

# **Ideology, Values, and Preferences in Swiss Politics**

Inauguraldissertation zur Erlangung der Würde eines Doctor rerum socialium  
der Wirtschafts- und Sozialwissenschaftlichen Fakultät der Universität Bern

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2011

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Die Fakultät hat diese Arbeit am 19.05.2011 auf Antrag der beiden Gutachter Prof. Dr. Marco R. Steenbergen und Prof. Dr. Eldad Davidov als Dissertation angenommen, ohne damit zu den darin ausgesprochenen Auffassungen Stellung nehmen zu wollen.



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## Preface

Why might one person give high importance to social egalitarianism while another person with a similar social background values free market values more? Why does one out of a pair of siblings vote for the Liberals but his brother for the Conservatives? These and similar fundamental questions of political reasoning and behavior have driven my research throughout my dissertation years. For instance, in the book chapter “Values and Value Change” (published in *Value Change in Switzerland*, 2010) Marco R. Steenbergen and I discuss the theoretical concepts of values and value change and describe empirical patterns found in Switzerland. Additionally, in the working paper “Der Stadt-Umland-Graben”, I elaborate on the factors that make central cities more liberal than the suburbs. Further, in a methodological paper (“Ecological Inference and 134 Votes”) co-written with Lucas Leemann, we evaluate several methods of ecological inference and tested whether individual voting behavior can be confidently inferred from aggregate data.

The core of my cumulative dissertation, however, constitutes the three papers included in this volume, which investigate on crucial determinants of political behavior, namely: Ideology, values, and preferences. The first paper focuses on the role of values in the voting behavior of *citizens*, the second paper on the role of preferences in the voting behavior of *legislators*, and the third paper compares the ideological properties of *citizens* and *politicians*.

The starting point of my first paper is a set of recent findings from social psychological research, which indicates that abstract personal values influence political behavior. In “Values and Votes: The Indirect Effect of Personal Values on Political Behavior,” appearing in the *Swiss Political Science Review* (2011, Issue 1), I question this direct impact of personal values on voting behavior. In contrast to existing theories, I hypothesize that personal values affect voting behavior only indirectly through political values. To demonstrate such indirect effects empirically, I analyze several structural equations models based on data of the SELECTS 2007 Survey. The empirical findings of the study strongly confirm the hypothesis of indirect effects and lead to the conclusion that personal values need first to be translated into political values to become effective on political behavior.

Personal beliefs are not only important determinants of citizens’ political behavior, but likewise for the voting behavior of legislators. The second paper, “Effects of Party Influence and Personal Preferences on Legislative Voting Behavior of Swiss MPs,” co-written with Daniel Schwarz and currently under review in *Legislative Studies Quarterly*, contributes to the “party vs. preferences” debate. This study is the first that aims to assess to what degree the voting behavior of Swiss legislators is determined by party influence or by their personal preferences. In addition, the multi-level approach that we have chosen allows us to determine whether party influence varies

systematically across different types of votes. This analysis makes use of an exceptional data set: The 500 roll call votes under investigation are a full sample of votes held in the Swiss National Council between 2008 and 2009. The completeness of this data allows us to eliminate concerns of selection bias. Legislators' preferences are also measured by extensive survey data exogenous to legislative voting behavior. The results confirm that both party influence and personal preferences are significant and independent factors in determining Swiss legislators' voting behavior. However, in regard to the conditional effects of vote type, our findings are rather mixed. Although party influence is found to be stronger during detailed deliberation processes, the reverse effect is not found: personal preferences do not become a stronger predictor in final votes. Similarly, "issue ownership" effects are found to be prevalent only amongst parties of the right, but not amongst left parties.

The last paper, "Comparing Candidates and Citizens in the Ideological Space" (published in *Swiss Political Science Review*, 2010), is co-written with Dominik Hangartner and Lucas Leemann. In this paper, we examine the ideological relationship between the Swiss political elite and the general public. Although the elite-mass relationship has been a cornerstone of political philosophy and theories of political representation, it has long been a blind spot in Swiss empirical research. Our paper sheds new light on this relationship by exploiting data gathered in SELECTS 2007 Survey, which allow us to directly compare the value orientations of political candidates and voters. Based on Bayesian ordinal factor analysis, our empirical findings suggest three central conclusions. First, the political elite is much more ideologically polarized than the general public. Second, and as a consequence, parties with accentuated value orientations represent their moderate electorates rather poorly. Likewise, successful candidates are found to be more radical and more distant from their party supporters than candidates who are not elected. These findings are broadly consistent with international research and therefore suggest that significant ideological differences exist also in Switzerland, despite its direct democratic institutions and the "semi-professional" parliament (*Milizsystem*). On a theoretical level, our results particularly challenge traditional spatial voting theory but accord nicely with the directional model of voting behavior.

I would like to take the opportunity to thank my co-authors – Daniel, Dominik, and Lucas – for their fruitful and exciting collaboration. Also, I thank Eldad Davidov for reviewing my dissertation as the *Zweitgutachter*. And lastly, I want to thank my *Doktorvater*, Marco R. Steenbergen, for always supporting me during my dissertation years.





## Values and Votes: The Indirect Effect of Personal Values on Voting Behavior

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### Introduction

A decade ago, Kuklinski (2001: 355) noted that the study of values was cyclical in political science: “It reached its nadir in the early 1970s, fell from prominence following a barrage of criticisms, and now once again is gaining momentum”. Ten years after Kuklinski introduced this notion, it is safe to say that the study of values has kept its momentum. Numerous studies have demonstrated the great and arguably growing importance of political values in the process of political reasoning and decision-making (see Kumlin and Knutsen 2005, Goren 2005, Ansolabehere et al. 2008, to name a few). It is now widely accepted that core political values are important determinants of political orientations and behavior (Jacoby 2006).

While the significance of political values is rather undisputed, one important question remains: What are the origins of political value orientation itself? Why does one person give high importance to social egalitarianism while the other, with a similar social background, accepts inequality? What is, in the end, the “backstop” of a political belief system (Tetlock et al. 1996: 27)? It seems that there must be something besides social and political predispositions that citizens can use to inform and organize their political preferences (Goren 2007). As Kuklinski (2001) rightly notes, few of us have reasoned and distinct attitudes on every political issue, but most of us have ideas about right and wrong, good and bad, from which ideas we can reach political judgments.

Early political psychologists believed that the backstop of a political value system lies within one’s identity (Lasswell 1930, Lane 1972). According to this view, political opinions are no more and no less than transformed private needs and personal motives, and are thereby closely related to the structure of personality. Thus a citizen does not merely hold conservative values, but is, as such, a conservative personality (Wilson 1973). More recently, social psychologists have revived this idea of the political man. According to them, political reasoning and behavior is mainly determined by abstract principles or personal values which reflect basic social and human needs (cf. Rohan and Zanna 1994, Braithwaite 1997).

One potentially valuable approach to studying the relationship between personal values and political reasoning is the values construct proposed by Shalom Schwartz (Feldman 2003). Schwartz and his colleagues not only demonstrated cross-culturally that people possess by and large a dozen basic personal values which are organized along two central dimensions (Schwartz 1992). Furthermore, Schwartz et al. (Schwartz 1996, Barnea and Schwartz 1998, Caprara et al. 2006) argue that these basic dimensions underlie political value orientations. One of these basic value dimensions runs from *openness to change* to *conservation* and is assumed to influence the political value

orientation *libertarianism vs. authoritarianism*. The second personal value dimension runs from *self-enhancement* to *self-transcendence* and is assumed to be associated with the political conflict line *left vs. right*.

At first sight, Schwartz' theory seems to be confirmed by empirical research. Several studies show that, as hypothesized, personal values are associated not only with political opinion but also with political behavior (Schwartz 1996, Barnea and Schwartz 1998, Caprara et al. 2006). However, this proposed relationship between personal values and political behavior needs to be scrutinized. Virtually all empirical studies presume – and test – direct relationships between personal values and voting behavior exclusively. Such research designs entirely neglect the well-known impact of political values on voting and as a result are not only prone to yielding biased findings in general, but to overestimating the direct impact of personal values on political behavior in particular.

Keeping this criticism in mind but still drawing on the main theory of Schwartz, I will argue in this paper that citizens are indeed affected by their abstract principles when they vote – but only *indirectly*. I hypothesize that personal values are first translated into political meaning, i.e. transformed into political values, to become subsequently effective on political behavior. I will thoroughly discuss the theoretical foundation of my hypothesis in the next section and will subsequently support it empirically by employing structural equation models on Swiss electoral data.

## **Theory**

Values are defined as general and enduring beliefs or ideals of an individual about what is good or desirable and what is not. Values are therefore essentially a conception of “the desirable” (Kluckhohn 1951: 395). As guiding principles, they are limited in number and serve as a basis for numerous specific evaluations and subsequently constrain behavior. Schwartz (1992: 4) summarizes the properties of values as follows “[They] (1) are concepts or beliefs, (2) pertain to desirable end states or behaviors, (3) transcend specific situations, (4) guide selection or evaluation of behavior and events, and (5) are ordered by relative importance.”

### *Personal Values*

In psychology, the starting point of value research has essentially been the purpose that values actually serve. Like Rokeach (1973), Schwartz deduces values from fundamental human and societal needs. Schwartz (1992) forms a unique typology of *human* values – or *personal* values – which distinguishes three universal requirements of human existence: needs of individuals as biological organisms, requisites of coordinated social interactions, and survival needs of groups. In tying values to human and social needs, Schwartz identified ten value types: power, achievement, hedonism,

stimulation, self-direction, universalism, benevolence, tradition, conformity, and security (Schwartz 1996).

One strength of Schwartz's theory is the integration of these basic value types into a broader value system (Davidov et al. 2008). By understanding value types in terms of basic human and social needs, he is able to specify relationships among these types, as some types are more compatible with each other and some are more opposed to each other. For instance, universalism and benevolence values are compatible because actions that express both values promote the welfare of others. Universalism and power, on the other hand, are opposite value domains, as power involves dominance and control seeking while universalism reflects appreciation and tolerance of all people. The interrelationships among all the value types can be displayed in a two-dimensional value structure with four higher order value types.

One dimension opposes *openness to change* (combining the value types self-direction and stimulation) to *conservation* (combining security, conformity, and tradition). "This dimension reflects a conflict between emphases on own independent thought and action and favoring change versus submissive self-restriction, preservation of traditional practices, and protection" (Schwartz 1996: 5). The second dimension opposes *self-transcendence* (combining benevolence and universalism) to *self-enhancement* (combining power and achievement). "This dimension reflects a conflict between acceptance of others as equals and concern for their welfare versus pursuit of one's own relative success and dominance over others" (ibid, p. 5).

#### *Political Values and Value Orientation*

Similar to the concept of personal values, empirical research on political values indicates that at least two political value dimensions can be isolated from each other (cf. Feldman 2003). The first dimension is the traditional left-right continuum (or liberal-conservative in the US), which reflects the economic conflict within a modern democracy. Contestation on this dimension has predominated in most Western nations in the postwar period (Bartolini and Mair 1990). Specific issues within this struggle are, among others, taxation, wealth redistribution, social security, size of government, and free economic enterprise. More simply put, this is the conflict between socialist and capitalist ideology (Kitschelt 1994).

With the rise of new challenges to modern democracies a new political dimension has emerged (Flanagan 1987). As Kitschelt (1994: 11) argues, "citizens' experiences in their work and social life generate political predispositions that can be mapped onto the two-dimensional space created by the socialist-capitalist and the libertarian-authoritarian dimensions, and party strategies situate themselves in their field of competing programs". This second dimension, which Kitschelt termed "authoritarian-libertarian", reflects political issues such as freedom of thought and conscience,

authority, law and order, civic protests, minority rights, and tradition. Convincing empirical evidence has been presented showing that this dimension, albeit bearing many names, measures a discrete value dimension.<sup>1</sup>

The two-dimensional structure described above is well suited to assess ideologies of Western democracies and the political parties representing them. Classic liberalism, for instance, stresses both (economic) rightist and libertarian values. It encompasses libertarianism insofar as the moral core of liberalism contains an affirmation of basic human rights – freedom, dignity, and life – and the political core includes political rights – particularly the right to vote and to participate. It includes economic rightism insofar as liberalism postulates economic individualism and free enterprise system, i.e. a market economy that is free from state control (Macridis and Hulliung 1997, Bellamy 1993). This, for instance, is the ideological foundation of the Swiss Liberal Party (FDP). Democratic Socialism, on the other hand, can be classified as libertarian and economic leftist. Like liberals, socialists have always claimed civic and political rights for all people. In contrast to liberalism, however, democratic socialism also stresses social rights in terms of wealth redistribution and state intervention in order to remove social inequality (Wright 1993). This can be regarded as the current ideological position of the Swiss Social Democratic Party (SP). Conservatism, lastly, may be classified as economic rightist and authoritarian. While pursuing a similar economic agenda to liberalism, conservatives particularly value principles of hierarchy and status, as well as the legitimacy of authority (Nisbet 1952). This political orientation is broadly represented by the Swiss Conservative Party (SVP).

#### *From Personal Values to Political Values to Political Behavior*

Having laid out the concepts of personal and political values, it is necessary to discuss their relationship. Steenbergen and Leimgruber (2010) assert that personal and political values differ in their levels of abstraction. Because personal values speak to fundamental human and societal needs, they do not only relate to the social sphere, but also, as a consequence of modern times, to the political world as well, yet from a greater “distance”. So, rather than being equal subclasses, personal values can be conceptualized as enduring beliefs which precede political values. As Tetlock et al. (1996) have argued, underlying all political belief systems are core values that specify what the ultimate goals of public policy should be. These basic values are the ultimate justification for political preferences, as citizens must be using something besides political predispositions to build their preferences (Goren 2007).

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<sup>1</sup> See for instance Kerlinger (1984), Evans et al. (1996), Marks et al. (2006); for the Swiss context in particular see Leimgruber et al. (2010) and Kriesi et al. (2006).

This view has elements in common with the image of political personalities that early scholars of political psychology (or pathology) portrayed. The study of “politics within” (Lasswell 1930) maintains that “[a] person’s *political* belief system [...] will be heavily influenced by his identity” (Lane 1972: 175), that private motives and personal needs come to be transformed into political opinions, and that personal values are crucial for the framing of a political belief system. A prominent showcase for illustrating the interdependence of identity, personal needs and political ideology has been the idea of the conservative personality. Several empirical studies have concluded that the “conservatism syndrome” (Wilson 1973: 261) is mainly a response to the feeling of insecurity, inferiority, and a generalized fear of uncertainty (see Jost et al. 2003).<sup>2</sup> It has even been averred that “conservatism is less a political doctrine than a habit of mind” (White 1964: 1).

The theory of value-based political reasoning proposed by Schwartz and his collaborators shares the same theoretical foundation. Caprara et al. (2006: 2), for instance, point out that personal values “are the crucial grounding of ideology.” Schwartz and his colleagues theorize essentially that the two dimensions of personal values underlie the two dimensions of political value orientation (Caprara et al. 2006, Barnea and Schwartz 1998, Schwartz 1996, Schwartz 1994): the superordinate value *openness to change* is assumed to underlie political values that endorse individual autonomy, tolerance, and openness, that is: *libertarianism*. On the other side of the spectrum, *conservation* underlies political values favoring social order, certainty, hierarchy, and national values, i.e. *authoritarianism*. Analogously, *self-transcendence* underpins political values that endorse social welfare and equality, i.e. *(economic) leftism*, whereas the opposite pole *self-enhancement* corresponds to political values giving primacy to differential merit and unequal distribution of income and wealth, i.e. *(economic) rightism*.

Empirical research supports the hypothesis that personal values are related to political values, as predicted by Schwartz and his colleagues. *Authoritarianism*, for instance, has been found to be positively correlated with personal values representing *conservation* (Davidov et al. 2008), but negatively correlated with *openness to change* (Rohan and Zanna 1996). In the same vein, Steenbergen and Leimgruber (2010) showed that *conservation* not only corresponded with diverse political values, but was also associated with left-right self-placements of Swiss citizens. In addition, Davidov et al. (2008) found that *self-transcendence* and *conservation* explain political attitudes towards immigration in Switzerland and other countries.

Moreover, personal values have been found to predict voting behavior. Barnea and Schwartz (1998) and Schwartz (1996) showed that the conflict of *openness to change* with *conservation* discriminated to a large extent between party supporters in Israel. Caparara et al. (2006), studying Italian general elections in 2001, found that “universalism” predicted a preference for the center-left

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<sup>2</sup> See Altemeyer (1981) for a very similar conclusion concerning the authoritarian personality.

coalition, whereas the superordinate value *conservation* predicted a preference for the center-right. Devos et al. (2002) found that Swiss right-wing supporters attributed more importance to “power,” “security,” and “conformity,” whereas left-wing supporters cherished “universalism” more.

Although these studies clearly demonstrate the significant influence of personal values on voting behavior, they inherit a major shortcoming regarding the operationalization of the assumed relationship. In theory, Schwartz and his colleagues argue that personal values correspond primarily to political value orientations (Schwartz 1994, Schwartz 1996, Barnea and Schwartz 1998). They even acknowledge that personal values may be mediated by political values, and thus only indirectly influence vote choice. But at the same time Schwartz et al. claim that this mediating effect will only play a minor role: “[Political] values may mediate the effects of basic values on political choice but basic values are more fundamental” (Caprara et al. 2006: 5). Thus, in practice, virtually all studies test only the direct effect of personal values on voting behavior (see Schwartz 1996, Barnea and Schwartz 1998, Verplanken and Holland 2002, Devos 2002, Caprara et al. 2006). In doing so, they entirely neglect the role of political values in the process of voting. This is a strong assumption, as research has consistently demonstrated the importance of political values in the process of voting.<sup>3</sup> By neglecting them entirely, one not only runs the risk of missing a crucial link in the causal chain but also of overestimating the impact of personal values in general.

#### *Hypothesis: The Indirect Effect of Personal Values on Voting Behavior*

In light of this, it is necessary to bring political values back into the causal chain, as preliminary findings indicate a mediating function of political attitudes or values. For instance, one study shows that personality traits, besides personal values defined as a major constituent of an individual’s identity, have an impact on vote choice that is mediated by political predispositions (Schoen and Schumann 2007). In the same vein, Braithwaite (1997) presumes that basic values influence voting behavior only indirectly through political attitudes. These findings should not come as a surprise if one takes the theoretical conception of personal values seriously. If basic values are considered as general principles and used as a basis for numerous specific evaluations across situations (Feldman 2003), then there must be an entity – such as political values – that makes these abstract values applicable to a specific situation – such as voting in an election.

