53	0.000	.1281511	.2686786
	.2374892	.0360008	6.60	0.000	.1669289	.3080496
	.3037593	.0359604	8.45	0.000	.2332783	.3742404
_Iyear_1980	0216606	.0355355	-0.61	0.542	0913089	.0479877
	1899256	.035144	-5.40	0.000	2588066	1210445
_Iyear_1982	1572512	.0353045	-4.45	0.000	2264468	0880556
	.0102824	.0352985	0.29	0.771	0589014	.0794662
_Iyear_1984	.0038489	.0351539	0.11	0.913	0650514	.0727492
_Iyear_1985	.0969698	.034882	2.78	0.005	.0286024	.1653372
_Iyear_1986	.3519338	.0349283	10.08	0.000	.2834756	.4203919
_Iyear_1987	.3569787	.0350039	10.20	0.000	.2883723	.4255851
_Iyear_1988	.3013595	.0348877	8.64	0.000	.2329809	.3697381
_Iyear_1989	.5090829	.0330913	15.38	0.000	.444225	.5739407
Iyear 1990	.5505266	.0350518	15.71	0.000	.4818263	.6192269
_Iyear_1991	.7079304	.0336654	21.03	0.000	.6419474	.7739133
Iyear 1992	.2929181	.0331631	8.83	0.000	.2279196	.3579165
_Iyear_1993	.081891	.0340264	2.41	0.016	.0152004	.1485815
_Iyear_1995	241635	.0358053	-6.75	0.000	311812	1714579
Iyear 1996	3289251	.0325573	-10.10	0.000	3927362	2651139
_Iyear_1997	2922589	.0321343	-9.09	0.000	355241	2292768
_Iyear_1998	0740737	.0335612	-2.21	0.027	1398524	008295
_Iyear_1999	083044	.0365401	-2.27	0.027	1546613	0114268
	1820988	.0337674	-5.39	0.023	2482818	1159159
	1573501	.0338228	-4.65	0.000	2236416	0910586
	0467489	.0337722	-1.38	0.000	1129413	.0194435
	0407489	.0336781	-4.70	0.000	2243307	0923151
	.0158468	.0363862	+	0.663	0554689	.0871625
_Iyear_2004 _Iyear_2005	2008592	.0303802	-5.99	0.003	2666126	1351057
				+		
_Iyear_2006	2592007	.0326563	-7.94	0.000	3232059	1951955
_Iyear_2007	0250266	.0336087	-0.74	0.456	0908985	.0408453
_Iyear_2008	1885514	.0335774	-5.62	0.000	2543619	1227408
_Iyear_2010	1120055	.0360539	-3.11	0.002	1826699	0413411
_Iyear_2011	168525	.0359863	-4.68	0.000	2390568	0979932
_cons	5679864	.0353293	-16.08	0.000	6372306	4987423

Figure 1.5 Table 2 Model 4: Meso model featuring Age Segments with year dummy coefficients.

Figure 1.5 Table 2 Model 4: M	Coef.	Std. Err.		P>z		Intom:oll
memdic			Z 0.12		[95% Conf.	Interval]
AGE SEGMENT	.0008568	.0071006	0.12	0.904	0130603	.0147738
40-54	0020152	0071405	0.55	0.504	017020	0100075
25-39	0039152	.0071495	-0.55	0.584	017928	.0100975
15-24	.1684381	.0084481	19.94	0.000	.1518802	.184996
COGNITIVE SKILLS 2	.115865	.0107909	10.74	0.000	.0947151	.1370149
3	.280695	.0104906	26.76	0.000	.2601337	.3012562
4	.4420316	.0112046	39.45	0.000	.420071	.4639923
5	.5654949	.0133311	42.42	0.000	.5393663	.5916234
6	.5748835	.0187158	30.72	0.000	.5382012	.6115659
EDUCATION	.2132055	.0050915	41.87	0.000	.2032264	.2231846
PROF/EXECS	.3772197	.0138417	27.25	0.000	.3500904	.4043489
LABOR	3223632	.0074055	-43.53	0.000	3368777	3078487
IDEOLOGY	.1449088	.0033997	42.62	0.000	.1382456	.1515721
NET CON	2857442	.0078323	-36.48	0.000	3010951	2703932
EUROZONE MEMEBR	.7653113	.0080225	95.40	0.000	.7495875	.781035
FEMALE	2596231	.0052663	-49.30	0.000	2699449	2493014
_Iyear_1976	.1043512	.0269146	3.88	0.000	.0515994	.1571029
	.2164503	.0270744	7.99	0.000	.1633855	.2695151
	.2557299	.0272745	9.38	0.000	.2022729	.309187
	.3225486	.0272185	11.85	0.000	.2692014	.3758958
Iyear 1980	0034504	.0266553	-0.13	0.897	0556938	.048793
	1711721	.0261305	-6.55	0.000	222387	1199573
Iyear 1982	1396734	.0263456	-5.30	0.000	1913098	0880369
_Iyear_1983	.0292952	.0263346	1.11	0.266	0223197	.08091
_Iyear_1984	.0223463	.0261387	0.85	0.393	0288846	.0735772
_Iyear_1985	.1158628	.0257691	4.50	0.000	.0653563	.1663694
	.3725141	.0258325	14.42	0.000	.3218833	.4231448
Iyear 1987	.3752515	.0259319	14.47	0.000	.324426	.426077
	.3195554	.0257717	12.40	0.000	.2690438	.370067
	.5293191	.0232323	22.78	0.000	.4837846	.5748537
	.5693593	.0259794	21.92	0.000	.5184406	.620278
_Iyear_1991	.7289502	.0240673	30.29	0.000	.6817793	.7761212
_Iyear_1992	.3141286	.0233241	13.47	0.000	.2684141	.359843
_Iyear_1992	.10425	.0235241	4.24	0.000	.0560904	.1524095
_Iyear_1994	.0232733	.0364812	0.64	0.524	0482285	.0947752
Iyear 1995	2181109	.0269178	-8.10	0.000	0482283	1653529
_Iyear_1996	3050403	.0224509	-13.59	0.000	3490432	2610373
_Iyear_1997	2676639	.0217956	-12.28	0.000	3103825	2249453
_Iyear_1998	0482288	.0238776	-2.02		0950281	0014295
_Iyear_2000	0998292	.0240777	-4.15	0.000	1470206	0526379
_Iyear_2001	0763044	.0241291	-3.16	0.002	1235966	0290123
_Iyear_2002	.0346022	.024057	1.44	0.150	0125487	.0817531
_Iyear_2003	0774218	.0239606	-3.23	0.001	1243837	0304599
_Iyear_2004	.0924622	.0276422	3.34	0.001	.0382844	.14664
_Iyear_2005	1250927	.0237989	-5.26	0.000	1717376	0784478
_Iyear_2006	1859659	.0225432	-8.25	0.000	2301498	1417821
_Iyear_2007	.0471848	.0239004	1.97	0.048	.0003408	.0940288
_Iyear_2008	1165847	.0238633	-4.89	0.000	163356	0698135
_Iyear_2010	0449739	.0272512	-1.65	0.099	0983852	.0084374
_Iyear_2011	102678	.0271654	-3.78	0.000	1559212	0494347
_cons	6065006	.0265006	-22.89	0.000	6584407	5545604