This argument can be made from two perspectives. From a value-based perspective one can theorize that abstract beliefs like personal values need to be translated into political meaning in order to have any behavioral consequences. As van Deth (1995: 6) points out, basic “[...] values of individuals can be transformed into political orientations which have some impact on their behavioral intentions.” Thus an individual’s endorsement of, say, “understanding, appreciation, and

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<sup>3</sup> See, for instance, Ansolabehere et al. (2008), Jacoby (2006), Goren (2005), Kumlin and Knutsen (2005).

tolerance of others" (i.e. "universalism") needs to be translated, even if subconsciously, into actual political stances. Thus, only when personal universalism is transformed into political universalism, which is commonly endorsed by Social Democratic parties, can it have a behavioral impact such as inducing a vote for the Social Democrats. From an action-based perspective, on the other hand, it can be argued that "values need to be activated to affect [...] behavior" (Verplanken and Holland, 2002: 434). Behavioral intentions need to be connected with basic values *through* attitudes which serve to evaluate a specific object. Considered this way, political attitudes (or political values, more generally) constitute a value-expressive function (Maio and Olson 1995). Only when vote intentions connote political values can very basic motives be expressed through them. Both perspectives equally imply that political values function as a mediator between personal values and political behavior.

Considering this, I hypothesize that personal values as conceptualized by Schwartz (1992) do not affect voting behavior in a direct fashion. Rather they are first translated (or transformed) into political values, which in turn influence vote choice. The impact of personal values on voting behavior is thus assumed to be indirect, as they are mediated by political orientation. By assuming a deductive concept of political reasoning (Peffley and Hurwitz 1985) from abstract beliefs to more specific political preferences to actual voting, I model a more complex causal chain. More precisely, it is hypothesized, following Schwartz's theory, that the higher value type *conservation* is negatively correlated with *libertarianism* but uncorrelated with *leftism*. *Libertarianism*, in turn, is expected to discriminate between voters of the conservative Swiss People's Party as well as the supporters of the left-libertarian Social Democratic Party from voters of the centrist Christian Democratic Party. Accordingly, *self-transcendence* is expected to be positively correlated with *leftism* but uncorrelated with *libertarianism*. *Leftism*, in turn, is expected to discriminate between voters of the left, i.e. the Social Democratic Party, and supporters of the economic right, i.e. of the Liberal Party and the People's Party, from the party supporters of the centrist Christian Democratic Party. The higher-order personal values *self-transcendence* and *conservation* are assumed to have no direct effect on party choice.

## **Method**

### *Data and Measurement*

The guiding research question of this study will be analyzed with data from the Swiss Electoral Study (SELECTS) of 2007. The SELECTS 2007 survey contains information not only about vote choice and the demographics of Swiss voters, but also items measuring personal and political values. In order to avoid cultural variation in regard to political values, the analysis will be restricted to voters in the Swiss German cantons.



Table 1: Variable Description

PERSONAL VALUES	
<i>Conservation</i>	
<b>SEC</b> urity	It is important to him to live in secure surroundings. He avoids anything that might endanger his safety. 1 = "very much like me", 2 = "like me", 3 = "somewhat like me", 4 = "a little like me", 5 = "not like me at all".
<b>CO</b> nformity1	He believes that people should do what they're told. He thinks people should follow rules at all times, even when no one is watching.
<b>CO</b> nformity2	It is important to him to always behave properly. He wants to avoid doing anything people would say is wrong.
<b>TR</b> adition	Tradition is important to him. He tries to follow the customs handed down by his religion or his family.
<i>Self-Transcendence</i>	
<b>UN</b> iversalism1	He thinks it is important that every person in the world should be treated equally. He believes everyone should have equal opportunities in life.
<b>UN</b> iversalism2	It is important to him to listen to people who are different from him. Even when he disagrees with them, he still wants to understand them.
<b>UN</b> iversalism3	He strongly believes that people should care for nature. Looking after the environment is important to him.
<b>BE</b> nevolence	It's very important to him to help the people around him. He wants to care for their well-being.
POLITICAL VALUES	
<i>Libertarianism</i>	
<b>ARMY</b>	Are you against or in favor of a strong army? 1 = "strong army", 2 "Rather strong" 3 "neither nor" 4 "rather no army" 5 "No army".
Equal <b>CHAN</b> ces	Do you think foreigners should have equal opportunities or should Swiss citizens have better chances? 1= "equal opportunities", (...) 5 = "better opportunities for Swiss"
Swiss <b>TRAD</b> ition	Do you think that Swiss traditions should be defended or rather questioned? 1 = "defend Swiss traditions", (...) 5 = "question traditions".
<b>LAW</b> and order1	Do you think "law and order" should be stressed in Switzerland? 1 = "not stress law and order", (...) 5 = "stress".
Immigrant <b>CUST</b> oms	Immigrants should be required to adjust to the customs of Switzerland. 1 = "strongly agree", (...) 5 = "strongly disagree".
<b>LAW</b> and order2	People who break the law should be given tougher sentences. 1 = "strongly agree", (...) 5 = "strongly disagree".
<i>Leftism</i>	
Social <b>EXP</b> enditure	Are you in favor of expansion of social expenditure or cutting of social expenditure? 1 = "Cut social expenditure", (...) 5 = "increase".
<b>TAX</b> ing high income	Do you think taxes on high income should be increased? 1 = "for higher taxes", (...) 5 = "lower taxes".
Social <b>SEC</b> urity	Providing a stable network of social security should be the primary goal of government. 1 = "strongly agree", (...) 5 = "strongly disagree".
<b>RED</b> istribution	Income and wealth should be distributed towards ordinary people. 1 = "strongly agree", (...) 5 = "strongly disagree".

Table 1 (cont'd): Variable Description

DEPENDENT VARIABLE (DUMMY VOTE CHOICE)	
<b>FDP</b>	1 = Voted for Swiss Liberal Party FDP
<b>SVP</b>	1 = Voted for Swiss People's Party SVP
<b>SP</b>	1 = Voted for Social Democratic Party
<b>CVP</b>	1 = Voted for Christian Democratic Party CVP. (Reference category)
SOCIO-ECONOMIC COVARIATES	
Education	1 = High education (High School or higher), 0 = Low education
Gender	1 = Female, 0 = Male
Income	Household income; 11 point-scale (1 = less than 2'000 CHF, 2 = 2'001 - 3'000 CHF, ..., 10 = 10'001- 11'000 CHF, 11 = more than 11'000)
Age	Years (18-95)
Religion	1 = Catholic, 0 = Non-Catholic

*Note.* In the analysis, all human value items have been inverted. The same applies for the political value items "trad", "law1", and "taxinc".

Concerning our dependent variable, vote choice, a four category variable is defined (see Table 1). It includes the Social Democratic Party (SP), the Christian Democratic Party (CVP), the Liberal Democratic Party (FDP), and the Swiss People's Party (SVP). These four parties represent the current government (*Bundesrat*), and together they secured roughly 80% of the vote share in the 2007 elections. Concerning the ideological positions of the party voters (represented by the *libertarian-authoritarian* and *left-right* dimensions), the following is known (see Leimgruber et al. 2010): the median voter of the Social Democratic Party is ideologically left-libertarian, while the median voter of the People's Party, his ideological counterpart, is right-authoritarian. The average voter of the Liberal Party most distinctively stresses economic right values but is moderate in libertarian values. The median supporter of the Christian Democratic Party, lastly, is located in the center of the ideological space. Given the centrist ideological position of CVP supporters, this party is defined as the reference category of the dependent variable in subsequent empirical analyses (cf. Leemann 2008).

In order to measure the two political value orientations described above, ten items covering attitudes (or values) towards diverse political issues are selected based on preliminary exploratory factor analysis<sup>4</sup>: items addressing "Swiss tradition," "immigrant customs," "law and order," "equal chances for foreigners," and "support for the army" measure *libertarianism* (refer to Table 1 for the question wording and item format). Likewise, questions addressing "social expenditure," "security," "redistribution," and "taxation" measure *leftism*. Note that, for efficiency reasons, the two constructs are described by their poles *leftism* and *libertarianism*, although they in fact reflect the whole spectrum of each dimension (*left-right* and *libertarianism-authoritarianism*).

<sup>4</sup> Exploratory factor analysis based on these ten items clearly suggests a two-factor model. The eigenvalues for the first five factors are: 2.802; 1.972; 0.832; 0.771; 0.742. Hence, Kaiser's (1960) rule of retaining only factors having eigenvalues greater than one as well as Cattell's (1966) scree test suggest a two-factor solution.

Personal values are measured by the Portrait Values Questionnaire (PVQ) developed by Schwartz et al. (2001), which has been validated in various cultures (see Table 1 for the question wording and item format). Unfortunately, only a subset of Schwartz' PVQ has been included in the SELECTS survey. These 12 items do not allow us to fully reproduce the two dimensions *self-transcendence vs. self-enhancement* and *openness to change vs. conservation*. Rather, the higher-order values *self-transcendence* (measured directly by three indicators of the value type "universalism" and by one of "benevolence") and *conservation* (measured by two indicators of "conformity" and one each of "security" and "tradition") are generated with the available data (see Davidov et al. 2008 for a similar procedure).<sup>5</sup> Although this represents a limitation of the present analysis, it does not undermine the theoretical assumptions proposed by Schwartz et al., which are adapted here: *self-transcendence* is predicted to correspond with *leftism*, and *conservation* with *libertarianism* (Barnea and Schwartz 1998: 29). It is also not assumed that the reduction to two poles interferes with the general hypothesis of indirect effects. If these two higher order values can be shown to affect vote choice only indirectly, then it is likely that this also holds for the full dimensions.

As the measurement model shows (see Figure 1), the items selected measure both the political and the personal value constructs very well: All factor loadings are greater than .5 (note that the indicators are classified as ordered categorical variables in order not to underestimate the standard errors [DiStefano 2002], thus the factor loadings are standardized probit regression coefficients); the political value dimensions are uncorrelated; only the moderately though significant correlation (.336) between the personal factors is not assumed from the theoretical model.<sup>6</sup> All in all, the measurement model of personal and political values fits well to the data and produces an acceptable model fit.<sup>7</sup>

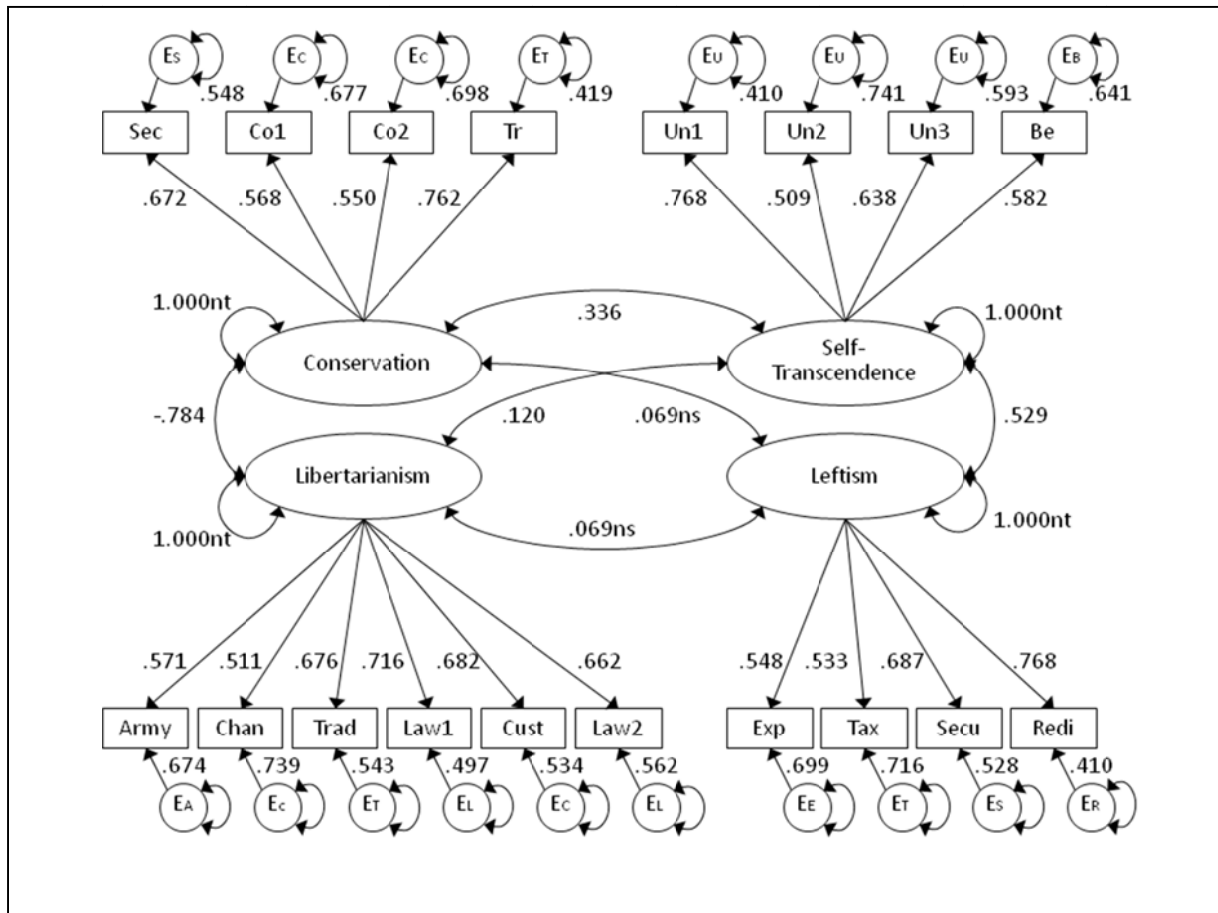
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<sup>5</sup> The higher order value *openness to change* is only covered with one item of the "stimulation" domain ("He looks for adventures and likes to take risks. He wants to have an exciting life."). The superordinate value *self-enhancement* is covered with one item of each the "achievement" and the "power" domain ("Being very successful is important to him. He hopes people will recognize his achievements." And "It is important to him to be rich. He wants to have a lot of money and expensive things", respectively). Preliminary inclusion of these three items neither lead to a satisfactory two-dimensional factor solution suggested by Schwartz' theory, nor did the latter two items satisfactorily reproduce *self-enhancement*. Hence, these three items are excluded from the analysis together with one item of the domain "security", as it contains an undesired political reference ("It is important to him that the government ensures him safety against all threats. He wants the state to be strong so it can defend citizens.").

<sup>6</sup> Schwartz (1994) argues that the response tendency to rate personal values in general as more or less important might generate ("artificially") positive correlations between factors.

<sup>7</sup> The statistical software package used in this analysis is Mplus 5.1. The structural equation models will include categorical indicators (the personal and political value items) as well as a nominal outcome variable (vote choice). The only estimation procedure than can be used in Mplus 5.1 for such a model is MLR (maximum likelihood parameter estimates with standard errors and a chi-square test statistic that are robust to non-normality and non-independence of observations; see Muthén and Muthén [2007]). For consistency reasons, MLR has been applied to the measurement model as well, even though Mplus 5.1 does not report the common

Figure 1: The Measurement Model of Personal and Political Values



Note. Estimator is MLR. Factor loadings are standardized probit regression coefficients; measurement errors are proportions of unexplained variance. All estimates are significant at the .05 except for those designated “ns” or “nt” (not tested).

N = 626; AIC = 30191; BIC = 30652 (See footnote 7 for more details on model fit.)

As Feldman (2003: 488) has pointed out, one cannot correlate personal values with political values without controlling for variables that could predict one or the other. Thus, in the structural equation models applied, socio-economic covariates will be included, since they are known to correlate with personal values, political values, and vote choice alike. In regard to personal values, it has been found that gender, age, and religious affiliation discriminate on some values (cf. Lindeman and Verkasalo 2005, Lyons et al. 2005, Devos et al. 2002). In addition to education and income, the same SES variables have been found to correlate with political values and value orientations (cf. Andersen and Heath 2003, Brunner and Sciarini 2002, Howell and Day 2000, Alwin and Krosnick 1991). Finally, with the exception of gender, all of these socio-economic indicators are correlated with party choice in the Swiss elections of 2007 (Lutz 2008). Therefore, the following SES covariates

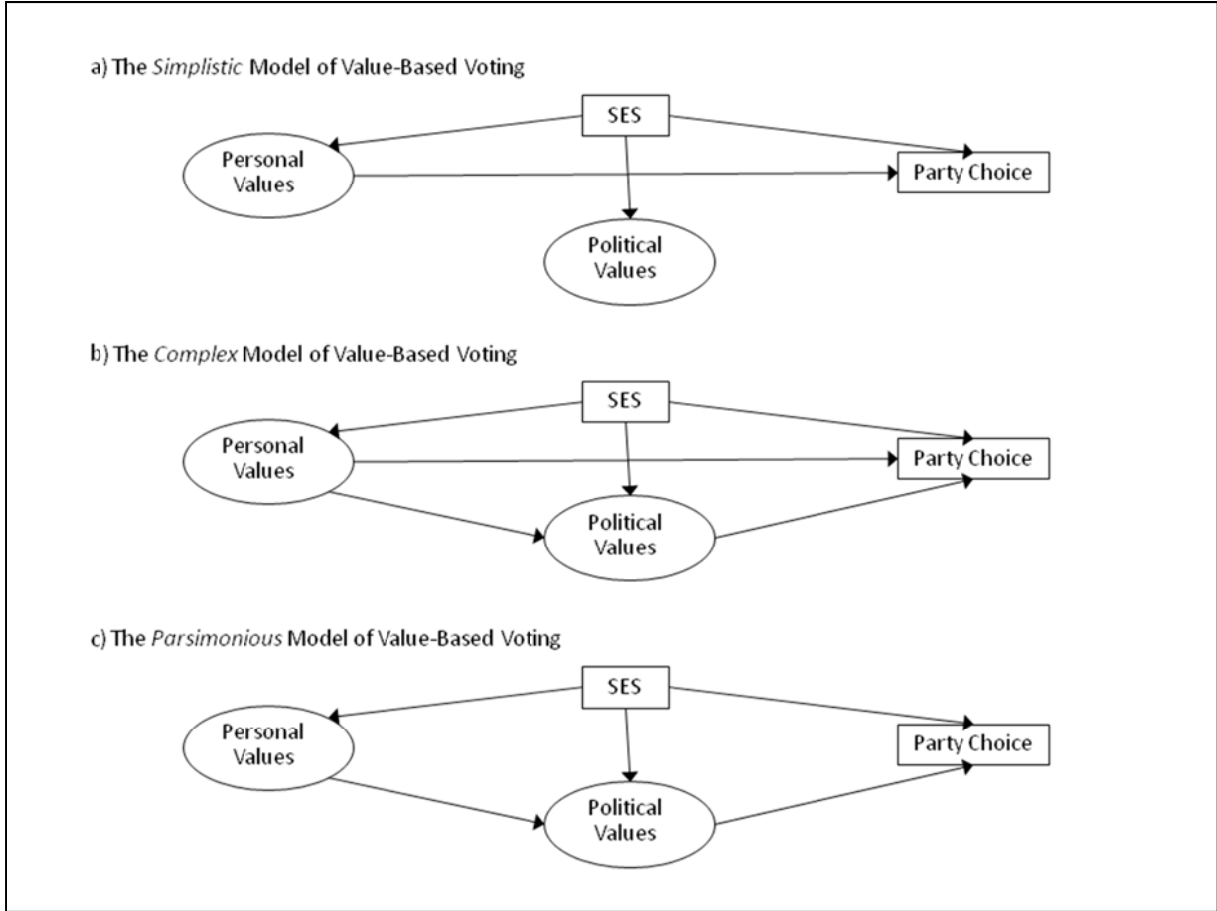
model fit statistics. Yet, classifying the indicators as continuous and estimating the measurement model with maximum likelihood (ML), the test statistics indicate, according to Hu and Bentler (1998), an acceptable model fit (CFI = .898; RMSEA = .050; SRMR = .060).

will be included as control variables in the structural equation models: gender, age, education, income (household), and religious (catholic vs. non-catholic) denomination (see Table 1).