Figure 1.6 Table 3 Model 5: Meso model featuring Postwar Cohort & Postmaterialism, with year dummy coefficients.

coefficients.	- C	G. 1 E	1	T.D.	F0.50/ C C	T . 13
memdichot	Coef.	Std. Err.	Z	P>z	[95% Conf.	Interval]
DOCUMENTA D. COMPOST	022072	0002271	2.25	0.010	0.402.404	002555
POSTWAR COHORT	022052	.0093354	-2.36	0.018	0403491	003755
1932-1944 COHORT	0019309	.0130187	-0.15	0.882	027447	.0235853
POSTMATERIALISM	.0735917	.006542	11.25	0.000	.0607697	.0864137
COGNITIVE SKILLS	.0953636	.0158744	6.01	0.000	.0642504	.1264769
2						
3	.2585646	.0153982	16.79	0.000	.2283848	.2887444
4	.3966964	.0165142	24.02	0.000	.3643292	.4290636
5	.4895898	.020171	24.27	0.000	.4500554	.5291242
6	.4644011	.0292275	15.89	0.000	.4071163	.5216858
EDUCATION	.1604836	.0079913	20.08	0.000	.144821	.1761463
PROFESSIONAL/	.39521	.0215645	18.33	0.000	.3529445	.4374756
EXECUTIVES						
LABOR	3077909	.0111661	-27.56	0.000	3296762	2859057
IDEOLOGY	.2385866	.0053456	44.63	0.000	.2281095	.2490637
NET CONTRIBUTOR	.0433562	.0108806	3.98	0.000	.0220306	.0646818
EUROZONE	1.079343	.0114173	94.54	0.000	1.056966	1.101721
MEMEBR						
FEMALE	2342397	.0082045	-28.55	0.000	2503202	2181592
_Iyear_1977	.1146396	.0363022	3.16	0.002	.0434886	.1857907
_Iyear_1978	.1718805	.0365417	4.70	0.000	.10026	.243501
_Iyear_1979	.2167846	.0419504	5.17	0.000	.1345633	.2990058
_Iyear_1980	086749	.035701	-2.43	0.015	1567217	0167763
_Iyear_1981	2446378	.0352163	-6.95	0.000	3136606	1756151
_Iyear_1982	2188609	.0354138	-6.18	0.000	2882708	1494511
_Iyear_1983	0424869	.035333	-1.20	0.229	1117382	.0267645
_Iyear_1984	0697986	.0351589	-1.99	0.047	1387088	0008885
_Iyear_1985	.0728788	.0339608	2.15	0.032	.0063168	.1394408
_Iyear_1986	.3404124	.0340496	10.00	0.000	.2736764	.4071483
_Iyear_1987	.3503479	.0341799	10.25	0.000	.2833565	.4173392
_Iyear_1988	.2959852	.0340527	8.69	0.000	.2292431	.3627272
	.4930458	.0321541	15.33	0.000	.4300249	.5560668
	.5470014	.0342636	15.96	0.000	.479846	.6141567
	.6887535	.0327699	21.02	0.000	.6245257	.7529814
	.2987977	.0334516	8.93	0.000	.2332338	.3643615
	.0659831	.0331428	1.99	0.046	.0010243	.1309419
	3532291	.0354233	-9.97	0.000	4226574	2838008
Iyear 2005	2789143	.0351505	-7.93	0.000	3478081	2100205
	2074826	.0352201	-5.89	0.000	2765127	1384525
cons	-1.204899	.0408709	-29.48	0.000	-1.285005	-1.124794

Figure 1.7 Table 3 Model 6:Meso Model featuring Post 1975 Cohort & Postmaterialism with year dummy coefficients.

coefficients.	ı	T	1	T	T	
predictors	Coef.	Std. Err.	Z	P>z	[95% Conf.	Interval]
POST 1975 COHORT	.435307	.0457338	9.52	0.000	.3456704	.5249435
POSTMATERIALISM	.0658804	.0062716	10.50	0.000	.0535883	.0781725
COGNITIVE SKILLS	.0959532	.0151209	6.35	0.000	.0663168	.1255896
2						
3	.2543047	.0146285	17.38	0.000	.2256334	.2829761
4	.389522	.0156635	24.87	0.000	.3588221	.4202218
5	.4909981	.0193329	25.40	0.000	.4531064	.5288899
6	.4667502	.0282105	16.55	0.000	.4114586	.5220419
EDUCATION	.1599683	.0075603	21.16	0.000	.1451504	.1747862
PROFESSIONAL/	.3960408	.0203576	19.45	0.000	.3561407	.4359409
EXECUTIVES						
LABOR	3088021	.0104045	-29.68	0.000	3291946	2884096
IDEOLOGY	.2455976	.005143	47.75	0.000	.2355174	.2556778
NET CONTRIBUTOR	.0796221	.0106564	7.47	0.000	.0587359	.1005083
EUROZONE	1.107621	.0111417	99.41	0.000	1.085783	1.129458
MEMEBR						
FEMALE	2322915	.0078972	-29.41	0.000	2477697	2168133
_Iyear_1976	2088176	.0370879	-5.63	0.000	2815086	1361266
_Iyear_1977	0980549	.0327607	-2.99	0.003	1622647	0338452
_Iyear_1978	0621028	.0329331	-1.89	0.059	1266504	.0024448
_Iyear_1980	3051387	.0323367	-9.44	0.000	3685175	24176
_Iyear_1981	4571462	.0319501	-14.31	0.000	5197673	3945252
_Iyear_1982	4409448	.0321257	-13.73	0.000	50391	3779796
_Iyear_1983	2686163	.0320862	-8.37	0.000	331504	2057285
_Iyear_1984	2758611	.0319524	-8.63	0.000	3384866	2132357
_Iyear_1985	1664516	.0316691	-5.26	0.000	228522	1043813
_Iyear_1986	.1036163	.0317605	3.26	0.001	.0413669	.1658657
_Iyear_1987	.1141909	.031893	3.58	0.000	.0516818	.1766999
Iyear 1988	.0597452	.0317648	1.88	0.060	0025126	.1220031
Iyear 1989	.2578218	.0297208	8.67	0.000	.1995701	.3160735
_Iyear_1990	.3116489	.0320108	9.74	0.000	.248909	.3743889
_Iyear_1991	.4533494	.0303975	14.91	0.000	.3937714	.5129273
Iyear 1992	.0610986	.031146	1.96	0.050	.0000535	.1221436
Iyear 1993	1723617	.0308266	-5.59	0.000	2327806	1119427
_Iyear_1997	5916614	.0332777	-17.78	0.000	6568845	5264382
_Iyear_2005	5647649	.0335015	-16.86	0.000	6304267	4991032
Iyear 2008	4849541	.0334597	-14.49	0.000	5505338	4193743
cons	-1.029716	.03846	-26.77	0.000	-1.105096	9543355
	1.02/110	.02010	20.77	0.000	1.105070	.75 15555

Figure 1.8 Table 3 Model 7: Meso model featuring Age Segments & Postmaterialism with year dummy coefficients.

coefficients.		T		1	1	1
PREDICTORS	Coef.	Std. Err.	Z	P>z	[95% Conf.	Interval]
	00015::	0.1.00		0.556	0404	0.5.1.5.5
AGE SEGMENT	.0031914	.0108936	0.29	0.770	0181597	.0245425
40-54	0.2.70.1.76	2122127		0.074	07.42.72	0.1.00.10.5
25-39	0350479	.0108195	-3.24	0.051	0562537	0138421
15-24	.0484902	.0124261	3.90	0.000	.0241355	.0728448
POSTMATERIALISM	.0648073	.006311	10.27	0.000	.0524379	.0771767
COGNITIVE SKILLS	.095041	.015162	6.27	0.000	.0653241	.124758
2						
3	.2538115	.0147015	17.26	0.000	.2249971	.282626
4	.3871689	.0158408	24.44	0.000	.3561216	.4182163
5	.4902638	.0194308	25.23	0.000	.4521801	.5283475
6	.4702256	.0282298	16.66	0.000	.4148961	.525555
EDUCATION	.1610774	.0077025	20.91	0.000	.1459808	.1761739
PROFESSIONAL/	.4042014	.0204719	19.74	0.000	.3640773	.4443255
EXECUTIVES						
LABOR	3043019	.010701	-28.44	0.000	3252755	2833284
IDEOLOGY	.2444379	.0051589	47.38	0.000	.2343266	.2545491
NET CONTRIBUTOR	.0812384	.0106848	7.60	0.000	.0602966	.1021803
EUROZONE	1.107355	.0111485	99.33	0.000	1.085504	1.129206
MEMEBR						
FEMALE	2303741	.0079324	-29.04	0.000	2459213	2148269
_Iyear_1976	2084021	.0370911	-5.62	0.000	2810992	135705
_Iyear_1977	09759	.0327642	-2.98	0.003	1618067	0333733
_Iyear_1978	0614124	.0329368	-1.86	0.062	1259673	.0031424
_Iyear_1980	3046432	.0323406	-9.42	0.000	3680295	2412568
_Iyear_1981	4563978	.0319534	-14.28	0.000	5190252	3937704
_Iyear_1982	4401051	.0321293	-13.70	0.000	5030774	3771329
_Iyear_1983	2673742	.0320905	-8.33	0.000	3302705	204478
_Iyear_1984	2749851	.0319559	-8.61	0.000	3376176	2123526
_Iyear_1985	1651987	.0316731	-5.22	0.000	2272768	1031205
_Iyear_1986	.1052366	.0317654	3.31	0.001	.0429775	.1674957
	.1147688	.0318976	3.60	0.000	.0522507	.1772868
_Iyear_1988	.06047	.0317692	1.90	0.057	0017965	.1227365
	.2587482	.0297286	8.70	0.000	.2004813	.3170151
	.3113885	.0320203	9.72	0.000	.2486298	.3741471
	.454035	.0304081	14.93	0.000	.3944364	.5136337
Iyear 1992	.0622197	.0311554	2.00	0.046	.0011563	.1232831
•						
Iyear_1992 Iyear_1993 Iyear_1997 Iyear_2005 Iyear_2008 cons	.0622197 1707691 5896075 5137185 442128 -1.031326	.0311554 .0308372 .0332951 .0331594 .0332649 .0385156	2.00 -5.54 -17.71 -15.49 -13.29 -26.78	0.046 0.000 0.000 0.000 0.000 0.000	.0011563 2312088 6548647 5787097 5073261 -1.106815	.1232831 1103293 5243502 4487274 37693 9558372

Figure 1.9: With Cognitive Skills separated into education & political discussion

Predictors	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Postmaterialism	.0120896	.063323	0.19	0.851	1228802	.1470593
Political Discussion	.3087172	.0931914	3.31	0.005	.1100845	.50735
Education	.0712379	.0776133	0.92	0.373	0941909	.2366666
Ideology	.1181775	.1209503	0.98	0.344	1396219	.3759769
GDP	.011342	.0036429	3.11	0.007	.0035774	.0191066
Inflation	0002209	.0026221	-0.08	0.934	0058097	.005368
Unemployment	0067597	.0044374	-1.52	0.148	0162177	.0026984
Age	0354861	.0325971	-1.09	0.293	1049651	.0339929
_cons	5177729	.4321204	-1.20	0.249	-1.438816	.4032699
Obs 240						
Prob > F 0.0015						
R-sq:						
within 0.3020						
between 0.0044						
overall 0.1281						

Figure 1.10: Macro Model Correlation Matrix

Support	Postmat	Cog Mobility	Ideo	GDP	Inflation	Unem.
Support   1.0000						
Postmaterial   -0.0129	1.0000					
Cog. Mobility 0.2576	0.6728	1.0000				
Ideology   -0.2225	0.0882	0.0090	1.0000			
GDP   0.2284	0.0775	-0.1406	0.0652	1.0000		
Inflation   -0.1016	-0.5981	-0.4059	-0.0822	-0.1910	1.0000	
Unemployment   0.0298	-0.0832	-0.2363	-0.1926	-0.0225	-0.0846	1.0000