*Models*

To model causal paths and to test complex relationships, in our case direct and indirect effects on vote choice, structural equation modeling (SEM) is the most appropriate statistical tool. The goal is to demonstrate that personal values influence voting behavior only indirectly, through political values. For this endeavor it is advisable to test alternative models and compare them with each other in order to demonstrate the supremacy of one theoretical model (MacCallum and Austin 2000, Homer and Kahle 1988). The three alternative models tested in this analysis are illustrated in Figure 2 (the corresponding path estimates are displayed in Table 2). Note that in these figures, the circle “personal values” represents both higher values *self-transcendence* and *conservation*, and likewise the circle “political values” stands for both *libertarianism* and *leftism*.

Figure 2: Three Theoretical Models of Value-Based Voting



In the first model, the *simplistic* model, the research designs applied by Schwartz and his colleagues are translated into the SEM framework. It is assumed that the effect of political values on

vote choice can be neglected and that the latter is sufficiently explained by personal values and socio-economic factors (Caparara et al. 2006). Hence, as the paths in model (a) illustrate, vote choice is determined exclusively by personal values and socio-economic factors.<sup>8</sup> As argued in the theory section, ignoring political values in the process of voting might not be advisable. Therefore, in the second (*complex*) model political values are introduced, generating additional paths: vote choice is now also dependent on political values, and the latter on personal values. This means that, in addition to the direct effects of personal values on vote choice, the indirect effects of personal values on vote choice through political values are also estimated. In the final model, the *parsimonious* model, the direct effects of personal values on vote choice are set to zero, imposing an assumption that the impact of personal values on vote choice is fully mediated by political values. The supremacy of the *parsimonious* model is successfully demonstrated if (a) in the *simplistic* model the direct effects of personal values on vote choice are significant but (b) become insignificant in the *complex* model (when indirect effects are controlled for), and if (c) the model fit of the *parsimonious* model is better than or equals the model fit of the *complex* model (see Baron and Kenney 1986).

## Results

Let us turn to the results yielded by the structural equation models. The *simplistic* model, i.e. the model of Schwartz et al. put into structural equation form, corroborates their original findings (Schwartz 1996, Barnea and Schwartz 1998, Caprara et al. 2006). In this model the paths leading from personal to political values and from political values to vote choice are fixed to zero. As reported in Table 2, Column 1, citizens valuing *self-transcendence* are less likely to vote for rightist parties (the standardized probit coefficient for FDP is  $-.565$ , for SVP =  $-.694$ ) but more likely to vote for the leftist Social Democratic Party ( $.482$ ). Similarly, *conservation* is positively correlated with voting for the conservative SVP ( $.825$ ) but negatively with voting for the left-libertarian SP ( $-.689$ ). Since the variation in personal values accounts for variation in vote choice, personal values fulfill the necessary condition of being possibly mediated by political values.

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<sup>8</sup> Note that in each model employed, socio-economic factors are modeled as independent determinants of personal values, political values, and vote choice. Hence, it is first assumed that the causal direction runs from socio-economic status to values. This can be questioned, as both directions of causality between values and some socio-economic categories are possible. For instance, some personal values might be influential on religiosity (Roccas 2005). Secondly, SES covariates are modeled neither as moderating nor as mediating factors. This is again an assumption that can be questioned. For instance, it could be argued that political values have a stronger impact on vote choice for well educated voters than for less educated voters (cf. Zaller 1992), i.e. education is a moderator between political values and voting. However, this moderating effect has not been found in preliminary analyses here.

Table 2: The Simplistic, Complex, and Parsimonious Model of Value-Based Voting

	Simplistic Model		Complex Model		Parsimonious Model	
Direct effects	Est.	SE	Est.	SE	Est.	SE
<u>FDP ON</u>						
Conservation	.379	.201	.709	.590	Fixed to 0	
Self-Transcendence	-.565 **	.163	-.653	.379	Fixed to 0	
Libertarianism	Fixed to 0		.457	.637	-.226	.200
Leftism	Fixed to 0		-.159	.260	-.512 **	.140
Education	.260 *	.120	.178	.127	.153	.122
Age	.166	.138	.201	.147	.117	.137
Gender	.173	.121	.178	.121	.089	.113
Income (Household)	.317 *	.128	.247	.140	.176	.139
Religious Denomination	-.798 **	.094	-.801 **	.092	-.764 **	.098
<u>SVP ON</u>						
Conservation	.825 **	.090	-.033	.384	Fixed to 0	
Self-Transcendence	-.694 **	.088	-.185	.256	Fixed to 0	
Libertarianism	Fixed to 0		-.917 **	.343	-.887 **	.058
Leftism	Fixed to 0		-.090	.127	-.239 **	.084
Education	-.103	.088	-.028	.073	-.065	.069
Age	-.144	.083	-.226 **	.068	-.251 **	.065
Gender	.042	.083	-.006	.074	-.034	.063
Income (Household)	.072	.087	.070	.081	.045	.078
Religious Denomination	-.584 **	.081	-.400 **	.089	-.423 **	.069
<u>SP ON</u>						
Conservation	-.689 **	.147	.598	.405	Fixed to 0	
Self-Transcendence	.482 **	.150	-.494	.257	Fixed to 0	
Libertarianism	Fixed to 0		.994 **	.365	.602 **	.099
Leftism	Fixed to 0		.770 **	.127	.608 **	.094
Education	.029	.125	.043	.092	.031	.091
Age	.130	.119	.215 *	.093	.172	.092
Gender	-.046	.119	.060	.085	-.016	.078
Income (Household)	.055	.122	.225 *	.092	.192 *	.094
Religious Denomination	-.659 **	.119	-.439 **	.092	-.444 **	.088
<u>Libertarianism ON</u>						
Conservation	Fixed to 0		-.872 **	.054	-.858 **	.055
Self-Transcendence	Fixed to 0		.433 **	.058	.444 **	.058
Education	.354 **	.043	.120 **	.042	.121 **	.042
Age	-.243 **	.047	-.097 *	.045	-.099 *	.045
Gender	.165 **	.043	-.032	.040	-.033	.040
Income (Household)	.072	.047	.009	.042	.013	.041
Religious Denomination	-.039	.042	.074	.038	.071	.038
<u>Leftism ON</u>						
Conservation	Fixed to 0		-.292 **	.070	-.287 **	.070
Self-Transcendence	Fixed to 0		.595 **	.061	.596 **	.060
Education	-.060	.048	-.188 **	.049	-.187 **	.049
Age	-.006	.057	.000	.048	-.002	.048
Gender	.097 *	.046	-.071	.048	-.071	.048
Income (Household)	-.327 **	.051	-.294 **	.052	-.293 **	.052
Religious Denomination	.004	.044	.011	.045	.010	.044

Table 2 (cont'd): The Simplistic, Complex, and Parsimonious Models of Value-Based Voting

	Simplistic Model		Complex Model		Parsimonious Model	
Direct effects (cont'd)	Est.	SE	Est.	SE	Est.	SE
<u>Conservation ON</u>						
Education	-.211 **	.046	-.213 **	.045	-.213 **	.045
Age	.242 **	.047	.238 **	.048	.239 **	.048
Gender	-.125 **	.047	-.110 *	.047	-.110 *	.047
Income (Household)	-.122 *	.053	-.129 *	.053	-.128 *	.053
Religious Denomination	.157 **	.044	.159 **	.043	.159 **	.043
<u>Self-Transcendence ON</u>						
Education	.116 *	.048	.115 *	.048	.114 *	.048
Age	.150 **	.050	.144 **	.050	.145 **	.050
Gender	.241 **	.046	.236 **	.047	.236 **	.047
Income (Household)	-.102	.053	-.102 *	.052	-.103 *	.052
Religious Denomination	.066	.047	.065	.047	.066	.047
Indirect effects	Est.	SE	Est.	SE	Est.	SE
<u>FDP ON</u>						
Conserv. VIA Libertarianism	---	---	(-.399)	.556	(.194)	.172
Conserv. VIA Leftism	---	---	(.046)	.077	(.147) *	.054
Self-Tran. VIA Libertarianism	---	---	(.198)	.277	(-.100)	.090
Self-Tran. VIA Leftism	---	---	(-.095)	.155	(-.305) **	.089
<u>SVP ON</u>						
Conserv. VIA Libertarianism	---	---	(.800) *	.303	(.761) **	.070
Conserv. VIA Leftism	---	---	(.026)	.038	(.069) *	.029
Self-Tran. VIA Libertarianism	---	---	(-.397) *	.158	(-.394) **	.058
Self-Tran. VIA Leftism	---	---	(-.054)	.076	(-.142) *	.052
<u>SP ON</u>						
Conserv. VIA Libertarianism	---	---	(-.954) *	.324	(-.517) **	.091
Conserv. VIA Leftism	---	---	(-.225) *	.065	(-.174) **	.050
Self-Tran. VIA Libertarianism	---	---	(.474) *	.170	(.267) **	.056
Self-Tran. VIA Leftism	---	---	(.458) **	.089	(.362) **	.067
Factor covariances	Est.	SE	Est.	SE	Est.	SE
Libertarianism WITH Leftism	.242 **	.066	-.150	.140	-.149	.129
Conserv. WITH Self-Tran.	.376 **	.064	.357 **	.065	.359 **	.065
N	626		626		626	
Degrees of freedom	209		199		205	
Loglikelihood	-15711.961		-15467.347		-15472.109	
AIC	31711.923		31242.694		31240.217	
<i>Note.</i> Estimator is MLR. Directs effects on vote choice (FDP, SVP, SP) are standardized probit regression coefficients with party CVP as the reference category, all other path estimates are standardized linear regression coefficients. Thus the estimates of the indirect effects are in brackets, as they are not directly interpretable. The significance of the indirect effects is estimated with Sobel's (1982) test based on the SE of the unstandardized coefficients (not shown).						
** $p < 0.01$ ; * $p < 0.05$						



In the *complex* model, the paths from personal values to political values and from the latter to vote choice are now freed (refer to Table 2, Column 2). As expected, all of the direct effects of personal values on party choice become insignificant. In other words, they are completely mediated by political values. Still, the main finding of the Schwartz theory is confirmed, as *conservation* substantially correlates with *libertarianism* (-.872) and likewise *self-transcendence* with *leftism* (.595). Yet the variation of vote choice is now fully explained by the direct effects of *libertarianism* and *leftism* (and those of economic status). *Libertarianism* discriminates social democratic voters (SP) and conservative voters (SVP) from centrist voters (CVP), the reference category; *Leftism* discriminates SP voters from the reference category. Also note that the *complex* model is superior to the *simplistic* model, as both log-likelihood and AIC indicate a better model fit.

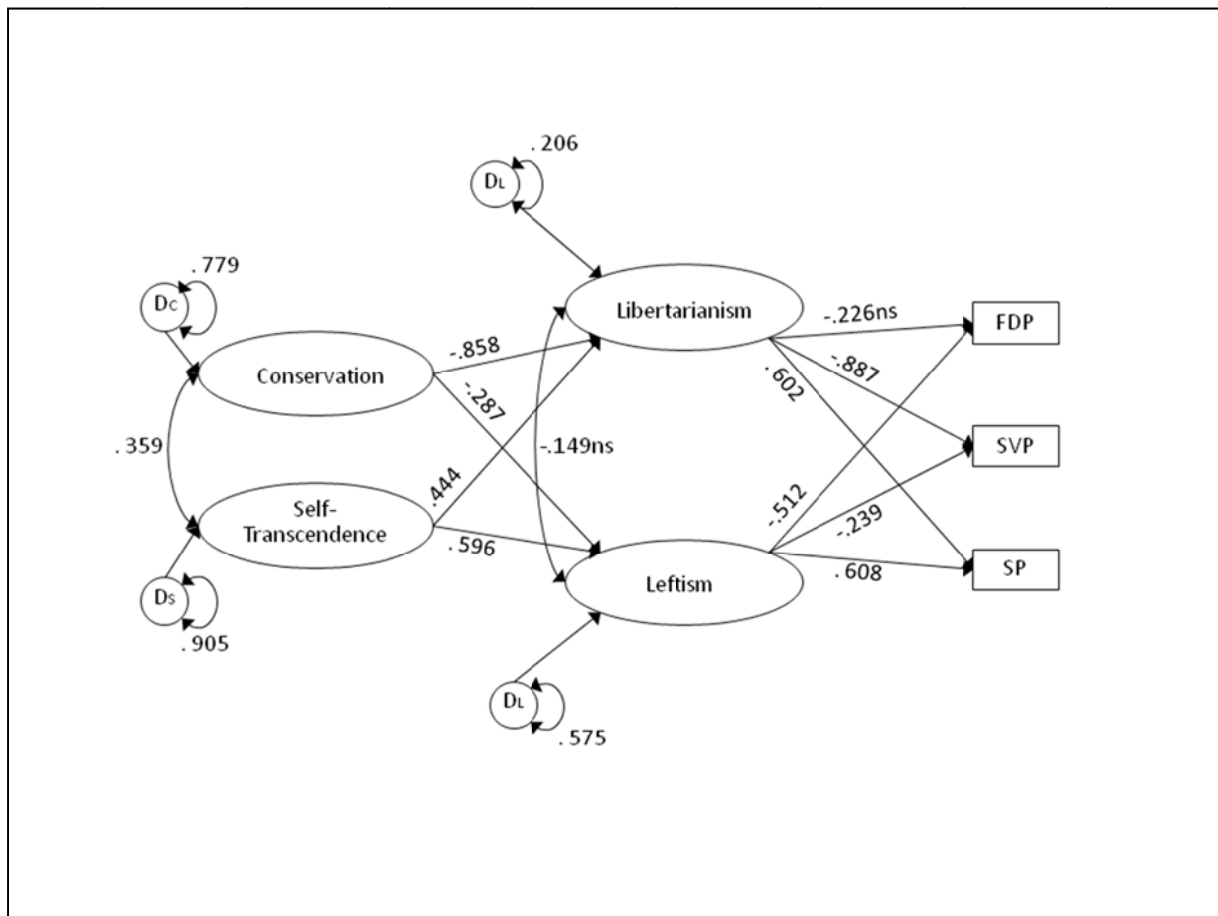
To make the case that vote choice is only indirectly affected by personal values even stronger, we now fix the direct effects of personal values on vote choice to zero in the *parsimonious* model. As can be seen in Table 2, bottom of Column 3, fixing these parameters decreases the log-likelihood only marginally (from -.15467 to -.15472) and, taking the increase in degrees of freedom into account, the difference of the model fit is equal: the chi-square difference test on the log-likelihood yields a value of 9.273, which is insignificant ( $p=.158$ ) given the increase of 6 degrees of freedom.<sup>9</sup> That the *parsimonious* model might fit the data even better than the complex model is indicated by the lower (and thus favorable) Akaike information criteria (AIC) value, which penalizes overfitting.

Having demonstrated the supremacy of the *parsimonious* model, we can now discuss its results, which are also illustrated in Figure 3, in more detail. First, political values determine vote choice, as predicted. The more (economic) leftist a voter, the more likely it is he votes for the Social Democratic Party (the standardized probit coefficient equals .608) and the less likely it is he votes for both the Liberal Party FDP and the Swiss People's Party SVP (-.512 and -.239, respectively). Similarly, stressing *libertarianism* increases the likelihood of voting for the Social Democratic Party (SP) and decreases the likelihood of voting for the SVP, but does not discriminate between FDP and CVP (the reference category) voters. The relationships between political value orientations and vote preferences found here parallel previous findings (Leimgruber et al. 2010).

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<sup>9</sup> The log-likelihood difference test applied here takes a correction factor due to MLR estimation into account. For more details see Muthén and Muthén on <http://www.statmodel.com/chidiff.shtml>.

Figure 3: The Parsimonious Model of Value-Based Voting



Note. All estimates are statistically significant at the .05 level except for those designated “ns”. The estimated effects of socio-economic covariates on personal values, political values, and vote choice are not shown. Refer to Table 2, Column 3, for these estimates and more details on that model. (N = 626)

Second, the relationships among values detected here broadly support the theory of Schwartz et al. (Schwartz 1996, Barnea and Schwartz 1998, Caprara et al. 2006), though they are not as clear-cut as predicted. While the effect of *conservation* on political value orientations is fairly consistent with the theory ( $-.872$  on *libertarianism* but only  $-.292$  on *leftism*), the effect of *self-transcendence* on both value orientations is substantial, with the predicted effect on *leftism* ( $.596$ ) being only marginally larger than the unpredicted effect on *libertarianism* ( $.444$ ).

Third and most consequentially, this finding also affects the indirect effects of basic values on vote choice. It is not the case, as the theory implies, that *conservation* influences voting behavior only through *libertarianism*, nor does *self-transcendence* influence vote choice exclusively through *leftism*. In fact, whether personal values do affect voting behavior at all is predominantly determined by how strongly political value orientation discriminates between party voters (again in reference to the centrist CVP voter) – the two indirect effects that are not significant ( $p < 0.5$ ) are those via

*libertarianism* on voting for FDP, which themselves are not significant.<sup>10</sup> But for all that, it is fairly impressive to see how big the impact of personal value orientation is on vote choice overall: ten out of twelve indirect paths are statistically significant ( $p < .05$ ). It is important to note, however, that the estimates of the indirect effects are not directly interpretable. Because the direct effects of personal on political values are standardized linear regression coefficients, while the direct effects of political values on vote choice are standardized probit coefficients, it is not appropriate to multiply the former with the latter as it is commonly done. (The multiplied estimates depicted in Table 2 are therefore put in brackets).<sup>11</sup> Although they are not clearly interpretable, we can still acknowledge that the largest indirect effects are those in line with the theory. So *conservation* does strongly predict vote choice through the assumed mediator *libertarianism*, as its indirect effect on voting for SVP is .761 and for SP -.517.

## Conclusion

In contrast to the value based voting model proposed by Schwartz and his collaborators (Schwartz 1996, Barnea and Schwartz 1998, Caprara et al. 2006), this article posits that personal values affect voting behavior only indirectly through political value orientations. Empirical analysis supports this modified hypothesis. The *parsimonious* model, which fits best to the Swiss electoral data, shows that *self-transcendence* and *conservation* are completely mediated by *leftism* and *libertarianism* and thus exert only an indirect influence on vote choice. This means, for instance, that a citizen attributing high importance to *self-transcendence* is likely to vote for the Social Democratic Party, because he, given his personal values, also endorses political leftist values. Similarly, a voter prioritizing *conservation* tends to prefer the Swiss People's Party because his personal values are expressed through his authoritarian values.

However, the results of the applied structural equation models also support the fundamentals of Schwartz' and his colleagues' theory. First, personal values are strongly associated with political values. *Conservation*, for instance, has an enormous effect on *libertarianism*, and the high correlation between *self-transcendence* and *leftism* is similarly considerable. It must be noted, however, that also the not assumed relationship between *self-transcendence* and *libertarianism* is substantial. This, of course, weakens Schwartz', and equally my, hypotheses to some extent, as the pattern is not as clear-cut as theorized. Yet it does not undermine the general argument entirely, nor is it totally

<sup>10</sup> The significance of the indirect effects is estimated with Sobel's (1982) test based on the *SE* of the unstandardized coefficients:  $z\text{-value} = a*b/\text{SQRT}(b^2*s_a^2 + a^2*s_b^2 - s_a^2*s_b^2)$ ; where  $a$  = unstandardized coefficient between independent variable and mediator,  $s_a$  standard error of  $a$ ;  $b$  = unstandardized coefficient between the mediator and the dependent variable,  $s_b$  = standard error of  $b$ .

<sup>11</sup> For the same reason, and also because it has not been a primary goal of this study, total effects of personal values on vote choice are not estimated.

unreasonable. As Barnea and Schwartz (1998) argue, giving high importance to “universalism” (which essentially means understanding, tolerance, and caring for others) does not necessarily have to affect political stances exclusively on the (economic) left-right continuum, rather it may also affect where one stands culturally (or morally). The second finding supporting Schwartz’ reasoning is the enormous total – even if mediated – impact of personal values on voting behavior, as ten out of twelve indirect paths on vote choice have been found to be significant.

This result brings us back to the main argument of this paper: that of the indirect effects. To be fair, the criticism raised against Schwartz et al. rather concerns the research designs they employed than the theoretical argument they made. The heart of their theory is the connection between personal and political value orientation (Barnea and Schwartz 1998), even if the empirical focus lies on the direct effects of personal values on voting behavior. It seems that the authors are rather unaware of this apparent inconsistency between theory and empirics. For instance, they inappropriately concluded that “[...] this analysis supports the association of values with voting *through* their ties [...] of political ideology” in a study where only direct effects had been tested (Barnea and Schwartz 1998: 30; my emphasis). This conclusion, as it has been shown here, is not unfounded, but it was premature based on their empirics. Considered that way, the study undertaken here only confirms, now in a methodologically adequate way, what has been taken as theoretically correct ever since.

Nonetheless, if it is empirically demonstrated that the relationship is in fact more complex, this must consequently lead to a broader conclusion and a refinement of the theory of value-based voting. My point is that personal values need to be translated (or transformed) first into political meaning in order to have an effect on political behavior (van Deth 1995). Or, from another perspective, personal values need to get activated by political values in a specific situation such as voting (cf. Maio and Olson 1995). Thus, a citizen must be aware of what his private needs mean in the political realm, which political program conforms to his personal guidelines, or which party serves his private motives. It is as if social psychologists have gone a little too far in demonstrating the importance of basic values in politics and have thereby lost sight of what politics is really about. Even more, they have lost sight of what elections are about. In elections, parties and candidates compete against each other, they advertise and sell programs (Downs 1957), and they make their case through campaigning and communication. And the language of campaigns and communication is first and foremost political. These days, politicians do not promote an abstract, desirable end-state of society. Rather, they much more mundanely “defend their old policies, sell new policies, and justify their rule” (Popkins 1991: 8).

Thus this analysis specifies more clearly how and when personal values are related to political reasoning and behavior (Feldman 2003, Verplanken and Holland, 2002). It also reconfirms the large

impact of political values on vote choice, particularly when controlling for measurement error (Ansolabehere et al. 2008). Apparently, the electorate of the main Swiss parties – save the Christian Democrats and their still predominant Catholic electorate – orient themselves nowadays by shared values rather than by socio-economic status (cf. Kitschelt 1994). These insights fit nicely with the idea of the “political man” portrayed by early political psychologists, as “[...] personal values are important for the framing of a political belief system” (Lane 1972: 181).

It is up to future research to determine whether the hypothesis of indirect effects also holds in different electoral settings and, in particular, when data allow for generating all of the entire dimensions of Schwartz’ (1992) personal values. It could also prove promising to model issue voting in a similar framework as the one that is employed here, with attitudes towards a specific political issue regressed on personal values. For instance, it may well be that attitudes towards salient issues (Niemi and Bartels 1985), and thus decisive issues, in an election may be backed up by specific personal values. Or similarly, it may be that the effect of personal values on vote choice depends upon whether the choice is over easy or hard issues (Carmines and Stimson 1980). And lastly, it would be interesting to know more about how different styles of political communication affect personal values. It can be inferred from our findings that a campaign slogan such as “Change,” successfully heralded by Barack Obama and his campaign, may not have only attracted political progressives but, even more fundamentally, may have enticed people endorsing *openness to change* in their daily life.

## References

- Altemeyer, B. (1981). *Right-wing Authoritarianism*. Winnipeg: University of Manitoba Press.
- Alwin, D. F., and Krosnick, J. A. (1991). Aging, Cohorts, and the Stability of Sociopolitical Orientations Over the Life Span. *American Journal of Sociology*, 97(1), 169.
- Andersen, R., and Heath, A. (2003). Social Identities and Political Cleavages: The Role of Political Context. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 166(3), 301-327.
- Ansolabehere, S., Rodden, J., and Snyder, J. M. (2008). The Strength of Issues: Using Multiple Measures to Gauge Preference Stability, Ideological Constraint, and Issue Voting. *American Political Science Review*, 102(02), 215-232.
- Barnea, M. F., and Schwartz, S. H. (1998). Values and Voting. *Political Psychology*, 19(1), 17-40.
- Baron, R. M., and Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Bartolini, S., and Mair, P. (1990). *Identity, Competition, and Electoral Availability: The Stabilisation of European Electorates 1885-1985*. Cambridge: Cambridge University Press.
- Bellamy, R. (1993). Liberalism. In R. Eatwell and A. Wright (Eds.), *Contemporary Political Ideologies* (Vol. 2nd, pp. 23-50): Continuum.
- Braithwaite, V. (1997). Harmony and Security Value Orientations in Political Evaluation. *Personality and Social Psychology Bulletin*, 23(4), 401-414.
- Brunner, M., and Sciarini, P. (2002). Chapitre 1: L'opposition ouverture-traditions. In S. Hug and P. Sciarini (Eds.), *Changements de valeurs et nouveaux clivages politique en Suisse* (pp. 29-33). Paris: L'Harmattan.
- Caprara, G. V., Schwartz, S., Capanna, C., Vecchione, M., and Barbaranelli, C. (2006). Personality and Politics: Values, Traits, and Political Choice. *Political Psychology*, 27(1), 1-28.
- Carmines, E. G., and Stimson, J. A. (1980). The Two Faces of Issue Voting. *The American Political Science Review*, 74(1), 78-91.
- Cattell, R. B. (1966). The Scree Test for the Number of Factors. *Multivariate behavioral research*, 1(2), 245-276.
- Davidov, E., Meuleman, B., Billiet, J., and Schmidt, P. (2008). Values and Support for Immigration: A Cross-country Comparison. *European Sociological Review*, 24(5), 583-599.
- Devos, T., Spini, D., and Schwartz, S. H. (2002). Conflicts Among Human Values and Trust in Institutions. *British Journal of Social Psychology*, 41(4), 481-494.
- DiStefano, C. (2002). The Impact of Categorization with Confirmatory Factor Analysis. *Structural Equation Modeling: A Multidisciplinary Journal*, 9(3), 327-346.
- Downs, A. (1957). *An Economic Theory of Democracy*. New York: Harper and Row.
- Evans, G., Heath, A., and Laljee, M. (1996). Measuring left-right and libertarian-authoritarian values in the British electorate. *British Journal of Sociology*, 47(1), 93-112.
- Feldman, S. (2003). Values, Ideology, and the Structure of Political Attitudes. *Oxford Handbook of Political Psychology*, 477-508.
- Flanagan, S. (1987). Value Change in Industrial Societies. *American Journal of Political Science*, 81(4), 1303-1318.
- Goren, P. (2005). Party Identification and Core Political Values. *American Journal of Political Science*, 49(4), 881-896.
- Goren, P. (2007). Personal Value Systems and Public Opinion: A Preliminary Report on Some New Values Items: Department of Political Science, University of Minnesota.
- Heath, A., Evans, G., and Martin, J. (1994). The Measurement of Core Beliefs and Values: The Development of Balanced Socialist/Laissez Faire and Libertarian/Authoritarian Scales. *British Journal of Political Science*, 24(1), 115-132.
- Homer, P. M., and Kahle, L. R. (1988). A Structural Equation Test of the Value-Attitude-Behavior Hierarchy. *Journal of Personality and Social Psychology*, 54(4), 638-646.

- Howell, S. E., and Day, C. L. (2000). Complexities of the Gender Gap. *Journal of Politics*, 62(3), 858-874.
- Hu, L., and Bentler, P. M. (1998). Fit Indices in Covariance Structure Modeling: Sensitivity to Underparameterized Model Misspecification. *Psychological methods*, 3(4), 424-453.
- Jacoby, W. G. (2006). Value Choices and American Public Opinion. *American Journal of Political Science*, 50(3), 706-723.
- Jost, J. T., Glaser, J., Kruglanski, A. W., and Sulloway, F. J. (2003). Political Conservatism as Motivated Social Cognition. *Psychological bulletin*, 129(3), 339-375.
- Kaiser, H. F. (1960). The Application of Electronic Computers to Factor Analysis. *Educational and psychological measurement*, 20(1), 141.
- Kerlinger, F. N. (1984). *Liberalism and Conservatism: The Nature and Structure of Social Attitudes*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Kitschelt, H. (1994). *The Transformation of European Social Democracy*: Cambridge University Press.
- Kluckhohn, C. (1951). Values and Value-Orientations in the Theory of Action: An Exploration in Definition and Classification. In T. Parsons and E. Shils (Eds.), *Toward a general theory of action* (pp. 388-433). Harvard: Harvard University Press.
- Knutsen, O. (1995). The Impact of Old Politics and New Politics Value Orientations on Party Choice: A Comparative Study. *Journal of Public Policy*, 15(1), 1-63.
- Kriesi, H., Grande, E., Lachat, R., Dolezal, M., Bornschieer, S., and Frey, T. (2006). Globalization and the Transformation of the National Political Space: Six European Countries Compared. *European Journal of Political Research*, 45(6), 921-956.
- Kuklinski, J. H. (2001). Citizens and Politics: Perspectives from Political Psychology. In J. H. Kuklinski (Ed.), *Citizens and Politics: Perspectives from Political Psychology* (pp. 355-365). Cambridge: Cambridge University Press.
- Kumlin, S., and Knutsen, O. (2005). Value Orientations and Party Choice. In J. Thomassen (Ed.), *The European Voter: A Comparative Study of Modern Democracies* (pp. 125-166). Oxford: Oxford University Press.
- Lane, R. E. (1972). *Political Man*. New York: The Free Press.
- Lasswell, H. D. (1930). *Psychopathology and Politics*. Chicago: University of Chicago Press.
- Leemann, L. (2008). *Catch Me If You Can: Revovering Sophisticated Voting in the Lower House of Switzerland*. Unpublished Master Thesis, University of Bern.
- Leimgruber, P., Hangartner, D., and Leemann, L. (2010). Comparing Candidates and Citizens in the Ideological Space. *Swiss Political Science Review*, 16(3), 499-531.
- Lindeman, M., and Verkasalo, M. (2005). Measuring Values With the Short Schwartz's Value Survey. *Journal of Personality Assessment*, 85(2), 170-178.
- Lutz, G. (2008). *Eidgenössische Wahlen 2007. Wahlteilnahme und Wahlentscheid*. Lausanne: Selects - FORS.
- Lyons, S., Duxbury, L., and Higgins, C. (2005). Are Gender Differences in Basic Human Values a Generational Phenomenon? *Sex roles*, 53(9), 763-778.
- MacCallum, R. C., and Austin, J. T. (2000). Applications of Structural Equation Modeling in Psychological Research. *Annual Review of Psychology*, 51(1), 201-226.
- Macridis, R. C., and Hulliung, M. (1997). *Contemporary Political Ideologies. Movements and Regimes*: Longman.
- Maio, G. R., and Olson, J. M. (1995). Relations Between Values, Attitudes, and Behavioral Intentions: The Moderating Role of Attitude Function. *Journal of Experimental Social Psychology*, 31(3), 266-285.
- Muthén, L. K., and Muthén, B. O. (2007). *Mplus User's Guide* (5th ed.). Los Angeles: Muthén and Muthén.
- Niemi, R. G., and Bartels, L. M. (1985). New Measures of Issue Salience: An Evaluation. *The Journal of Politics*, 47(04), 1212-1220.
- Nisbet, R. A. (1952). Conservatism and Sociology. *American Journal of Sociology*, 58(2), 167-175.

- Peffley, M. A., and Hurwitz, J. (1985). A Hierarchical Model of Attitude Constraint. *American Journal of Political Science*, 29(4), 871-890.
- Popkin, S. L. (1991). *The Reasoning Voter*. Chicago: University of Chicago Press.
- Roccas, S. (2005). Religion and Value Systems. *Journal of Social Issues*, 61(4), 747-759.
- Rohan, M. J., and Zanna, M. P. (1996). Value Transmission in Families. In C. Seligman, J. M. Olson and M. P. Zanna (Eds.), *The Psychology of Values* (Vol. 8, pp. 253–276). Mahwah, NJ: Laurence Erlbaum.
- Rokeach, M. (1973). *The nature of human values*. New York: Free Press.
- Schoen, H., and Schumann, S. (2007). Personality Traits, Partisan Attitudes, and Voting Behavior. Evidence from Germany. *Political Psychology*, 28(4), 471-498.
- Schwartz, S. H. (1992). Universals in the content and structure of values: theoretical advances and empirical tests in 20 countries. *Advances in experimental social psychology*, 25, 1-65.
- Schwartz, S. H. (1994). Are There Universal Aspects in the Structure and Contents of Human Values? *Journal of Social Issues*, 50, 19-45.
- Schwartz, S. H. (1996). Value priorities and behavior: Applying a theory of integrated value systems. In C. Seligman, J. M. Olson and M. P. Zanna (Eds.), *The Psychology of Values: The Ontario Symposium Volume 8* (Vol. 8, pp. 1-24). Mahwah, New Jersey: Lawrence Erlbaum.
- Schwartz, S. H., Melech, G., Lehmann, A., Burgess, S., Harris, M., and Owens, V. (2001). Extending the Cross-cultural Validity of the Theory of Basic Human Values with a Different Method of Measurement. *Journal of Cross-Cultural Psychology*, 32(5), 519-542.
- Sobel, M. E. (1982). Asymptotic Confidence Intervals for Indirect Effects in Structural Equation Models. *Sociological methodology*, 290-312.
- Steenbergen, M. R., and Leimgruber, P. (2010). Values and Value Change: Theoretical Approaches and Empirical Patterns. In S. Hug and H. Kriesi (Eds.), *Value Change in Switzerland* (pp. 3-22). Plymouth: Lexington.
- Tetlock, P. E., Peterson, R. S., and Lerner, J. S. (1996). Revising the Value Pluralism Model: Incorporating Social Content and Context Postulates. In C. Seligman, J. M. Olson and M. P. Zanna (Eds.), *The psychology of values* (Vol. 8, pp. 25–51). Mahwah, NJ: Laurence Erlbaum.
- van Deth, J. W. (1995). Introduction: The Impact of Values. In J. W. van Deth and E. Scarbrough (Eds.), *The Impact of Values*. Oxford: Oxford University Press.
- Verplanken, B., and Holland, R. W. (2002). Motivated Decision Making: Effects of Activation and Self-Centrality of Values on Choices and Behavior. *Journal of Personality and Social Psychology*, 82(3), 434-447.
- White, R. J. (1964). *The Conservative Tradition* (2nd ed.). London: Adam and Charles Black.
- Wilson, G. D. (1973). *The Psychology of Conservatism*. London: Academic Press.
- Wright, A. (1993). Social Democracy and Democratic Socialism. In R. Eatwell and A. Wright (Eds.), *Contemporary Political Ideologies*: Continuum.
- Zaller, J. (1992). *The Nature and Origins of Mass Opinion*. Cambridge Cambridge Univ Press.





# Effects of Party Influence and Personal Preferences on Swiss MPs' Voting Behavior: A Multilevel Analysis Based on Independent Preference Measures

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## Introduction

What factors influence the vote choices of legislators? Since the earliest days of this line of research (Turner 1951; MacRae 1952; Dexter 1957), the various loyalties of parliamentarians have been analyzed in three dimensions: party preferences, constituency preferences, and legislators' own ideological predispositions. Subsequent debates first centered on the question of whether constituency or personal preferences played the predominant role (e.g., Fiorina 1974; Mayhew 1974; Fenno 1978). Later on, following influential studies by Rohde (1991), Kiewiet and McCubbins (1991), Cox and McCubbins (1993) and others that covered the role of legislative party organizations in U.S. politics, the focal point of the controversy moved to the influence of parties in shaping legislators' voting behavior, which culminated in a debate about the relative influence of party vs. personal preferences on legislative voting (e.g., Krehbiel 1993; Binder et al. 1999; Hager and Talbert 2000; Snyder and Groseclose 2000; Ansolabehere et al. 2001).