Figure 1.11: ANOVA (Analysis of Variance Matrix)

Source   Partial SS   c	df MS	F	Prob > F
Model   3.51579311	16 .219737	069	15.61
0.0000			
Nation   3.51579311	16 .219737	'069	15.61
0.0000			
Residual   4.22312084	300 .01407	7069	
Total   7.73891395	316 .02449	0234	
obs317			
R-squared 0.4543			
Root MSE.118647			

Figure 1.12 Postmaterialism Means by Nation

Sum	Summary of (mean) Postmaterialism							
Nation	Mean	Std. Dev.	Freq.					
France	1.8198878	.1031124	26					
Belgium	1.7933776	.07029109	26					
Netherlands	1.9817783	.13002229	26					
Germany W	1.8545241	.15076372	26					
Italy	1.7208811	.11209414	26					
Luxembour	1.860528	.13875721	24					
Denmark	1.9505856	.20080532	24					
Ireland	1.7196516	.10134643	24					
Great Brit	1.8756408	.1029507	24					
N. Ireland	1.7174107	.12469042	23					
Greece	1.6844556	.05779561	19					
Spain	1.7630476	.10307764	14					
Portugal	1.5860806	.05480226	14					
Germany E	1.7788349	.0645675	9					
Finland	1.9096227	.12790753	4					
Sweden	2.113268	.045202	4					
Austria	1.8038406	.05947238	4					
Total	1.8103935	15649356	317					

Figure 1.13 Summary Statistics Postmaterialism

	Percentiles	Smallest	
1%	1.510204	1.47138	
5%	1.587044	1.498328	
10%	1.624309	1.499305	Obs 317
25%	1.697266	1.510204	Sum of Wgt. 317
50%	1.800805		Mean 1.810394
	Percentiles	Largest	Std. Dev1564936
75%	1.896686	2.1928	Variance .0244902
90%	2.037717	2.19855	Skewness .3946532
95%	2.099059	2.211716	Kurtosis 2.720407
99%	2.1928	2.2276	

Figure 2.1 EB Data Pre period

Predictors	b	Z	P>z	%	%StdX	SDofX
Fredictors	υ	Z	r>z	70	%StuA	SDOIA
High Cognitive	0.07510	8.013	0.000	7.8	3.1	0.4123
High Human Capital	0.10031	6.595	0.000	10.6	3.6	0.4123
Professionals/Executives	0.33565	16.914	0.000	39.9	7.8	0.3331
				-25.1		
Labor	-0.28950	-28.915	0.000		-10.1	0.3694
Ideology	0.55552	33.903	0.000	74.3	77.8	1.0356
Ideology Squared	-0.05497	-20.185	0.000	-5.3	-29.2	6.2838
Net Recipient	0.29993	15.154	0.000	35.0	13.7	0.4288
Eurozone Member	1.05655	68.501	0.000	187.6	55.2	0.4163
Age	-0.03884	-10.249	0.000	-3.8	-4.0	1.0502
Female	-0.22934	-30.624	0.000	-20.5	-10.8	0.4997
_Ination_2	0.23104	13.106	0.000	26.0	6.1	0.2582
_Ination_3	0.96726	53.970	0.000	163.1	34.8	0.3085
_Ination_4	-0.11659	-7.460	0.000	-11.0	-3.4	0.2971
_Ination_5	0.85119	48.033	0.000	134.2	27.8	0.2878
_Ination_6	0.81042	30.036	0.000	124.9	15.2	0.1747
_Ination_7	0.08203	5.486	0.000	8.5	2.6	0.3072
_Ination_8	-0.28263	-13.085	0.000	-24.6	-6.9	0.2541
_Ination_11	-0.41471	-20.055	0.000	-33.9	-10.3	0.2626
_Ination_12	-0.04334	-1.834	0.067	-4.2	-0.9	0.2062
_Ination_15	-1.66892	-51.669	0.000	-81.2	-16.6	0.1087
_Ination_16	-0.75233	-29.470	0.000	-52.9	-10.4	0.1464
_Ination_17	-0.38317	-15.346	0.000	-31.8	-5.6	0.1518
_Iyear_1976	0.02194	0.541	0.589	2.2	0.4	0.1803
_Iyear_1977	0.11372	2.780	0.005	12.0	2.0	0.1777
	0.19403	4.711	0.000	21.4	3.5	0.1748
	0.25924	6.296	0.000	29.6	4.7	0.1770
	-0.09133	-2.255	0.024	-8.7	-1.6	0.1797
	-0.09358	-2.122	0.034	-8.9	-1.2	0.1318
	-0.15560	-3.876	0.000	-14.4	-2.8	0.1834
	0.04119	1.023	0.306	4.2	0.8	0.1855
	0.03219	0.804	0.421	3.3	0.6	0.1892
	0.12651	3.170	0.002	13.5	2.5	0.1963
	0.38092	9.544	0.000	46.4	8.1	0.2036
_Iyear_1987	0.39178	9.778	0.000	48.0	8.2	0.2006
_Iyear_1988	0.32979	8.250	0.000	39.1	6.9	0.2010
	0.51840	13.582	0.000	67.9	15.1	0.2720
Iyear 1990	0.58272	14.437	0.000	79.1	12.4	0.2011
Iyear 1991	0.75334	19.202	0.000	112.4	19.9	0.2404
Iyear 1992	0.38838	10.061	0.000	47.5	10.2	0.2494
Iyear 1993	0.26868	6.759	0.000	30.8	5.7	0.2494
Iyear 1995	0.02164	0.739	0.607	2.2	0.3	0.2000
Iyear 1996	-0.10709	-2.813	0.007	-10.2	-2.7	0.1555
	-0.10709	-1.881	0.060	-6.8	-2.1	0.2372
			+			
_Iyear_1998	0.15640	3.971	0.000	16.9	3.4	0.2114