However, despite these long-standing and engaging investigations concerning the relative strength of party influence and personal preferences, current researchers have not kept up with present-day possibilities both in terms of methodology and case selection (see e.g., Griffin 2008). There are a number of problems concerning previous attempts to assess the effects of legislators' preferences and party influences on legislative voting behavior. First, many parliaments do not provide a full record of all votes, which causes selection bias (Carrubba et al. 2006; Carey 2009; Hug 2010). Easily available (and complete sets of) roll call data and a favorable institutional framework (only two weakly organized parties, strong division of powers, candidate-centered election campaigns) with relatively low levels of party cohesion have meant that U.S.-focused research in this field is far ahead of the rest of the world (Collie 1984; Gamm and Huber 2002; Kiewiet et al. 2002; Carey 2009). Outside the U.S., similar efforts have begun only in the last decade (Kam 2001; Hix 2002; Carey 2007; but see Hertig 1978, 1980). However, the problem of data availability has resulted in a relatively weak coverage of non-U.S. contexts in general and European-style parliamentary multiparty systems in particular. To be sure, the underlying question in party-centered systems cannot be "Where's the party?" (Krehbiel 1993). Instead, research should be directed at exploring the variations of the relative strength of party influence across different vote types (Ansolabehere et al. 2001; Snyder and

Groseclose 2000), or to discover to what extent individual MPs can express their personal preferences in parliamentary voting (Kam 2001).

Second, when studies control for constituency effects, researchers often employ imperfect measures of district ideology, such as presidential votes (Ansolabehere et al. 2001) or socio-economic measures (Kam 2009). Third, there is the problem of non-independent measures of legislators' preferences (Jackson and Kingdon 1992). Some studies applied preference scores derived from legislators' voting behavior that are potentially biased by party influence (e.g., Snyder and Groseclose 2000; Cox and Poole 2002). Other researchers avoid the endogeneity problem by measuring legislators' preferences using survey data (Ansolabehere et al. 2001; Kam 2001, 2009; Hix 2002; Wright and Schaffner 2002). Even so, most of these studies inherit a further (fourth) obstacle, namely that of limited generalizability and/or validity (Lawrence et al. 2006). In some studies, researchers analyzed only one or a few roll call votes on a specific proposal (cf. Kam 2001, 2009), which leaves open the extent to which these findings can be generalized. Others, who rely on a sufficient number of roll calls, commonly regress some averaged measures of voting scores on party as well as on personal preferences (Levitt 1996; Griffin 2008). Again, the problem is that the *explanans* (voting score) is not exogenous from the *explanandum* (legislators' preferences or party influence). A last group of researchers run separate regressions on a variety of individual roll calls and then average the estimated effects and their levels of significance (Ansolabehere et al. 2001). This approach can provide first insights on the relationship between vote type and party influence (or personal preferences), but it cannot determine whether such relationships are statistically significant. Considering these two types of research designs, Lawrence et al. (2006: 59) concluded that studies conducted at the aggregate level suffer from overgeneralization, while studies of individual legislative battles lack external validity.

This notion put forth by Lawrence and his colleagues forms the starting point of our analysis. By applying a multi-level approach, wherein the roll call votes represent the higher-level units, we combine the advantages of aggregated analysis and analysis of discrete legislative episodes. This procedure not only applies to assessments of the overall effects of party influence and personal preferences on legislative voting behavior. Moreover, it is particularly suitable to test hypotheses of conditional effects, i.e., whether the relative strength of party influence varies systematically across vote types. In addition, thanks to the availability of exceptional data from Switzerland, we are able to avoid other known pitfalls. For instance, the roll calls under investigation are a full sample of votes recorded in the Swiss National Council (lower house) between 2008 and 2009, so the risk of selection bias is minimized. Similarly, legislators' preferences are measured using extensive survey data exogenous to legislative voting behavior. Finally, using the same statistical procedure, we measure

constituency ideology from a great number of popular referenda. With this different methodological approach and the highly reliable data, we aim to contribute not only to the general “party vs. preferences” debate (Kam 2001: 90). We also aim to shed light on the controversy regarding a multi-party non-majoritarian system, something not often found in the literature.

The paper proceeds as follows. The second section briefly reviews the “party vs. personal preferences” debate. Derived from the literature, the third section outlines the factors (namely closeness of the vote, the procedural stage in the lawmaking process, and party issue ownership) that may have an effect on the relative strength of party influence and, accordingly, is used to formulate hypothetical expectations. Results of tests regarding the conditional effects of these factors using a multilevel analysis are presented in Section 4. The analytical process is continued with the discussion of the results and the conclusion (Sections 5 and 6).

### **The Party vs. Preferences Debate**

Experts contend that political parties are necessary in modern democracies. The existence of unified blocs of legislators can be seen as a necessary condition for the existence of responsible party government (Bowler et al. 1999). The party cartel model, for instance, places electoral motivations at the core of party organization and emphasizes the need for a good party reputation and a clear “brand name” that conveys useful information to voters (Cox and McCubbins 1993). Establishing and maintaining a clear party label and a good reputation may require some sort of party discipline (Carey 2007). To discipline party members, leaders have a wide array of means, as they control important resources, albeit there are varying degrees of control: appointments to favorable committees, management of the legislative agenda, nominations for re-election, appointed posts, to name a few (cf. Snyder 1994; Snyder and Groseclose 2000; Carey 2009).

While hardly anyone contests that leaders have the means to exert party influence, Krehbiel (1993) famously questioned whether they need to apply them at all. According to Krehbiel (1993: 238), the crucial question is whether “individual legislators vote with fellow party members *in spite of their disagreement* [...] or *because of their agreement*.” In the former case, party unity is enforced and referred to as “discipline”; in the latter case, unity is caused by shared preferences and referred to as “cohesion” (Hazan 2003; Sieberer 2006). Subsequent researchers have taken Krehbiel’s objection seriously and aimed to disentangle the independent effects of party influence and personal preferences on legislators’ voting behavior. Yet, as a recent review shows, the findings are mixed: one study shows that the party is the most significant factor in roll-call voting, and in another, it is legislators’ ideological predispositions (Griffin 2008).

An apparent explanation for these mixed findings is empirical. For instance, the impact of party and legislators' preferences on legislative behavior is highly dependent on the political system. Kam (2001) found strong party effects in the strong party systems of Great Britain and Canada, and Hix (2002) discovered strong national party effects (as opposed to party influence at EU level) in the particular case of the weakly-integrated European party system. Studies of the U.S. Congress found generally weaker but clearly significant effects of party influence, and, in addition, the degree of party influence was found to be time-dependent, particularly in terms of polarized vs. consensual politics (e.g., Cox and McCubbins 1991). Other studies seem to have inherited selection-bias. The sample of the study by Lawrence et al. (2006), for instance, consisted of only final passage votes in the U.S. Congress, where party influence is considered to be generally weaker (Ansolabehere et al. 2001).

There may also be a methodological reason for inconsistent findings. Most importantly, many contributions can be criticized because they did not use exogenous measures, either for the dependent variable "voting behavior" or for the independent variable "personal preferences." In the former case, voting behavior (or party-deviant voting) is measured by some sort of general voting score derived from numerous roll calls (cf. Levitt 1996; Griffin 2008; Lawrence et al. 2006; Hix 2002). Interestingly, earlier studies have been criticized because researchers applied similar measures for legislators' preferences that were derived from such voting records (see Snyder and Groseclose 2000; Cox and Poole 2002). In both cases, it cannot be precluded that the measures of voting behavior or personal preferences are distorted by party influence. The endogeneity problem has been avoided in studies which used survey data to assess legislators' ideological predispositions and analyzed individual roll calls after directly observing voting behavior (Kam 2001, 2009; Ansolabehere et al. 2001). However, the validity of results based only on a few roll call votes can be questioned. Similarly, research designs that aggregate regression results from individual roll calls are prone to overgeneralization (Lawrence et al. 2006). This is particularly the case when researchers conclude that party influence is conditional on specific properties of a roll call, without providing a proper statistical test for such a claim (e.g., Ansolabehere et al. 2001; Snyder and Groseclose 2000).

While one can conclude that findings from research within the Anglo-Saxon world are inconsistent, it should be noted that research on national multi-party systems, which aims to disentangle the effects of party influence and legislators' preferences, is almost nonexistent.<sup>1</sup> Switzerland, for instance, has a mixed separation-of-powers framework that is situated between the U.S. checks and balances system and European-style parliamentary regimes (Schwarz et al. 2011). The Swiss multiparty system is rather weak at the federal level, due to its bottom-up organizational structure (strong position of

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<sup>1</sup> A notable exception is the preliminary work of Bailer et al. (2007).

district parties at sub-national or cantonal level) and scarce financial resources (Ladner 2007). Moreover, the legislative organization of the Swiss parliament is characterized by a wide diffusion of powers among parties and individual MPs (Aubert 1998; Neidhart 2007). Therefore, compared to conventional parliamentary democracies, Swiss party leaders' disciplinary means are rather limited. Consequently, party unity scores in the Swiss system, in which the executive – although elected by parliament – serves for a fixed term and the parliament cannot be dissolved by the executive, fall between U.S. and European figures. There is, however, considerable variance across parties, as well as vote types and issues (Hertig 1978; Lanfranchi and Lüthi 1999; Sciarini 2007; Hug 2010; Schwarz 2009; Tavits 2009). Thus, in contrast to the U.S. system about which scholars dare to ask, “Where’s the party?” (Krehbiel 1993), and in contrast to parliamentary systems such as that of the U.K. where party influence can be taken for granted, Switzerland constitutes a suitable case to investigate whether the relative strength of party influence is dependent on specific properties of a roll call.

### **The Relative Strength of Party Influence and the Conditional Effects of the Vote Type**

There are several hypotheses related to the relative strength of party influence. One addresses the uncertainty of the vote outcome. Different “vote-buying” models imply that rational party leaders would use their resources to discipline their members only when party influence could change the vote outcome (e.g., Groseclose 1996; Snyder 1991). When the outcome is uncertain, party leaders can influence the vote by forcing members to stay in line. On the other hand, when the result appears certain from the outset, party leaders' efforts to bring their members in line are a waste of already scarce resources. Thus, the rationale of vote buying implies that party pressure will be evident in a priori close roll calls but not when they are lopsided. Empirical evidence indicates that this conditional effect of closeness on party influence also applies in the U.S. Congress (Snyder and Groseclose 2000; Ansolabehere et al. 2001). However, these authors came to that conclusion merely by comparing the number of significant party coefficients in lopsided and in close votes although their research designs did not allow them to provide statistical tests for this difference.

A further factor assumed to enhance party influence is the procedural stage through which a lawmaking proposal travels. Procedural cartel theory predicts that party pressure is higher on procedural and organizational votes compared to substantive votes (Cox and Poole 2002). According to this view, party leaders use agenda control as their principal tool to control policy. They aim to control the agenda to produce policies that benefit their members and to keep divisive issues off the docket (Cox and McCubbins 1993). Empirical evidence indicates that party pressure is highest prior to procedural and organizational votes and lowest prior to final passage votes (Snyder and Groseclose

2000; Ansolabehere et al. 2001; Cox and Poole 2002). Although in the Swiss parliamentary system, procedural mechanisms are less relevant than in the U.S. system, Hug (2010) hypothesized that final passage votes often represent a formality as most elements causing conflict have already been resolved at this stage. Thus it can be expected that in the Swiss legislative process, party pressure is higher on detailed deliberation votes, when substantive conflicts need to be resolved, compared to final passage votes.

A third vote context assumed to affect the degree of party influence is the policy area, and it is labeled “issue ownership” (Petrocik 1991). According to party cartel theory, party pressure should be higher on votes that are key to defining the parties’ labels as compared to those electorally less important (Cox and Poole 2002). Parties are therefore particularly concerned about maintaining their reputations in specific policy domains. Empirical research pertaining to the U.S. Congress supports the hypothesis that issue ownership is an influence that is above average for label-defining votes such as taxes and welfare (Cox and Poole 2002; Ansolabehere et al. 2001). Yet the research designs applied do not allow determining which party accounts for the stronger party effect or whether both (Republicans and Democrats) have issue ownership related to these areas. We will go a step further and determine label-defining issue areas for each major Swiss party except the Christian Democrats, which serves as the reference category. For instance, we hypothesize that party influence should be greater on legislators who belong to the Swiss People’s Party (SVP) when security issues are addressed, and for members of the Liberal Party (FDP) this is true when the economy is addressed. For Social Democrats (SP), we assumed that social issues were label-defining, and for the Greens, we expected higher party pressure related to environmental issues (cf. Schwarz et al. 2010).

To sum up and make some predictions for the empirical analysis: We expect that in light of the Swiss institutional setting, both party influence and personal preferences contribute significantly to Swiss legislators’ voting behavior. In addition, we expect party influence to be stronger when the vote outcome is close and when a vote is taken during detailed deliberation processes. Similarly, we expect to find extra-party pressure when a roll call addresses the core issues of a specific party.

## Empirics

### *Data and Measures*

Our analysis was based on three different data sources: roll-call voting data, data collected through a survey of the legislators, and data on popular votes on the cantonal (electoral district) level. Concerning roll-call data, our sample covered the first 500 votes in the lower-house of the 48<sup>th</sup> legislature, which took place between winter 2007 and spring 2008. As this is a full sample of that period that includes all voting results published automatically, any selection bias is precluded (see Hug 2010). Of particular interest in regard to the hypotheses, the sample covered 205 votes after detailed deliberation processes and 27 final passage votes. Roughly half of the sample (N = 253) was close votes, i.e., where the winning side made up less than 65% of the vote share (see Snyder and Groseclose 2000). The sample also included a large variety of political issues. Of special interest were the votes predominantly addressing the following issues: economic (N = 74), social (N = 57), security (N = 40), and the environment (N = 29).<sup>2</sup> In the subsequent multi-level analysis, where the vote number is the second level unit, the legislators' vote choice is the dependent variable. We poled vote choices in the same direction, so "yea" (coded as 1) always denotes the alternative favored by rightist parties, and conversely "nay" (coded as 0) always denotes the leftist alternative.<sup>3</sup>

In order to measure the personal preferences of the MPs, we relied on data which were exogenous to their voting behavior. We used the 2007 survey of the "smartvote" project, conducted by a non-partisan public interest organization (Thurman and Gasser 2009; Gasser et al. 2010).<sup>4</sup> All candidates running in the 2007 elections were asked to take part in a survey covering 63 issues that were on the national political agenda. The candidates' political stances were made public on an open Internet platform prior to the elections, implying that the answers are the legislators' electorally revealed preferences, reflecting the balance struck between personal conviction and electoral strategies. Thanks to the high response rate, our sample encompassed 172 of 186 elected legislators who represent the five main Swiss parties (see also Table 1). The legislators' preferences, or more broadly, their ideologies, were assessed by employing the well-established W-NOMINATE procedure (Poole 2005; Poole et al. 2007), which has been successfully applied to the Swiss case by Hug and Schulz

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<sup>2</sup> All data is taken from <http://www.smartmonitor-database.ch>. The operationalization of the issue areas follows the official classification of the Swiss Parliamentary Services.

<sup>3</sup> For this procedure, we took the following steps. First we calculated the W-NOMINATE scores (cf. Poole 2005; Poole et al. 2007) for all MPs based on the roll-call votes. MPs who scored higher on the first and dominant dimension (with a range from -1 to 1) were considered to have a politically right ideology. We then correlated these W-NOMINATE scores with the choices in each vote. If the correlation coefficient was positive (i.e., politically right MPs tend to vote "yea" in a given roll call) we knew the vote choice had already been coded correctly. When the correlation coefficient was negative, we inverted the vote choice variable. Regarding the predominant left-right dimension in Swiss politics, see further information below.

<sup>4</sup> See <http://www.smartvote.ch>



(2007). The results obtained show that the first dimension clearly dominates with leftist MPs (Greens, Social-Democrats) receiving negative scores, national-conservative MPs highly positive scores, while moderate bourgeois MPs (Christian-Democrats, Liberals) falling in-between. It is safe to assume that this first W-NOMINATE dimension captures the predominant left-right cleavage in Swiss politics (Hug and Schulz 2007). We will include the W-NOMINATE scores of this dimension as an independent variable in the empirical models, with a range from -1 to +1.

The other independent variable of interest is party affiliation. We restrict the analysis to the five largest parties, which together secured about 80% of the votes in 2007 and held 186 out of 200 seats in the lower house of the 48<sup>th</sup> legislature: the Liberal Free Democrats (FDP), the moderate Christian Democratic Party (CVP), the Social Democratic Party (SP), the national-conservative Swiss People’s Party (SVP), and the Greens. Except for the Greens, these parties were also represented in the consociational government at the time. Two kinds of party measures will be included in subsequent models. One is an ordinary dummy variable, where CVP is the reference category. The second type of party variable, which we call “party preference,” is the mean of the party members’ personal preferences. To illustrate, the mean W-NOMINATE score of FDP legislators obtained from the smartvote survey is .357, so the value of the “party preference” variable is .357 for all FDP MPs.<sup>5</sup> As one can see in Table 1, the SVP legislators hold the most rightist position overall, while the Greens hold the most leftist, and the CVP is closest to the moderate center of the political landscape. In addition, it is apparent that the SP reveals the largest within-party variance. All in all, these properties are in line with previous findings concerning the Swiss parties’ ideologies and the intra-party variances of legislators’ value orientations (see Leimgruber et al. 2010).

Table 1: Party Statistics

	Seats in National Council	MPs covered in Sample	Party Mean Preferences	SE of Party Mean
FDP	35	30	.357	.138
CVP	31	31	.191	.195
SP	42	41	-.634	.374
SVP	58	50	.688	.175
Greens	20	20	-.678	.266
<i>Total</i>	<i>186</i>	<i>172</i>		

*Note.* The Swiss National Council has a total of 200 seats. The maximum right-authoritarian preference score is +1, and the maximum left-libertarian score is -1.

<sup>5</sup> Note that the party mean variable could also be operationalized as a higher-level predictor. Likewise, however, MPs are also nested in electoral districts (cantons). Introducing these predictors on higher levels, in addition to the vote type clusters, would result in cross-classified models that are computationally too demanding (see Rasbash et al. 2009). Therefore, we treated district variables as well as the party mean variable as level 1 predictors, keeping in mind that their effects tend to be overestimated.

A further factor assumed to have an impact on legislators' voting behavior is the overall ideological position of the legislators' constituencies. We used data on 199 national popular votes held between 1999 and 2010 to assess the constituency preferences. More precisely, we first dichotomized the cantonal (i.e., constituency) results of each popular vote, where more than 50% of yeas were coded as 1, and 50% and less were coded as 0. Based on these figures, we then calculated W-NOMINATE scores for the cantons akin to the personal preferences based on the smartvote survey. Again, we retained the first and dominant dimension, so the higher the score of a constituency the more to the political right it stands. Finally, we also included two additional control variables in the equations, namely gender (1=male, 0=female) and age (in years).

### *Method and Results*

As noted above, researchers aiming to assess the net effects of party influence and personal preferences either analyze one or a few roll calls related to a specific proposal (cf. Kam 2001, 2009), or they simply average the coefficients (and their levels of significance) obtained by examining a large number of individual roll calls (Ansolabehere et al. 2001). The first procedure results in limited validity, and the second is prone to overgeneralization (Lawrence et al. 2006). By applying multi-level logit regression models, where the specific vote is defined as the higher-level unit and a legislator's vote choice in each roll call is the dependent variable, we exploited the advantages of both approaches. This procedure was particularly favorable since we aimed to test whether the strength of party influence is dependent on vote type. To test such conditional effects, we applied cross-level interactions between vote type and party affiliation. The multi-level approach also allowed us to use the full sample of roll calls. In contrast, studies that average the results of individual roll calls need to exclude a priori "hurrah" votes, where almost all of the legislators voted unanimously, which results in insufficient variance in the dependent variable (Ansolabehere et al. 2001). Similarly, sometimes specific roll calls have been excluded because of severe multi-collinearity between party affiliation and personal preferences or because of perfect separation problems, i.e. when all party members vote in unison (Snyder and Groseclose 2000).

Before we discuss the empirical models and their results, it is important to stress an implicit assumption of the empirical models. Both operationalizations of the party variable (party dummy or party mean preferences) imply that party influence is uniform across all party members, whether they are party conformists or non-conformists. This is, of course, a strong assumption, which can hardly be defended on theoretical grounds, as it is reasonable to assume that party leaders concentrate their influence on potential defectors rather than on perceived loyalists. To counter this

argument, however, we included interaction terms in the models presented below, letting the party variable interact with a dichotomous variable (“conformists” = within one standard deviation of the mean party preference; “outliers” = outside of one standard deviation). In these models (not reported), we did not find any significant effects that would indicate that party influence is conditional on conformity. This finding, although rather unexpected, is more or less consistent with results from Ansolabhere et al. (2001), who found only slightly more frequent incidences of party effects among non-conformists.

To determine the net effects of party affiliation and personal preferences, we applied four different hierarchical logit regressions, where the 500 votes were the higher level units and vote choice was the dependent variable. In Models 1 and 3, we included the mean party preference scores as the party variable, and in Models 2 and 4 we included the party dummy, with party CVP as the reference category. Note that, as explained above, the dependent variable is poled, so a “yea” (=1) vote always denotes the more rightist choice alternative. However, as the substance of a proposal varies across roll calls, a “yea” vote is not equal to the political right in each roll call, and, respectively, a “nay” vote is not always equal to the political left. We take that into account by letting not only the intercept vary across roll calls but also the slopes of “personal preferences” and “party preferences,” as well as the intercepts of the party dummy.

Let us turn first to the baseline models 1 and 2 (see Table 2) to determine the overall effects of personal preferences and party affiliation on legislators’ voting behavior across all 500 roll calls. In these models, personal preferences were found to be a strong predictor of vote choice; its log-odds are similarly large in both models (2.433 in Model 1, 2.308 in Model 2) regardless of how the party variable is operationalized. That party affiliation also has an independent effect on vote choice is confirmed in both models. In Model 1, the coefficient of party preferences equals 1.381 ( $p < .01$ ), and in Model 2, all party categories are significant, confirming thereby what can be inferred from the party descriptions reported in Table 1, as the coefficients of the parties of the right (FDP and SVP) are positive, and those of the left (SP and Greens) are negative. Regarding the control variables, only age was a consistent though weak predictor of legislators’ voting behavior, while gender and cantonal ideology were only significant in one of the two models.

Table 2: Overall Effects on Legislators' Vote Choice (Hierarchical Logit Regressions)

<b>Model 1</b>				<b>Model 2</b>			
	Coefficient		SE		Coefficient		SE
<i>Fixed Effects</i>				<i>Fixed Effects</i>			
Constant	-.708	**	.093	Constant	-.649	**	.099
Personal (preferences)	2.433	**	.116	Personal (preferences)	2.308	**	.103
Party (preferences)	1.381	**	.046	FDP	.361	**	.075
Gender	.100	**	.025	SP	-.494	**	.092
Age	.003	**	.001	SVP	1.588	**	.145
Cantonal ideology	.042	*	.019	Greens	-.969	**	.168
				Gender	-.031		.025
				Age	.003	**	.001
				Cantonal ideology	-.011		.020
<i>Random Effects</i>				<i>Random Effects</i>			
Variance constant	2.508	**	.164	Variance constant	2.769	**	.188
Variance slope personal	5.684	**	.416	Variance slope personal	4.229	**	.324
Variance slope party	.192	**	.065	Variance intercept FDP	2.401	**	.176
				Variance intercept SP	3.302	**	.265
				Variance intercept SVP	9.750	**	.660
				Variance intercept Greens	12.194	**	.889
<i>N</i>	71746				71746		
<i>N</i> clusters	500				500		

*Note.* Coefficients are log-odds. Estimation procedure is 1<sup>st</sup> order marginal quasi-likelihood and RIGLS. Reference category of the party dummy (Model 2) is party CVP. Average cluster size is 143; range of cluster size is 87-163.

\*  $p < .05$ ; \*\*  $p < .01$

To interpret the effects in a more meaningful way and to assess the relative strength of party influence and personal preferences, we report in Table 3 discrete changes in predicted probabilities based on the coefficient obtained in Model 2. Looking at these discrete changes, we see sizable effects for both predictors, yet the effect of personal preferences appears to be larger. For example, moving personal preferences from the minimum (-1) to the maximum (+1) produces a boost in the predicted probability of a right-leaning vote of .506 points, and moving from one standard deviation below to one standard deviation above the mean enhances the predicted probability by .377. These discrete changes are larger than those produced by party affiliation. For instance, a maximum move from Greens to SVP, again holding all else equal, produces a boost of only .241, and the small discrete change from Greens to CVP is not even significant (the confidence intervals of the predicted probabilities overlap). All in all, the discrete changes suggest that the effect of personal preferences is stronger than that of party influence.

Table 3: Discrete Change in the Predicted Probabilities of a “Yea” (Right-authoritarian) Vote, Based on Model 2

	Min -> Max	± SD	± 0.5 SD
Personal Preferences	+.506	+.377	+.190
	Greens -> SVP	CVP -> SVP	Greens -> CVP
Party	+.241	+.216	+.025

*Note.* Predicted probabilities computed averaging over the random effect distribution. Gender hold at 1 (men), all other predictors hold at their means.

As discussed in the theory section, particular party influences are believed to be conditional on vote type. In Model 3, we tested two of these conditional effects by introducing cross-level interactions (Table 4). The first operationalizes the assumption that party influence is stronger when the outcome of the vote result is uncertain and therefore anticipated to be close. Following Snyder and Groseclose (2000), we defined the a priori closeness of a roll call by treating all votes that resulted in less than a 65% vote on the winning side as close and the rest as lopsided. We let this dichotomous variable (close = 1, lopsided = 0) interact with both mean party preference and personal preferences. The results yielded by these interactions introduced in Model 3 are rather unexpected. Although it is confirmed that party influence is stronger when the vote outcome is close – the interaction term (.340) is significant – it must be noted that even more conditional on closeness are personal preferences. When the outcome is close, the log-odds of personal preferences equal 3.617 (1.851 + 1.766), but it is only 1.766 if the vote outcome is lopsided.

More in line with theoretical expectations are the other conditional effects tested in Model 3, those related to detailed deliberation votes and final passage votes. As others have argued, party influence is assumed to be generally stronger in detailed deliberation votes but weaker in final passage votes. We captured these mechanisms by introducing cross-level interactions of these two vote types with personal and party preferences in Model 3. Indeed and as expected, the only significant conditional effect is that of the detailed deliberation vote and party membership (log-odds equals .244). This means that legislators’ voting decisions are more strongly influenced by party affiliation during detailed deliberation processes compared to all other vote types.

Finally, we were interested in a last group of conditional effects, namely issue ownership. We hypothesized that the Swiss Liberal Party (FDP) has strong incentives to act cohesively when proposals concern the economy while the Swiss Popular Party (SVP) does so when security issues are addressed, the Social Democrats (SP) on “social” issues, and the Greens when it comes to the environment. We introduced interactions of those selected issues with the party dummy as well as with personal preferences in Model 4. As can be seen, the empirical results on the issue ownership hypothesis are rather mixed. No conditional effects were found among the left parties (SP and

Greens), whereas party influence on the right parties (FDP and SVP) was stronger when their core issues are concerned. The interaction term “FDP\*economy,” for instance, equals 1.458 and is statistically significant. Likewise the interaction “SVP\*security” (1.880) indicates that the influence of the SVP on their MPs’ voting behavior is stronger when the vote is about security issues.

Table 4: Conditional Effects of Party Influence on Legislators’ Vote Choices (Hierarchical Logit Regressions)

	Model 3			Model 4		
	Coefficient		SE	Coefficient		SE
<i>Fixed Effects</i>				<i>Fixed Effects</i>		
Constant	-.720	**	.135	Constant	-.704	** .112
Personal (preferences)	1.851	**	.222	Personal (preferences)	2.378	** .126
Party (preferences)	1.383	**	.088	FDP	.193	* .081
Gender	.097	**	.025	SP	-.546	** .098
Age	.002	*	.001	SVP	1.505	** .145
Cantonal ideology	.044	*	.019	Greens	-1.003	** .177
				Gender	-.034	.025
Close vote	-.278		.144	Age	.003	** .001
Detailed delib. vote	.229		.148	Cantonal ideology	-.012	.020
Final vote	.592		.400			
				Issue economy	-.258	.182
Close vote*personal	1.766	**	.268	Issue security	.655	** .234
Close vote*party	.340	**	.110	Issue social	.342	.211
Detailed vote*personal	-.109		.275	Issue environment	-.192	.284
Detailed vote*party	.244	*	.112			
Final vote*personal	-.170		.740	Economy*personal	.975	** .258
Final vote*party	-.121		.292	Economy*FDP	1.458	** .207
				Security*personal	-.846	* .348
				Security*SVP	1.880	** .414
				Social*personal	-.512	.314
				Social*SP	.207	.207
				Environment*personal	.165	.360
				Environment*Greens	.772	.667
<i>Random Effects</i>				<i>Random Effects</i>		
Variance constant	2.497	**	.164	Variance constant	2.804	** .190
Variance slope personal	7.925	**	.563	Variance slope personal	4.260	** .329
Variance slope party	.598	**	.091	Variance intercept FDP	2.470	** .182
				Variance intercept SP	3.444	** .276
				Variance intercept SVP	9.381	** .642
				Variance intercept Greens	12.645	** .930
<i>N</i>	71746			71746		
<i>N</i> clusters	500			500		

Note: Coefficients are log-odds. Estimation procedure is 1<sup>st</sup> order marginal quasi-likelihood and RIGLS. Reference category of the party dummy (Model 4) is party CVP. Average cluster size is 143; range of cluster size is 87-163.

\* p < .05; \*\* p < .01

## Discussion

The main finding from the two baseline models (Models 1 and 2) is that MPs' voting behavior is influenced by both their ideological preferences and their party affiliation. This suggests, first, that parties have the capacity to rein in the effects of ideological differences among party members. This finding is important as a mere descriptive inspection of the MPs' preferences indicates that not only the within-party variance of the MPs' preferences is substantial (particularly within the SP) but, above all, the mean party preferences are, in some cases, not even significantly different from each other (for instance, SP and the Greens, and CVP and FDP). From another perspective, however, one can emphasize that personal preferences are an independent and strong factor related to MPs voting behavior even in a multi-party system such as Switzerland. Conventional measures of party cohesion indicate a higher degree of party unity in the Swiss legislature compared to presidential systems such as that of the United States. And indeed, one finds many incidences where the Swiss parties vote univocally in the National Council.<sup>6</sup> Yet despite this higher party uniformity of legislators' behavior and sometimes even perfect uniformity, we can conclude that across a large sample of roll calls Swiss MPs do not merely act as party conformists but also rely on their personal preferences when casting a vote.

Although we found significant party influence, it must be noted that party leaders hold additional means to induce their party members to conform, which are outside of the legislative process and occur prior to elections (Sieberer 2006; Carey 2009). Therefore, we cannot be absolutely sure whether our measures of personal preferences based on the smartvote survey were independent from party pressure (Griffin 2008). They were, however, independent from legislative voting behavior, where attempts to exert party pressure can be taken for granted, but it cannot be entirely precluded that some parties had exerted influence on candidates answering the publicly available survey. The answers of the candidates in the survey are all other than partisan-univocal, which indicates that party discipline prior to the parliamentary election could not be very strong. The bottom line is that we only investigated party influence in the process of legislative voting, and we found clear evidence that it exists.

An additional factor commonly seen to affect legislators' voting behavior is the ideology of their electoral district (cf. Miller and Stokes 1963; Bowler and Farrell 1993; but see Poole and Rosenthal 1984). Based on popular votes, we assessed cantonal ideology with the same statistical procedure we used to estimate personal preferences. This measure of cantonal preferences can therefore be regarded as advantageous to other commonly employed proxies – such as percentage of immigrants,

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<sup>6</sup> According to our own calculations, between winter 2007 and summer 2010 the MPs of SP voted in 77% of all roll calls in unison (GPS: 74%, FDP: 54%, SVP: 51%, CVP: 34%).

Catholics and non-religious (Kam 2009) – and is arguably as good as measures that are not available in Switzerland, such as shares of presidential votes (Ansolabehere et al. 2001). Yet we found no consistent constituency effect, despite the fact that the district measure was included – disputable from a statistical perspective – in the empirical models as an individual variable and therefore likely to be overestimated. One reason that we found no consistent constituency effect may be that officials respond only to the constituency preferences of their *supporters* (Fiorina 1974; Clinton 2006). As noted above, Swiss parties are organized along a federalist bottom-up structure in which the district parties are responsible for the nomination of candidates; it thus seems an expedient extension for future research to consider the ideological positions of cantonal parties.<sup>7</sup>

In the hierarchical logit regression models, we tested conditional effects of party influence and found mixed results with regard to theoretical expectation. While, for instance, they confirm party influence to be greater when there are close votes, they reveal that personal preferences also become a stronger predictor of vote choice when the outcome is uncertain. The latter finding contradicts to some extent what can be inferred from previous research, so one can only speculate about its causes. For instance, it may be the case that close votes, in contrast to lopsided votes, are framed in a manner so that they represent more adequately predominant conflict lines, so party as well as personal preferences become stronger predictors of legislators' voting behavior. Another ad-hoc explanation could be that legislators anticipate being held more accountable for their vote choice when the vote is uncertain and more publicly visible (cf. Ansolabehere et al. 2001: 552), so they withhold influence from interest groups outside the legislative arena. In addition, other intervening factors, not accounted for in our models, like committee-membership (cf. Cox and McCubbins 1991), may become weaker in close votes.

Mixed results were also found with regard to the issue ownership thesis (Cox and McCubbins 1993; Cox and Poole 2002; Ansolabehere et al. 2001). We found evidence only that the parties of the right (FDP and SVP) exhibit stronger party pressure when at least one of their core issues is at stake, but this is not so for the parties of the left (SP and Greens). Here it is advisable to interpret the results rather conservatively and to avoid rejecting the hypothesis too early. Because we are only confident about having detected core issues of the right parties: the Liberals undisputable is *the* party of the “economy” and likewise “security” is clearly a central topic of the Swiss People's Party. At first glance, this seems to hold also for the Greens to whom we attributed environmental issues as label defining. However, it must be noted that the Social Democrats equally value the environment and

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<sup>7</sup> Yet what we can rule out is a possible explanation by district magnitude effects (Switzerland's 26 electoral districts are currently divided into 6 single-member and 20 multi-member districts with up to 34 seats) since the additional integration of a district size variable into our models (not reported here) has not produced consistent effects either.



support similar measures to protect it (Hermann 2008). Thus, it can be inferred that we found no issue ownership effects among the left wing parties not because they do not try to exert extra pressure when their core issues are concerned but rather because they do not hold core issues which clearly distinguish one party from another.

## **Conclusion**

Our analysis suggests one broad conclusion: both party influence and personal preferences play important and independent roles in Swiss legislators' voting behavior. Contrary to Krehbiel's (1993) reasoning, we showed that Swiss parties are not mere conglomerates of like-minded individuals, so party unity is not something occurring automatically but has to be enforced by discipline, at least in a large number of instances. On the other hand, Swiss legislators are far from being mere party soldiers who act according to their parties' overall preferences. On the contrary, personal preferences were found to be an even stronger predictor of MPs' voting behavior. This finding is particularly intriguing, as uniform party voting is often observed in Switzerland, too.

That personal preferences and party influence need to be regarded as complementary rather than contrarian is also underscored by our findings concerning the conditional effect of vote outcome. Previous research unambiguously indicated that party influence must be stronger when the outcome is uncertain (Ansolabehere et al. 2001; Snyder and Groseclose 2000). The multi-level approach employed in our analysis allowed for a more thorough investigation of this assumed relationship and, more importantly, allowed us to test the same relationship with personal preferences. Indeed, our results not only suggested that party influence was dependent on the closeness of vote outcome but this was even more the case regarding personal preferences. The closer the vote outcome, the more easily one can predict legislators' vote choice. We regard this finding as having great potential for future research concerning the following questions. Do uncertain outcomes mean that MPs rely more heavily on their own beliefs because in such incidences their vote choices are more likely to get public attention? In addition, do other influential sources, like lobbying by interest groups or committee membership, therefore decrease?

Similarly, our findings concerning issue ownership need to be replicated. We detected such effects only for the Swiss parties on the right but not those on the left. We are not in a position to establish whether this is because the leftist parties do not exert extra pressure when their core issues are addressed or whether the SP and the Greens do not hold sufficiently distinct core issues. Swiss legislative research could concentrate on disentangling the potential causes. Lastly, confirming theoretical expectations, we found evidence that party influence varies across the legislative stages

of proposals. Votes during detailed deliberation, when struggles over conflicting elements of the proposal are likely to be present, are more prone to party influence compared to final passage votes, which more often are a formality. This finding establishes a notable challenge for international research. In contrast to the rules of the Swiss parliament, in which all roll calls are published automatically, in many countries this is only the case when party leaders request that it be done. Thus, when researchers can only rely on a subsample of roll calls, their findings may be biased (Hug 2010).