Figure 2.2 Post EB

Predictors	b	Z	P>z	%	%StdX	SDofX
High Cognitive	0.18806	8.447	0.000	20.7	7.5	0.3867
High Human Capital	0.42773	17.320	0.000	53.4	19.1	0.4087
Professionals/Executives	0.34452	7.641	0.000	41.1	7.4	0.2076
Labor	-0.35462	-15.442	0.000	-29.9	-11.8	0.3529
Ideology	0.53884	14.171	0.000	71.4	70.4	0.9894
Ideology Squared	-0.07499	-11.805	0.000	-7.2	-36.0	5.9463
Net Recipient	1.40981	24.167	0.000	309.5	80.7	0.4195
Eurozone Member	0.61239	16.813	0.000	84.5	32.3	0.4571
Age	-0.15704	-19.836	0.000	-14.5	-15.0	1.0334
Female	-0.31206	-18.947	0.000	-26.8	-14.4	0.5000
_Ination_2	0.60951	13.825	0.000	84.0	15.4	0.2345
_Ination_3	0.88991	21.147	0.000	143.5	28.1	0.2779
_Ination_4	0.29990	7.533	0.000	35.0	8.4	0.2689
_Ination_5	0.67926	14.366	0.000	97.2	15.9	0.2173
_Ination_6	1.52032	23.257	0.000	357.4	31.8	0.1817
_Ination_7	0.61110	18.692	0.000	84.2	21.6	0.3205
_Ination_9	-0.02595	-0.723	0.469	-2.6	-0.7	0.2575
_Ination_11	-0.85030	-14.049	0.000	-57.3	-19.0	0.2477
_Ination_12	-0.63851	-10.269	0.000	-47.2	-14.0	0.2361
_Ination_13	-0.75055	-12.334	0.000	-52.8	-16.5	0.2400
_Ination_16	-0.36951	-9.950	0.000	-30.9	-10.3	0.2945
_Iyear_2000	-0.08454	-2.904	0.004	-8.1	-3.5	0.4179
_Iyear_2001	-0.07658	-2.634	0.008	-7.4	-3.1	0.4176
_Iyear_2002	0.04717	1.622	0.105	4.8	2.0	0.4205
_Iyear_2003	0.11456	2.494	0.013	12.1	2.3	0.2007
_Iyear_2004	0.03931	1.236	0.217	4.0	1.5	0.3686

Figure 2.3 *Pre-EMU EB*Prvalues w/ all at median
ologit: Predictions for member
Confidence intervals by delta method

	•	95% Conf.	Interval
Pr(y=bad x):	0.1009	[ 0.0941,	0.1077]
Pr(y=neither	x): 0.2221	[ 0.2126,	0.2317]
Pr(v=good x)	: 0.6770	[ 0.6608,	0.69321

I	High Cog.	ННС	Professiona	labor	Ideol	Ideol Squ	. Net R	lec Euroz	zone Age	Female	
x=	0	0	0	0	3	9	0	1	3	1	
	_Ination_	2 _In	ation_3 _Ir	nation_4	_Inatio	n_5 _Ina	ation_6	_Ination_7	_Ination_	8	
x=	0		0 0		0	0		0	0		
_Iı	nation_11	_Inatio	n_12 _Inati	on_15 _	_Ination_	16 Ination_	_17 _Iye	ear_1976 _	_Iyear_1977	_Iyear_	_1978
x=	0	0	0		0	0	(	)	0	0	
_	_Iyear_19	79 _Iy	ear_1980 _1	year_19	81 _Iyea	ur_1982 _I	year_198	3 _Iyear_1	1984 _Iyear_	1985	
_Iye	ar_1986										
x=	0	0	0		0		0	0	0		0
	_Iyear_198	7 _Iye	ear_1988 _I	year_198	39 _Iyea	r_1990 _Iy	ear_199	1 _Iyear_1	992 _Iyear	_1993	
_Iye	ar_1995										
x=	0	0		0	0		0	0		0	0
_	Iyear_199	5 _Iye	ar_1997 _Iy	ear_199	8	•	•				
x=	0	0		0			•	•	•		

Figure 2.4 *Post EMU EB* prvalue, rest(median) ologit: Predictions for member Confidence intervals by delta method

95% Conf. Interval	
Pr(y=bad x): 0.1312 [ 0	0.1223, 0.1401]
Pr(y=neither x): 0.2794 [	0.2692, 0.2895]
Pr(y=good x): 0.5894 [	0.5710, 0.6078]

	High Cog.	НС р	rofessional	labor	ideol	ideolsqu	netrec	eurozo	ne		
x=	0	0	0	0	3	9	0	1			
	age	sex	_Ination_	2 _In	ation_3	_Ination_4	_Ina	tion_5	_Ination_6		
x=	3	1	0		0	0	0		0		
	_Ination_7	_Ination	9Inatio	n_11 _	_Ination_	12 _Ination	n_13	_Ination	_16 _Iyear_20	00	
_Iye	ear_2001										
x=	0	0	0	0	0	0		0	0	0	
_	Iyear_2002	_Iyear_	2003 _Iyea	ar_2004	1						
x=	0	0		0							

Figure 2.4 EVS Pre-EMU

Predictors	b	Z	P>z	%	%StdX	SDofX
Postmaterialist	-0.02706	-0.787	0.431	-2.7	-1.1	0.4133
High	0.18339	5.188	0.000	20.1	7.9	0.4139
Cognitive						
High Human	0.32002	6.916	0.000	37.7	10.9	0.3238
Capital						
Professional	-0.05931	-1.088	0.277	-5.8	-1.6	0.2785
Labor	-0.09175	-3.026	0.002	-8.8	-4.3	0.4822
Net Recipient	-1.37724	-12.838	0.000	-74.8	-44.1	0.4227
Eurozone	0.47912	6.785	0.000	61.5	18.2	0.3490
Age	-0.02965	-2.099	0.036	-2.9	-2.9	0.9937
Female	-0.06009	-2.135	0.033	-5.8	-3.0	0.4993
_Ination2_2	-0.00358	-0.056	0.955	-0.4	-0.1	0.3221
_Ination2_3	-0.53275	-7.048	0.000	-41.3	-11.7	0.2328
_Ination2_4	-0.28698	-4.756	0.000	-24.9	-10.4	0.3844
_Ination2_5	0.66801	9.630	0.000	95.0	21.9	0.2961
_Ination2_6	-0.05454	-0.433	0.665	-5.3	-0.6	0.1164
_Ination2_7	-0.64246	-8.626	0.000	-47.4	-14.9	0.2515
_Ination2_8	1.76694	16.010	0.000	485.3	53.4	0.2421
_Ination2_12	1.24573	11.709	0.000	247.5	40.2	0.2713
_Ination2_13	1.49256	13.673	0.000	344.8	44.4	0.2462
_Ination2_15	-0.65622	-7.680	0.000	-48.1	-12.0	0.1940
_Ination2_18	-0.80482	-9.887	0.000	-55.3	-15.6	0.2110