## References

- Ansolabehere, Stephen, James M. Snyder, and Charles Stewart III. 2001. The Effects of Party and Preferences on Congressional Roll-Call Voting. *Legislative Studies Quarterly* 26 (4):533-72.
- Aubert, Jean-François. 1998. *The Swiss Federal Assembly, 1848-1998*. Basel: Helbing & Lichtenhahn.
- Bailer, Stefanie, Sarah Bütikofer, Simon Hug, and Tobias Schulz. 2007. Preferences, Party Discipline and Constituency Pressure in Swiss Parliamentary Decisions. Paper presented at the ECPR General Conference in Pisa. University of Zurich.
- Binder, Sarah A., Eric D. Lawrence, and Forrest Maltzman. 1999. Uncovering the Hidden Effect of Party. *The Journal of Politics* 61 (03):815-31.
- Bowler, Shaun and David M. Farrell. 1993. Legislator Shirking and Voter Monitoring: Impacts of European Parliament Electoral Systems upon Legislator-Voter Relationships. *Journal of Common Market Studies* 31 (1):47-71.
- Bowler, Shaun, David M. Farrell, and Richard S. Katz. 1999. Party Cohesion, Party Discipline, and Parliaments. In *Party Discipline and Parliamentary Government*, edited by S. Bowler, D. M. Farrell and R. S. Katz. Columbus: Ohio State University Press.
- Carey, John M. 2007. Competing Principals, Political Institutions, and Party Unity in Legislative Voting. *American Journal of Political Science* 51 (1):92-107.
- . 2009. *Legislative Voting and Accountability*. Cambridge: Cambridge University Press.
- Carrubba, Clifford J., Matthew Gabel, Lacey Murrah, Ryan Clough, Elizabeth Montgomery, and Rebecca Schambach. 2006. Off the Record: Unrecorded Legislative Votes, Selection Bias and Roll-Call Vote Analysis. *British Journal of Political Science* 36 (4):691-704.
- Clinton, Joshua D. 2006. Representation in Congress: Constituents and Roll Calls in the 106th House. *Journal of Politics* 68 (1):397-409.
- Collie, Melissa P. (1984). Voting Behavior in Legislatures. *Legislative Studies Quarterly* 9 (1):3-50.
- Cox, Gary W., and Matthew D. McCubbins. 1991. On the Decline of Party Voting in Congress. *Legislative Studies Quarterly* 16 (4):547-70.
- . 1993. *Legislative Leviathan. Party Government in the House*. Berkeley CA: University of California Press.
- Cox, Gary W., and Keith T. Poole. 2002. On Measuring Partisanship in Roll-Call Voting: The U.S. House of Representatives, 1877-1999. *American Journal of Political Science* 46 (3):477-89.
- Dexter, Lewis A. 1957. The Representative and His District. *Human Organization* 16 (1):2-13.
- Fenno, Richard F. 1978. *Home Style: House Members in their Districts*. Boston: Little, Brown.
- Fiorina, Morris P. 1974. *Representatives, Roll Calls, and Constituencies*. Lexington, Mass: Lexington Books.
- Gamm, Gerald, and John Huber. 2002. Legislators as Political Institutions: Beyond the Contemporary Congress. In *Political Science: State of the Discipline*, edited by I. Katznelson and Helen V. Milner. New York and Washington, D.C.: W. W. Norton and American Political Science Association.
- Gasser, Urs, James M. Thurman, Richard Stäuber, and Jan Gerlach. 2010. *E-Democracy in Switzerland: Practice and Perspectives*. Zurich/St. Gall: Dike.
- Griffin, John D. 2008. Measuring Legislator Ideology. *Social Science Quarterly* 89 (2):337-50.
- Hager, Gregory L., and Jeffrey C. Talbert. 2000. Look for the Party Label: Party Influences on Voting in the US House. *Legislative Studies Quarterly* 25 (1):75-99.
- Hazan, Reuven Y. 2003. Does Cohesion Equal Discipline? Towards a Conceptual Delineation. *Journal of Legislative Studies* 9 (4): 1-11.
- Hermann, Michael. 2008. Politische Zwillinge: Wie Grüne und SP im Bundesparlament politisieren. In *Die Grünen in der Schweiz*, edited by M. Baer and W. Seitz. Zürich/Chur: Rüegger.
- Hertig, Hans-Peter. 1978. Party Cohesion in the Swiss Parliament. *Legislative Studies Quarterly* 3 (1):63-81.
- Hertig, Hans-Peter. 1980. Partei, Wählerschaft oder Verband? Entscheidungsfaktoren im eidgenössischen Parlament. Bern: Francke.

- Hix, Simon. 2002. Parliamentary Behavior with two Principals: Preferences, Parties, and Voting in the European Parliament. *American Journal of Political Science* 46 (3):688-98.
- Hug, Simon. 2010 Selection Effects in Roll Call Votes. *British Journal of Political Science* 40 (1):225-35.
- Hug, Simon and Tobias Schulz. 2007. Left-Right Positions of Political Parties in Switzerland. *Party Politics* 13 (3):305-330.
- Jackson, John E., and John W. Kingdon. 1992. Ideology, Interest Group Scores, and Legislative Votes. *American Journal of Political Science* 36 (3):805-23.
- Kam, Christopher J. 2001. Do Ideological Preferences Explain Parliamentary Behaviour? Evidence from Great Britain and Canada. *The Journal of Legislative Studies* 7 (4):89-126.
- . 2009. *Party Discipline and Parliamentary Politics*. Cambridge: Cambridge University Press.
- Kiewiet, D. Roderick, and Mathew D. McCubbins. 1991. *The Logic of Delegation: Congressional Parties and the Appropriations Process*. Chicago: University of Chicago Press.
- Kiewiet, D. Roderick, Gerhard Loewenberg, and Peverill Squire. 2002. The Implications of the Study of the U.S. Congress for Comparative Legislative Research. In *Legislatures: Comparative Perspectives on Representative Assemblies*, edited by Gerhard Loewenberg, Peverill Squire, and D. Roderick Kiewiet. Ann Arbor: University of Michigan Press.
- Krehbiel, Keith. 1993. Where's the Party? *British Journal of Political Science* 23 (2):235-66.
- Ladner, Andreas. 2007. Political Parties. In *Handbook of Swiss Politics*, edited by U. Klöti, P. Knoepfel, H. Kriesi, W. Linder, Y. Papadopoulos, and P. Sciarini. Zürich: Neue Zürcher Zeitung Publishing.
- Lanfranchi, Prisca, and Ruth Lüthi. 1999. Cohesion of Party Groups and Interparty Conflict in the Swiss Parliament: Roll Call Voting in the National Council. In *Party Discipline and Parliamentary Government*, edited by S. Bowler, D. M. Farrell, and R. S. Katz. Columbus: Ohio State University Press.
- Lawrence, Eric D., Forrest Maltzman, and Steven S. Smith. 2006. Who Wins? Party Effects in Legislative Voting. *Legislative Studies Quarterly* 31 (1):33-69.
- Leimgruber, Philipp, Dominik Hangartner, and Lucas Leemann. 2010. Comparing Candidates and Citizens in the Ideological Space. *Swiss Political Science Review* 16 (3):533-64.
- Levitt, Steven D. 1996. How Do Senators Vote? Disentangling the Role of Voter Preferences, Party Affiliation, and Senator Ideology. *The American Economic Review* 86 (3):425-41.
- MacRae, Duncan. 1952. The Relation between Roll-Call Votes and Constituencies in the Massachusetts House of Representatives. *American Political Science Review* 46 (4):1046-55.
- Mayhew, David R. 1974. *Congress: The Electoral Connection*. New Haven: Yale University Press.
- Miller, Warren E., and Donald E. Stokes. 1963. Constituency Influence in Congress. *American Political Science Review* 57 (1): 45-57.
- Neidhart, Leonhard. 2007. Mehr "Rat" als Parteien-Parlament. *Neue Zürcher Zeitung*, 26: 18.
- Petrocik, John R. 1991. Divided Government: Is it all in the Campaigns? In *The Politics of Divided Government*, edited by G. W. Cox and S. Kernell. Boulder, CO: Westview Press.
- Poole, Keith T. 2005. *Spatial Models of Parliamentary Voting*. Cambridge: Cambridge University Press.
- Poole, Keith T., Jeffrey Lewis, James Lo, and Royce Carroll. 2007. Scaling Roll Call Votes with wnominate in R. *Journal of Statistical Software* 22 (1).
- Poole, Keith T., and Howard Rosenthal. 1984. The Polarization of American Politics. 46 (4): 1061-1079.
- Rasbash, Jon, Fiona Steele, William J. Browne, and Harvey Goldstein. 2009. *A User's Guide to MLwiN. Version 2.10*. University of Bristol.
- Rohde, David W. 1991. *Parties and Leaders in the Postreform House*. Chicago: University of Chicago Press.
- Schwarz, Daniel. 2009. *Zwischen Fraktionszwang und freiem Mandat*. Norderstedt: Books on Demand.
- Schwarz, Daniel, André Bächtiger, and Georg Lutz. 2011. Switzerland: Agenda Setting Power of Government in a Separation-of-Powers Framework. In *The Role of Governments in Legislative Agenda Setting*, edited by G. Tsebelis and B. E. Rasch. Oxon: Routledge.

- Schwarz, Daniel, Lisa Schädel, and Andreas Ladner. 2010. Pre-Election Positions and Voting Behaviour in Parliament: Consistency among Swiss MPs. *Swiss Political Science Review* 16 (3):533-564.
- Sciarini, Pascal. 2007. The Decision-Making Process. In *Handbook of Swiss Politics*, edited by U. Klöti, P. Knoepfel, H. Kriesi, W. Linder, Y. Papadopoulos, and P. Sciarini. Zürich: Neue Zürcher Zeitung Publishing.
- Shugart, Matthew S., Melody E. Valdini, and Kati Suominen. 2005. Looking for Locals: Voter Information Demands and Personal Vote Earning Attributes of Legislators under Proportional Representation. *American Journal of Political Science* 49 (2):437-49.
- Sieberer, Ulrich. 2006. Party Unity in Parliamentary Democracies: A Comparative Analysis. *The Journal of Legislative Studies* 12 (2):150-78.
- Snyder, James M. 1994. Safe Seats, Marginal Seats, and Party Platforms: The Logic of Platform Differentiation. *Economics and Politics* 6 (3):201-13.
- Snyder, James M., and Tim Groseclose. 2000. Estimating Party Influence in Congressional Roll-call Voting. *American Journal of Political Science* 44 (2):193-211.
- Tavits, Margit. 2009. The Making of Mavericks. *Comparative Political Studies* 42 (6):793-815.
- Thurman, James, and Urs Gasser. 2009. Three Case Studies from Switzerland: Smartvote. Berkman Center Research Publications: Berkman Center for Internet & Society.
- Turner, Julius. 1951. *Party and Constituency: Pressures on Congress*. Baltimore: Johns Hopkins Press.
- Wright, Gerald C., and Brian F. Schaffner. 2002. The Influence of Party: Evidence from the State Legislatures. *American Political Science Review* 96 (2):367-79.



## Comparing Candidates and Citizens in the Ideological Space

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### Introduction<sup>1</sup>

Political philosophers and political scientists alike have long been concerned with the nature of political representation in democracies. Early empirical analyses of the elite-mass relationship (cf. Converse 1964) revealed significant differences between the ideological reasoning of politicians and the public. By the mid 20<sup>th</sup> century, it became generally accepted that the elites and the general public simply think differently about politics (Kinder 1998). The traditional view of elite-mass divergence, however, is challenged in modern democracies. More than ever, politicians and citizens find themselves in a close and interdependent relationship. On the one hand, political leaders must follow public opinion because they aim to get reelected (Stimson 1991). On the other hand, political elites function as opinion leaders (Zaller 1992). This interdependency is assumed to bring politicians and voters closer to each other in terms of ideology and political attitudes.

Given the importance of the democratic ideal, a long tradition of empirical research exists on the elite-mass relationship. In the past decade, for instance, research has focused on two major topics in the field of representation: dynamic representation (Erikson et al. 2002, Stimson et al. 1995) and sub-constituency representation (Bartels 2009, Gilens 2005). These studies suggest that elites adjust their policies in response to shifts in mass political opinion, and that politicians are disproportionately responsive to electoral subgroups composed of highly educated and sophisticated citizens (Adams and Ezrow 2009).

Yet most empirical studies on political representation and the mass-elite relationship rely on different measures of ideology for the elite and for the general public. Whereas citizens' ideology and attitudes are measured by survey responses, the ideology of the political elite is most often

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<sup>1</sup> We would like to thank Marco Steenbergen, Georg Lutz, Thomas Milic, Peter Selb, and two anonymous reviewers for their helpful comments and suggestions. We are also grateful to the participants of the "AK Methoden" conference, Zeppelin Universität, Friedrichshafen, June 2009, and to the participants of the workshop on this special issue, in Neuchatel, October 2009, for useful comments and remarks. Special thanks to Noah Buckley for editing this article.

estimated with their voting behavior in parliament, i.e., by roll call voting data.<sup>2</sup> Other strategies employed to measure value orientations of the political elite are expert interviews (c.f. Hug and Schulz 2007) and media content analysis (c.f. Lachat 2008). It is important to note, however, that all of these approaches to comparing the political views of citizens and politicians are limited in that they are derived from differing data sources (Powell 1982, Highton and Rocca 2005).

Roll call data, for instance, reflect the perceived preferences of MPs based on their voting behavior, but this is not the same as their actual preferences. Party pressure, constituency pressure and the strategic nature of voting may distort these ideological measures (e.g. Clinton et al. 2004b, Cox and McCubbins 2005). Similarly, media content analysis and expert interviews may also be prone to distortion, as they do not control for strategic positioning. Ultimately, if the ideological positions are derived with different methods and data, it is not even assured that the same ideological dimensions are analyzed for both subgroups (Lachat 2008).

One then wishes to compare mass and elite political views using identical data for each group. However, only rarely have researchers had the opportunity to analyze comparable survey data for both politicians and citizens.<sup>3</sup> While the few studies that do this have strengths on an empirical level, their weaknesses lie in the realm of theory. The designs of these analyses are generally descriptive and are not aimed at testing any hypotheses about ideological relationship.<sup>4</sup> In this respect, our analysis will be no exception. Although we embed our analysis in the broader literature on polarization, voting behavior and party and candidate strategies, our primary goal will not be to explain – or test – why Swiss politicians and voters differ ideologically. Rather, we will analyze whether these groups' political views do differ at all, and whether they do so systematically. We will then discuss whether our findings are in line with common theories and similar empirical evidence found in other countries, mainly from the United States and Australia. Hence, our study will not be explanatory, but rather descriptive and exploratory.

Our analysis benefits from the exceptional data gathered in the SELECTS 2007 Survey, where voters *and* candidates were asked identical questions about their political values.<sup>5</sup> We are thereby

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<sup>2</sup> Cf. Kuklinski (1978), Page et al. (1984), Stimson et al. (1995). Poole and Rosenthal (1997), Clinton et al. (2004a).

<sup>3</sup> Thomassen and Schmitt (1997), McAllister (1991), Pierce et al. (1987), McClosky et al. (1960).

<sup>4</sup> This criticism does not apply to analyses using survey responses of politicians and citizens which focus on ideological consistency (cf. Granberg and Holmberg 1996, Jennings 1992). However, ideological consistency is not of primary importance in our study.

<sup>5</sup> Note that these answers do not reveal true preferences perfectly, but are certainly less prone to the above-mentioned distorting sources (party pressure, constituency pressure, and the strategic nature of voting). This makes our measures (derived by surveying MPs) superior to roll call data with regard to the mentioned distortion.



comfortably positioned to compare the ideological views of party elites and party supporters directly and without methodological bias. As we are primarily interested in the ideological positions of the individual candidate and voter, or the mean party candidate and mean party voter, we ignore the fact that electoral competition is based to a large extent on party manifestos and party communication. Along with the preliminary analyses of Lutz (2008) and Schwarz (2007), this study is the first systematic and comprehensive comparison of politicians' and voters' value orientations for Switzerland.

We will focus on three main aspects of the ideological mass-elite relationship that other studies comparing survey responses for both groups have highlighted. First, we will explore whether it is the general public or the political elite that is more polarized or extreme politically (McClosky et al. 1960, McAllister 1991, Lutz 2008). Second, we will analyze ideological congruency between parties, i.e., whether candidates of one party represent the views of their party supporters more closely than candidates of other parties (McAllister 1991, Lutz 2008). Third, we will investigate the phenomenon observed elsewhere wherein successful candidates are ideologically more remote from their party supporters than unsuccessful candidates (Achen 1978, McAllister 1991, Schwartz 2007).

## **Theory**

### *Ideological Polarization*

In his seminal work, Converse (1964, Converse and Pierce 1986) observes that the general public lacks ideological consistency. Recent scholarly research seems to agree that the elite is not only more ideologically consistent than the general public, but also more polarized. As Adams and Merrill (1999: 765) summarize, "One of the most discussed findings from the literature on political representation is that political parties and candidates typically present policy positions that are similar to, but more extreme than, the positions of their party supporters." Furthermore, several studies suggest that elite and mass polarization have been diverging in past decades. Studies consistently show an increasingly polarized US Congress, with party members clustering towards the ideological poles (Hetherington 2009). Evidence that ordinary American citizens have become similarly polarized is, in contrast, less clear. Fiorina et al. (2004) argue that voters only *appear* polarized because the political arena only offers polarized choices, but voters' preferences remain essentially moderate. As a result of increasing elite polarization, however, partisans in the general public are following what are now clearer elite cues to sort themselves into the 'correct' party (Hetherington 2009). Fiorina and Levendusky (2006) term this process that is observed within the mass 'party sorting,' reserving the term 'polarization' exclusively for the political elite.

There are several explanations for the differing polarization levels between the general public and the elite. Rokeach (1973), for instance, posits that it is radicalism that drives an ordinary citizen to become a politician. Since ideologically radical individuals seek to have their views realized in politics, they become politically active and run for office. This self-selection process then results in an elite that is more ideologically polarized than the general public. Similarly, May (1973) argues that party activists tend to take extreme policy positions and, through intraparty nomination processes, these attitudes drive the parties towards the policy positions of activists and away from those of their mass supporters. Finally, Przeworski and Sprague (1987) identify strategic causes of differing polarization, proposing that party elites offer relatively extreme programs in order to change voters' preferences.

The few studies that use survey data for both candidates and voters – as we do – report evidence generally supporting the elitist polarization thesis. McClosky et al. (1960) find that leaders of the two main US parties diverged strongly, but that their followers differed only moderately in their political attitudes. Similarly, McAllister (1991) observes that in Australia, candidates showed considerably more polarization on various political issues than voters. In particular, the conflict between candidates and voters is more severe on the traditional left-right dimension than on the authoritarian-libertarian dimension.

For Switzerland, Lutz (2008) also reports greater polarization among the elite than among the general public. His analysis is based on self-placements of voters and candidates on the left-right continuum. He concludes that candidates from left parties are more leftist than their electorate, while the candidates from right parties are more rightist than their electorate. Lachat (2008), in contrast, compares voters' positions as measured by survey responses with party elites' positions as measured by media content analysis, finding more dispersion on the mass level than on the elite level in the 1999 general Swiss elections: "The CVP and the SP are much closer to one another than are their voters. The same can be said of the liberal parties and the SVP" (Lachat 2008: 151). In light of the findings reported in the studies described above and those of Lutz (2008) that all analyze survey data for both groups, we expect to find a more polarized elite than general public – notwithstanding the contradicting results reported by Lachat (2008).