Figure 2.5 EVS Post EMU

Predictors	b	Z	P>z	%	%StdX	SDofX
Postmaterialist	0.02871	0.605	0.545	2.9	1.1	0.3738
High	0.23803	5.439	0.000	26.9	10.4	0.4145
Cognitive						
High Human	0.41321	8.114	0.000	51.2	16.3	0.3662
Capital						
Professional	0.27169	5.273	0.000	31.2	10.3	0.3603
Labor	-0.30525	-4.719	0.000	-26.3	-8.3	0.2831
Net Recipient	0.28876	2.493	0.013	33.5	11.8	0.3867
Eurozone	0.42842	4.928	0.000	53.5	14.5	0.3164
Age	-0.06250	-3.320	0.001	-6.1	-5.7	0.9347
Female	-0.01895	-0.537	0.591	-1.9	-0.9	0.5000
_Ination2_2	0.39707	4.800	0.000	48.7	11.5	0.2744
_Ination2_3	-0.38079	-4.597	0.000	-31.7	-9.8	0.2712
_Ination2_4	-0.67725	-8.459	0.000	-49.2	-18.3	0.2993
_Ination2_5	0.70473	7.092	0.000	102.3	16.3	0.2148
_Ination2_6	0.57277	6.519	0.000	77.3	15.7	0.2546
_Ination2_11	-0.36558	-3.039	0.002	-30.6	-8.6	0.2473
_Ination2_12	-0.07515	-0.593	0.553	-7.2	-1.6	0.2135
_Ination2_13	0.38445	2.897	0.004	46.9	8.0	0.1994
_Ination2_15	-0.42579	-4.860	0.000	-34.7	-9.9	0.2461
_Ination2_16	-0.80436	-9.930	0.000	-55.3	-21.4	0.2997
_Ination2_17	-0.06937	-0.665	0.506	-6.7	-1.4	0.2084
_Ination2_18	-0.95771	-10.757	0.000	-61.6	-22.1	0.2603

Figure 2.6 *Pre EMU prvalue, rest(median)* logit: Predictions for conf Confidence intervals by delta method

		95% Con	f. Interval
Pr(y=1 x):	0.5752	[ 0.5496,	0.6009]
Pr(y=0 x):	0.4248	[ 0.3991,	0.4504]

	Postmaterialist	High Cog.	HHC	Professional	Labor Net R	ec. Eurozon	e Age Female	e
x=	0	0	0	0	0 0	1	3 1	
	_Ination2_2	_Ination2_3	_Ination2_	4 _Ination2_5	_Ination2_6	_Ination2_7	_Ination2_8	
x=	0	0	0	0	0	0	0	
_Ination2_12 _Ination2_13 _Ination2_15 _Ination2_18								
x=	0	0	0	0				

Figure 2.7 Post EMU prvalue, rest(median) logit: Predictions for Integration Support Confidence intervals by delta method

		95% Con	nf. Interval		
Pr(y=1 x):	0.4832	[ 0.4528,	0.5136]		
Pr(y=0 x):	0.5168	[ 0.4864,	0.5472]		

	Postmateria	list High C	log. HHC	Professional	Labor	Net Rec.	Eurozone	Age	Female
x=	0	0	0	0	0	0	1	3	1
_Iı	nation2_2	_Ination2_3 _	Ination2_4	_Ination2_5	_Ination2_6	_Ination2_11	_Ination2_	12	
_Iı	nation2_13								
x=	0	0	0	0	0	0	0		0
_Ination2_15 _Ination2_16 _Ination2_17_Ination2_18									
x=	0	0	0	0		•			

## REFERENCES

Abdelal, R., Blyth, M., & Parsons, C. (2010). *Constructing the International Economy*. Ithaca, N.Y.: Cornell University Press.

Anderson, C.J. (1998). "When in Doubt, Use Proxies: Attitudes Toward Domestic Politics and Support for European Integration." *Comparative Political Studies* 31 (5):569-601.

Anderson, C. J. & Reichert, M. S. (1996). "Economic Benefits and Support for Membership in the European Union: A Cross-National Analysis." *Journal of Public Policy* 15, 3: 231-49.

Asch, S.E. (1952). *Social Psychology*. Prentice-Hall, NJ. Reprinted (1987). Oxford, England: Oxford University Press

Brinegar, A., Jolly, S. & Kitschelt, H. (2004). 'Varieties of Capitalism and Political Divides over European Integration,' in Gary Marks and Marco Steenbergen (eds) *European Integration and Political Conflict*, pp. 62–89. Cambridge: Cambridge University Press.

Brinegar, A. & Jolly S. (2004). 'Measuring Support for European Integration Using the Eurobarometer', in John Geer (ed.) *Public Opinion and Polling around the World*, pp. 497–503. Denver.

Broz, L.J, & Frieden, J.A. (2001). "The Political Economy of International Monetary Relations." *Annual Review of Political Science* 4:317–43. CO: ABC-CLIO.

Broz, L.J., Frieden, J. & Weymouth S. (2008). "Exchange Rate Policy Attitudes: Direct Evidence from Survey Data." *IMF Staff Papers* 55 (3).

Budge, I., Robertson, D. & Hearl, D. (1987). *Ideology, Strategy, and Party Change*. Cambridge: Cambridge University Press.

Caldeira, G. & Gibson, J. (1995). "The Legitimacy of the Court of Justice in the European Union: Models of Institutional Support." *American Political Science Review* 89: 356-376.

Carey, S. (2002). "Undivided Loyalties: Is National Identity an Obstacle to European Integration?." *European Union Politics* 3 (4): 387–413.

Chong, D., & Druckman, J. N. (2007). "Framing Theory." *Annual Review of Political Science*, 10, 103-126.

Cleeland-Knight, S. (2010). 'Divested Interests: Globalization and the New Politics of Exchange Rates." *Business and Politics*, Vol. 12, Iss. 2

Commons, J.R. (1968). *Legal Foundations of Capitalism*. Madison: University of Wisconsin Press.

Corlett, M. (1990). "Multicollinearity." In *Econometrics*, ed. James Eatwell et al. New York: Norton

Dalton R. J. & Eichenberg, R. C. (1993). "Europeans and the European Community: The Dynamics of Public Support for European Integration." *International Organization* 47 (4): 507-34.

Dalton R. J. & Eichenberg, R. C. (2007). "Post-Maastricht Blues: The Transformation of Citizen Support for European Integration, 1973 –2004." *Acta Politica*, 42: 128–152.

Deutsch, K.W. (1954). *Political Community at the International Level. Problems of Definition and Measurement*. New York: Doubleday & Company.

Druckman, J.N., Green, D.P., Kuklinski, J.H., & Lupia, A.(2011). *Cambridge Handbook of Experimental Political* Science eds. New York: Cambridge UniversityPress.

Easton, D. (1975). "A Re-Assessment of the Concept of Political Support." *British Journal of Political Science*, Vol. 5, No. 4 (Oct.), pp. 435-457

Ehin P. (2001). "Determinants of Public Support for EU Membership: Data from Baltic Countries." *European Journal of Political Research* vol.40, No 1, p. 31-56.

Eurostat Release. (2011). http://epp.eurostat.ec.europa.eu/cache/ITY\_PUBLIC/3-01042011-BP/EN/3-01042011-BP-EN.PDF

Finnemore, M. & Sikkink K. (1998). "International Norm Dynamics and Political Change." *International Organization*, Vol. 52, pp. 887-917.

Fleming, M. (1962). "Domestic Financial Policies under Fixed and under Floating Exchange Rates." IMF Staff Papers 9(3), 369-79

Franklin, M., Marsh, M., & Wlezien, C. (1994). "Attitudes toward Europe and Referendum Votes: A Response to Siune and Svensson." *Electoral Studies* 13: 117-121.

Franklin, M. & C.van der Eijk. (2004). 'Potential for Contestation on European Matters at National Elections in Europe,' in Gary Marks and Marco Steenbergen (eds) *European Integration and Political Conflict*, pp. 32–50. Cambridge: Cambridge University Press.

Frieden, J. (1991). "Invested Interest: The Politics of National Economic Policies in a World of Global Finance." *International Organization*, 45, 4 Autumn, pp. 425-452

Frieden, J. & Rogowski, R. (1996). "The Impact of the International Economy on National Policies." In *Internationalization and Domestic Politics*, ed. R Keohane, H Milner, New York: Cambridge University Press. pp. 25.47.

Gabel, M., & Palmer, H. (1995). "Understanding Variation in Public Support for European Integration." *European Journal of Political Research* 27: 3-19.

Gabel, M. & Whitten, G. (1997). "Economic Conditions, Economic Perceptions and Public Support for European Integration." *Political Behavior* 19: 81-96.

Gabel, M.J. (1998a). "Interests and Integration: Market Liberalization, Public Opinion, and European Union." Ann Arbor: University of Michigan Press.

Gabel, M.J. (1998b). "Public support for European integration: An Empirical Test of Five Theories." *Journal of Politics* 60 (2): 333-54.

Garavaglia, S. & Sharma, A. (1996). "Statistical Analysis of Self-Organizing Maps," Proceedings of the Ninth Northeast SAS User's Group, Boston, MA, October 7-9.

Garry, J. & Tilley, J. (2009). "The Macroeconomic Factors Conditioning the Impact of Identity on Attitudes towards the EU." *European Union Politics* 10 (3): 361–379.

Giddens A. (1984). *The Constitution of Society: Outline of the Theory of Structuration*. Berkeley, CA.

Greene, W. (1993). Econometric Analysis. New York: Macmillan.

Haas, E. (1958). *The Uniting of Europe: Political, Economic and Social Forces, 1950-1957*. Stanford, CA: Stanford University Press.

Hansen, O. & Tol, R.S.J. (2003). "A Refined Inglehart Index of Materialism and Postmaterialism," <u>Working Papers</u> FNU-35, Research unit Sustainability and Global Change, Hamburg University.

Heckscher, E. (1949) "The Effect of Foreign Trade on the Distribution of Income." Readings in the Theory of International Trade, vol. 4. Philadelphia: Blakiston Company.

Hiscox, M.J. (2002). *International Trade and Political Conflict*. Princeton, N.J.: Princeton University Press.

Hobolt, S. (2007). 'Taking Cues on Europe? Voter Competence and Party Endorsements in Referendums on European Integration'. *European Journal of Political Research*, 46(2): 151-182.

Hooghe, L. & Marks G. (2004). "Does Identity or Economic Rationality Drive

Public Opinion on European Integration?." *PS Political Science and Politics* 37 (3): 415-420 JUL.

Hooghe, L., & Marks, G.(2008). "A Postfunctionalist Theory of European Integration: From Permissive Consensus to Constraining Dissensus." *British Journal of Political Science* 39: 1–23.

Inglehart, R. (1970a). "Cognitive Mobilization and European Identity." *Comparative Politics* 3 (1): 45-70.

Inglehart, R. 1970b. "Public Opinion and Regional Integration." *International Organization* 24:764-95.

Inglehart, R. (1971a). "The Silent Revolution in Europe: Intergenerational Change in Post-Industrial Societies." *American Political Science Review*, 65:4, 991–1017.

Inglehart, R. (1971b). "Changing Value Priorities and European Integration." *Journal Of Common Market Studies* 10(1), 1.

Inglehart, R. (1977). *The Silent Revolution: Changing Values and Political Styles among Western Publics*. Princeton, NJ: Princeton University Press.

Inglehart, R. (1990). *Culture Shift in Advanced Industrial Societies*, Princeton, NJ: Princeton University Press.

Inglehart, R., Rabier, J.R. & Reif, K. (1991). "The Evolution of Public Attitudes toward European Integration: 1970-86." In *Eurobarometer: The Dynamics of European Public Opinion*, ed. K. Reif and R. Inglehart. London: Macmillan.

Inglehart, R. (2008). "Changing Values among Western Publics from 1970 to 2006." West European Politics, Vol. 31, Iss. 1-2

Iyengar, S., & Kinder, D.R. (1987). *News that Matters: Television and American Opinion*. Chicago: University of Chicago Press.

Janssen, J. I.H. (1991). "Postmaterialism, Cognitive Mobilization and Public Support for European Integration." *British Journal of Political Science* vol. 21 (4): 443-468.

Jonung, L.(2004). "To Be or Not to Be in the Euro? Benefits and Costs of Monetary Unification as Perceived by Voters in the Swedish Euro Referendum 2003." *The Cato Journal*, Vol. 24, No. numbers 1-2 (2004): pp. 123-149.

Kentman C. (2008). "Determinants of Support for EU Membership in Turkey: Islamic attachments, utilitarian considerations and national identity." *European Union Politics* 9: 487-510.

Kim, M. (2010). "State Preferences and Institutional Feedback: CAP and European Integration." *International Political Science Review.* vol. 31 no. 3 323-345.

Kim, S. (1995). "On European Economic Integration: Lessons from American History." News-letter of the APSA's Organized Section in Comparative Politics 6(1): 10-12.

King, G., Keohane, R.O. & Verba, S. (1994). *Designing Social Inquiry*. Princeton, NJ: Princeton University Press.

Knight, J. (1992). Institutions and Social Conflict. New York: Cambridge University Press.

Lukes, S. (1973). Power: A Radical View. Basingstoke: Macmillan.

Mansfield, E.D. & Mutz, D.C. (2009). "Support for Free Trade: Self-Interest, Sociotropic Politics, and Out-Group Anxiety." *International Organization* 63 (3): 425-457.

March, J.G. & Olsen J.P. (1984). "The New Institutionalism: Organizational Factors in Political Life." *American Political Science Review* 78 (3): 734-749.

March, J. G. &. Olsen, J. P. (2004). "The Logic of Appropriateness." University of Oslo: ARENA. Centre for European Studies, Working Paper No. 9

Marks G., Hooghe L., Nelson M. & Edwards E. (2006). "Party Competition and European Integration in East and West: Different Structure, Same Causality," *Comparative Political Studies* 39: 155–175.

Mayda, A.M, and Rodrik D. (2005). "Why Are Some People (and Countries) More Protectionist Than Others?" *European Economic Review* Vol. 49:1393-1430.

Mckelvey, R.D. & Palfrey, T.R. (1992). "An Experimental Study of the Centipede Game. *Econometrica* 60(4): 803-836

McKeown, T. (1983), "Hegemonic Stability Theory and 19th Century Tariff Levels in Europe" *International Organization*, 37, 1, pp. 73-91.

McLaren, L.M. (2002). "Public Support for the European Union: Cost/Benefit Analysis or Perceived Cultural Threat?." *Journal of Politics* 64: 551-566.

Medrano, D.J. (2004). Framing Europe. Princeton University Press.

Morgan, A. & Wilcox, C. (1992). "Anti-feminism in Western Europe 1975-1987." West European Politics, 15(4), 151-169.

Mundell, R.A. (1963) "Capital Mobility and Stabilization Policy under Fixed and Flexible Exchange Rates." *Canadian Journal of Economics and Political Science* 29, 475-85.

Nelsen, B.F. & Guth, J.L. (2000) "Exploring the Gender Gap: Women, Men, and Public Attitudes toward European Integration." *European Union Politics* 1(3): 267–91. Neyman, J.(1923). "On the Application of Probability Theory to AgriculturalExperiments. Essay on Principles. Section 9." *Statistical Science* 5 (4): 465–472.

North, D. (1990). *Institutions, Institutional Change and Economic Performance*, Cambridge: The University Press.

North, D. (1991). "A Transaction Cost Theory of Politics" *The Journal of Theoretical Politics*, 355-68.

Oatley, T. (1999). "How Constraining is Capital Mobility? The Partisan Hypothesis in an Open Economy." *American Journal of Political Science* 43(4): 1003-1027.

Oatley, T. (1997) *Monetary Politics: Exchange Rate Cooperation in the European Union*, Ann Arbor, The University of Michigan Press.

Oatley, T. (2010). "Real Exchange Rates and Trade Protectionism." *Business and Politics*, 2010, vol. 12, issue 2.

Olsson, A. (2006). "Regional Minority Nationalist Attitudes towards European Integration." *Fifteenth International Conference of the Council for European Studies*, (p. 1-29). Chicago.

Ostrom, V.. (1980). "Artisanship and Artifact." Public Administration Review 40:309-17.

Ostrom, E., Walker, J., & Gardner, R. (1992). Covenants with and without a sword: Self-governance is possible." *American Political Science Review*, 86(2), 404–417.

<u>Pérez-Nievas, S.</u> & Mata-López, <u>T.</u> (2011) "National Identity and Attitudes towards the EU." In *I<sup>st</sup> European Conference on Comparative Electoral Research*. University of National and World Economy, Sofia, Bulgaria.

Rubin, D.B. (1974). "Estimating Causal Effects of Treatments in Randomized and Nonrandomized Studies." *Journal of Educational Psychology* 66 (5): 688–701.

Scheve, K. (2003). Public Demand for Low Inflation. *Bank of England Working Paper No172*. London: Bank of England.

Scheve, K.F. & Slaughter, M. J. (1998). "What Determines Individual Trade Policy Preferences?" *NBER Working Paper* #6531.

Scheve, K.F. & Slaughter, M.J. (2004). "Economic Insecurity and the Globalization of Production." *American Journal of Political Science* Vol. 48 No. 4 (October).

Sebenius, J. K. (1992). "Negotiation Analysis: A Characterization and Review." *Management Science* 38(1): 18-38.

Shepsle, K.A.. (1975). "Congressional Committee As-signments: An Optimization Model with Institutional Constraints." *Public Choice* 22:55-78.

Shepsle, K.A. (1979). "Institutional Arrangements and Equilibrium in Multidimensional Voting Models." *American Journal of Political Science* 23:27-59.

Sniderman, P. (2011). "The Logic and Design of the Survey Experiment: An Autobiography of a Methodological Innovation." In *Cambridge Handbook of Experimental Political* Science eds Druckman, James N., Donald P. Green, James H. Kuklinski, and Arthur Lupia, eds. New York: Cambridge University Press.

Steenbergen, M.R., Edwards, E.E. & de Vries, C.E. (2007). "Who's Cueing Whom? Mass Elite Linkages and the Future of European Integration." European Union Politics 8(1):13 35.

Stolper, W., & Samuelson, P. (1941). "Protection and Real Wages." *Review of Economic Studies* 9(2):58-73.

Tilley, J.& Hobolt, S.B. (2011). "'Is the government to blame? An experimental test of how partisanship shapes perceptions of performance and responsibility'." *The Journal of Politics* 

Tomz, M. (2007). "Domestic Audience Costs in International Relations: An Experimental Approach."

International Organization, Vol. 61, No. 4 (Autumn), pp. 821-840

Wendt, A. (1999). *Social Theory of International Politics*. Cambridge: Cambridge University Press

Wessels, B. (1995). "Evaluations of the EC: Elite or Mass-Driven?" In *Public Opinion and International Governance*, ed. Oskar Niedermayer and Richard Sinnott. New York: Oxford University Press.

Wildavsky, A. (1989). "A Cultural Theory of Leadership." In *Leadership and Politics: New Perspectives in Political Science*, ed. Bryan D. Jones. Lawrence: University of Kansas Press.