### *Intra-party Congruency*

The often-replicated finding that parties present policy positions which are more extreme than those of their supporters – i.e., that the political elite is more polarized than the general public – contradicts the implication of the basic proximity voting model (Iversen 1994; Adams and Merrill 1999, Adams et al. 2004). This traditional spatial theory predicts that, all else being equal, candidates

and political parties gain electoral benefits when they moderate their policy positions, thereby approximating the median voter (Downs 1957, Enelow and Hinich 1984). Given the median voter theorem, why should radical or extreme parties compete in elections at all? Or, in other words, why should some parties represent their electorate more adequately than others, resulting in different levels of intra-party congruency?

Recent studies suggest that the logic of spatial theory applies differently to different types of parties (Meguid 2005). Specifically, it is suggested that *niche* parties<sup>6</sup> – namely parties of the extreme left (Communists), the extreme right (radical nationalist parties) or distinct non-centrist parties (the Greens) – do not inevitably enhance their electoral support by presenting moderate programs. Ezrow (2008) argues that in multiparty systems, mainstream parties are generally rewarded for centrism, but that this does not hold for niche parties. On the contrary, as Ezrow demonstrates empirically, niche parties perform significantly better when representing rather radical value orientations.

Similarly, and particularly interestingly for the Swiss case, is the work by Kedar (2005a, 2005b) arguing that a consensual system benefits ideologically extreme parties. In a consensual system, a winning party faces, due to bargaining and compromise after the election, a “watering down” of their policy preferences. It follows then, that in a consensual setting – if voters are both concerned with policy outcomes and aware of these institutional mechanism – they are expected to vote for a party that holds similar but more extreme policy preferences. Kedar (2005b) finds empirical evidence that Swiss citizens do indeed apply such compensational voting strategies.

This line of reasoning is similar to the directional model of voting behavior proposed by Rabinowitz and Macdonald (1989). The directional thesis states that voters support parties that take relatively extreme positions on their side of the issue. A less severe version of this thesis is the representational policy leadership model advanced by Iversen (1994). His “mixed” model includes both proximity and directional components. He demonstrates convincingly that voters tend to prefer politicians who offer clear and intense policy alternatives over politicians who simply “mirror their attitudes.”

To summarize, both the strategic positioning of niche parties and voters’ intentions to support radical parties imply that ideologically extreme parties should have a lesser degree of intra-party congruency than moderate parties. Studies that compare value orientations of the political elite and the general

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<sup>6</sup> According to Meguid (2005: 347 pp.), niche parties differ from mainstream parties in three aspects. First, niche parties reject the traditional class-based orientation of politics, thereby politicizing sets of issues that were previously outside the dimensions of party competition. Second, as these issues do not coincide with existing lines of political division, niche parties appeal to voters that may cross-cut traditional party alignments. Third, niche parties limit their issue appeals, adopting positions only on a restricted set of issues.

public using identical survey items for both groups tend to support this expectation. McAllister (1991) finds that the Australian Labour Party of the 1980s and 1990s show a large ideological gap between its leaders and its supporters. Yet the Labour party was the most successful Australian party of the time, despite or – in line with the theoretical expectations outlined above – *because* of a low degree of intra-party congruency.

For Switzerland, Lutz (2008) also reports differing levels of intra-party congruency. By comparing left-right self-placements of voters and candidates, he finds the largest ideological gap between politicians and supporters among the parties of the left (the Greens and Social Democrats). Specifically, the candidates of these parties are found to be much more leftist than their supporters. Lutz (2008) does observe the mirror image phenomenon on the right side of the ideological spectrum, but to a lesser degree. Candidates of the SVP and the FDP are more rightist than their electorate. Only the centrist party, the CVP, has been found to show a high level of intra-party congruency.

These theories of niche party strategies (Ezrow 2008, Meguid 2005) and compensational voting (Kedar 2005) imply that we are likely to observe differing levels of party congruency in the Swiss multiparty system. Given the results reported by Lutz (2008), we expect to find the lowest degree of intra-party congruency among the Greens, as it is both ideologically more extreme and a niche party. The SVP and SP do not count as niche parties, but still may, due to compensational voting, have a significant degree of incongruence. Finally, the more centrist parties, the CVP and FDP, are expected to show more congruent value orientations.

### *The Remote But Successful Candidate*

The pattern frequently observed at the party level seems to hold at the individual level as well: Candidates with deviant policy preferences are more likely to get elected than candidates who reflect the political views of their electorate more accurately (Hetherington 2009). Again, how can we explain this rather counter-intuitive phenomenon?

As Carey and Shugart (1995: 417) point out, seats not only have to be allocated to parties, but also to “specific candidates within parties.” Therefore, politicians running for office not only must defeat opponents from other parties but also those from their own party. This means that candidates must stand out during the electoral campaign and seek personal votes. The extent to which candidates have to develop personal reputations distinct from those of their party is considered to be shaped by electoral rules. For example, it is widely accepted that personal reputation is more valuable to

legislative candidates in open list systems than in closed list systems (Carey and Shugart 1995). Open list systems, which allow personal votes, make parties less relevant and create incentives for individualism (Tavits 2009, Shugart et al. 2005).

One strategy for creating personal reputation is to take positions that differ from that of the party (Carey and Shugart 1995: 418). Although it is plausible that candidates, particularly in open list systems such as the Swiss electoral system, have incentives to cultivate and proclaim independent policy preferences, the question remains in which direction they should deviate from their party and electorate. Proximity voting theory implies that successful candidates who are contesting elections will locate themselves near the center of the voter distribution. Yet empirical evidence contradicts the median voter theorem (Merrill and Grofman 1999). Adams et al. (2004: 351) find that candidates for the US Senate benefit when they are perceived as presenting distinctly non-centrist positions that reflected the policy direction of their electorates. This finding supports, again, the directional voting model, which accounts for the relative extremism of candidates' positions in elections.

Yet there may be an even more specific explanation for why successful candidates deviate more drastically from their electorate than unsuccessful candidates. According to Achen (1978), it is mainly incumbents that account for the observed effect. Incumbents are likely to be reelected but, at the same time, they differ more significantly from their supporters in their preferences than do first-time candidates. A study by Sullivan and Uslaner (1978), based on US data, supports Achen's reasoning, as incumbents are found to have a greater probability of winning reelection than their challengers even when the latter are closer to constituency opinion.

McAllister (1991) also holds incumbents accountable for the observed phenomenon of remote but successful candidates. As incumbents often stand for safe seats, they need not rely heavily on their supporters and can better afford to deviate from their median preferences. But in contrast to Achen (1978), McAllister finds empirical support for Australian incumbents holding rather moderate views, i.e., they deviate from their party electorate and the non-incumbent counterparts because they in fact hold rather centrist values. McAllister (1991) hypothesizes that incumbents undergo a socialization process in parliament in which their views generally get moderated.

Results from Schwartz' (2007) study, however, tend to support the directional voting model in general and the incumbency effect as described by Achen (1978) in particular. Schwartz (2007) finds that winning candidates of the last general Swiss elections have distinctively accentuated value preferences. Only SVP candidates' electoral success is found to be independent from ideological positioning. Given the results reported by Schwarz (2007) and the theorized effects of Swiss electoral rules, namely the open list system, we expect to find significant differences between winning and

losing candidates. More specifically, we expect to find winners to be distinctly more radical and remote from their party electorate.

### *The Political Space: The Economic and the Cultural Dimension*

Traditionally, ideology has been conceptualized as a one-dimensional left-right continuum -- like the liberal-conservative continuum in the US -- (cf. Converse 1964, Fuchs and Klingemann 1989). This dimension, often also referred to as the socioeconomic dimension, reflects the economic conflicts within a modern democracy. Specific issues within this struggle are, among others, taxation, wealth redistribution, social security and free economic enterprise. More simply put, this is the conflict between socialist and capitalist ideology (Kitschelt 1994). Contestation on this dimension has predominated in most Western nations in the postwar period (Bartolini and Mair 1990).

With the rise of new challenges to modern democracies, however, a new political dimension has emerged (Flanagan 1987). Kitschelt (1994) has laid out the theoretical foundation for this emerging conflict, terming this additional dimension 'libertarian-authoritarian.' This dimension reflects issues such as minority rights, authority, law and order, civic protests and tradition. Other scholars (Marks et al. 2006) have dubbed this political conflict the GAL-TAN dimension: green/alternative/libertarian (GAL) versus traditionalism/authority/nationalism (TAN). Kriesi and Trechsel (2008), finally, describe the inherent conflict as cultural liberalism versus conservatism.

For Western Europe it seems conventional to rely on such a two-dimensional space (see Kriesi et al. 2008), and it has been shown in several studies that the economic and the cultural dimensions accurately describe the political landscape of Switzerland. These broadly encompassing dimensions have been detected not only in analysis of party positioning in electoral campaigns (Lachat 2008), but also in analysis of the voting behavior of members of the Swiss parliament (Kriesi 2001, Leemann 2008) and in analysis of referendum votes (Hermann and Leuthold 2003).

## **Data and Method**

### *Data*

The data we use in our analysis come from the SELECTS Voter Survey 2007 and the SELECTS Candidate Survey 2007. In these surveys, voters and candidates in the Swiss general elections of 2007 were asked about their political values. As the number of cases is limited at the constituency (cantonal) level, namely the number of elected candidates, we restrict the analysis to the national

level.<sup>7</sup> The sample used for estimation consists of 1,128 unsophisticated, 1,144 sophisticated voters<sup>8</sup> and 1,650 candidates, of which 125 were elected to office. Thirteen items, identical in each survey, are employed to measure the value orientations of voters and politicians (see Table A in the appendix for more details). We use these 13 items to create a two-dimensional political space with an economic and a cultural dimension and to locate voters and candidates within this political space. This procedure allows us to compare the political views of party elites and voters directly.

### *Method*

For the estimation of ideological positions we rely on Bayesian ordinal factor analysis. This is similar to polychoric factor analysis but instead of relying directly on the polychoric correlations, we first estimate the latent dimensions as in an ordered probit model, then connect the different items and finally create the two dimensions. Our measurement model has the usual IRT interpretation and therefore has the advantage of a direct connection to the spatial theory of political behavior (Clinton et al. 2004b). In addition, ordinal IRT elegantly deals with non-binary and non-continuous response data. Instead of working with the observed ordinal measurements, we can estimate the latent and presumably continuous underlying variable and then extract the underlying dimensions based on these latent variables. This produces an estimation procedure that is both fully efficient and—given the assumptions of the model (see section “Estimation”)—unbiased. Because of its closer connection to theory and more general applicability, we rely on Bayesian ordered IRT – despite the fact that it is less well known than polychoric factor analysis.

### *Identification*

Identification is a necessary but not sufficient requirement for estimation and therefore should be the first concern in every quantitative endeavor. This is especially true for ordinal factor analysis with an ordinal item response model since those models are not identifiable by the data alone – additional constraints are needed. Which and how many of these constraints are necessary is a function the dimensionality of the model. In one dimension, the task is relatively simple: one must pick an origin, a metric and a direction. The classical Kennedy-Helms restriction achieves this by fixing

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<sup>7</sup> Possible distortions of this restriction are discussed in the concluding section.

<sup>8</sup> Note that the number of unsophisticated voters in the full SELECTS Voter Survey is significantly larger than number of sophisticated voters (about 60% to 40%). But since we had to drop respondents with missing values on all thirteen value items, we lose a disproportionate number of unsophisticated voters.

the two U.S. legislators at -1 and +1, respectively, thereby choosing the origin (half way between Kennedy and Helms), a metric (the distance between Kennedy and Helms is two) and a direction (Helms is to the right of Kennedy), as in work by Rivers (2003:7).

A popular alternative is to fix a distribution of ideal points, such as standard normal, which results in two independent restrictions: mean equal to zero and standard deviation equal to one. One then must still choose which direction is to the right, but this is necessary only for global identification, not for local identification. However, with more than one dimension, the choice of constraints is more complicated. In a seminal paper, Rivers (2003) resolves this issue and proves both necessary and sufficient conditions for identification of spatial models of arbitrary dimension. More concretely, he showed that in a  $d$  dimensional model, identification can be accomplished by either fixing  $d+1$  points or vectors (i.e., legislators) or by imposing  $d(d+1)$  independent restrictions. In the following, for our  $d=2$  dimensional model (economic left/right versus cultural left/right) for the elected members of the Nationalrat, we achieve *local* identification by applying the following 6 constraints:

- The average ideal points are assumed to be distributed standard normal in both dimensions, which results in 4 independent constraints.
- The item "Same sex marriages" is constrained to load only on the cultural dimension, which gives us one additional constraint.
- The item "Economic re-distribution" is constrained to load only on the economic dimension, which gives us the last constraint needed for local identification.

In addition, we make two additional assumptions to achieve not only local, but global identification:

- The item "Same sex marriages" is constrained to load positively on the social dimension, such that socially liberal legislators locate at the top of the ideological space.
- The item "Economic re-distribution" is constrained to load negatively on the economic dimension, such that economically leftish legislators locate to the left of the ideological space.

Again, these two additional assumptions have no effect on the absolute values of the factor loadings or ideal points; they simply specify which direction is to the left and to the bottom on the two dimensions.



## *Estimation*

Having achieved global identification, we now turn to estimation. The ordinal measurement of our survey data makes it somewhat nonstandard both for item response theory models, which are usually based on binary indicators (yea or nay), and for normal theory factor analysis, which ordinarily uses continuous variables as input. An efficient but biased approach would be to treat the ordinal indicators as continuous, thereby assuming that the difference between ‘agree totally’ and ‘agree somewhat’ is the same as between ‘indifferent’ and ‘disagree somewhat’. An unbiased but highly inefficient solution would be to dichotomize the ordinal measurements and employ a binary item response model. We opt to use an ordered IRT model that also estimates latent dimensions and produces unbiased *and* efficient results. Furthermore, item response theory provides a statistical framework that can be shown to directly reflect the underlying spatial theory of politics.<sup>9</sup>

## **Results**

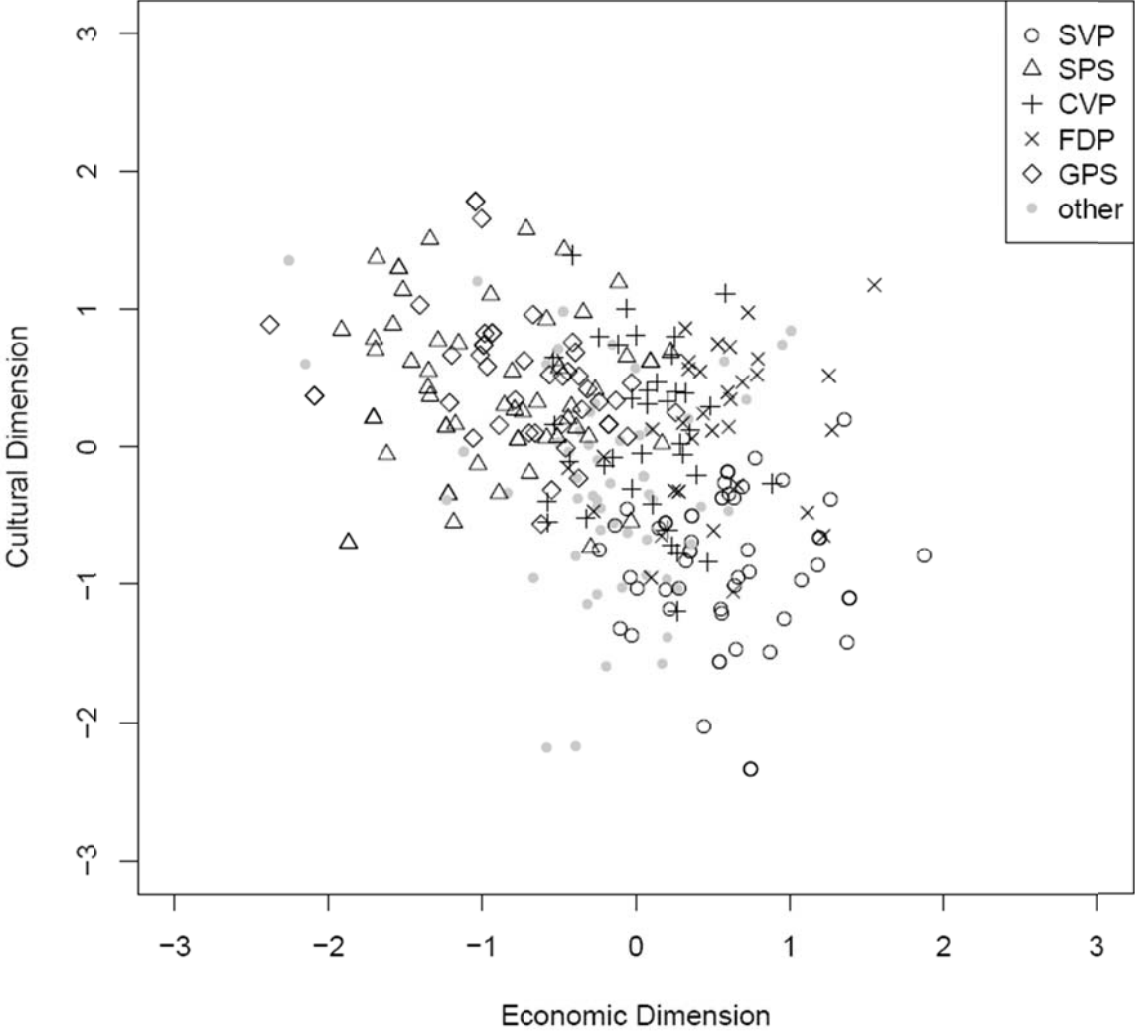
In a first step, we consider the overall picture of the political orientations of Swiss voters and politicians. As can be seen in Figure 1, Swiss politicians are distributed in the political space as expected and as shown in previous scholarly work (Lachat 2008, Schwarz 2007, Kriesi et al. 2006). In the upper-left space we find the so-called left-libertarians, who are economically leftist and culturally liberal. These politicians consist mainly of Social Democrats (SPS) and the Greens (GPS). The center of the political sphere is occupied largely by representatives of the Christian Democrats (CVP), who are moderate on both dimensions. Candidates from the Liberal Party (FDP) are both economically and culturally liberal, whereas the representatives of the Swiss People’s Party (SVP) are both economically and culturally rightist.

In contrast to the pattern found among candidates, the spatial distribution of voters is rather ambiguous (see Figure 2). Although voters for the SPS and the Greens are found predominantly in the upper-left and voters for the SVP in the lower half, the observed pattern is not clear-cut. What can be said about the distribution of all voters, however, is that it concentrates heavily in the center of the political space.

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<sup>9</sup> For further elaboration on this point see the technical appendix and Clinton et al. (2004b: 358pp.).

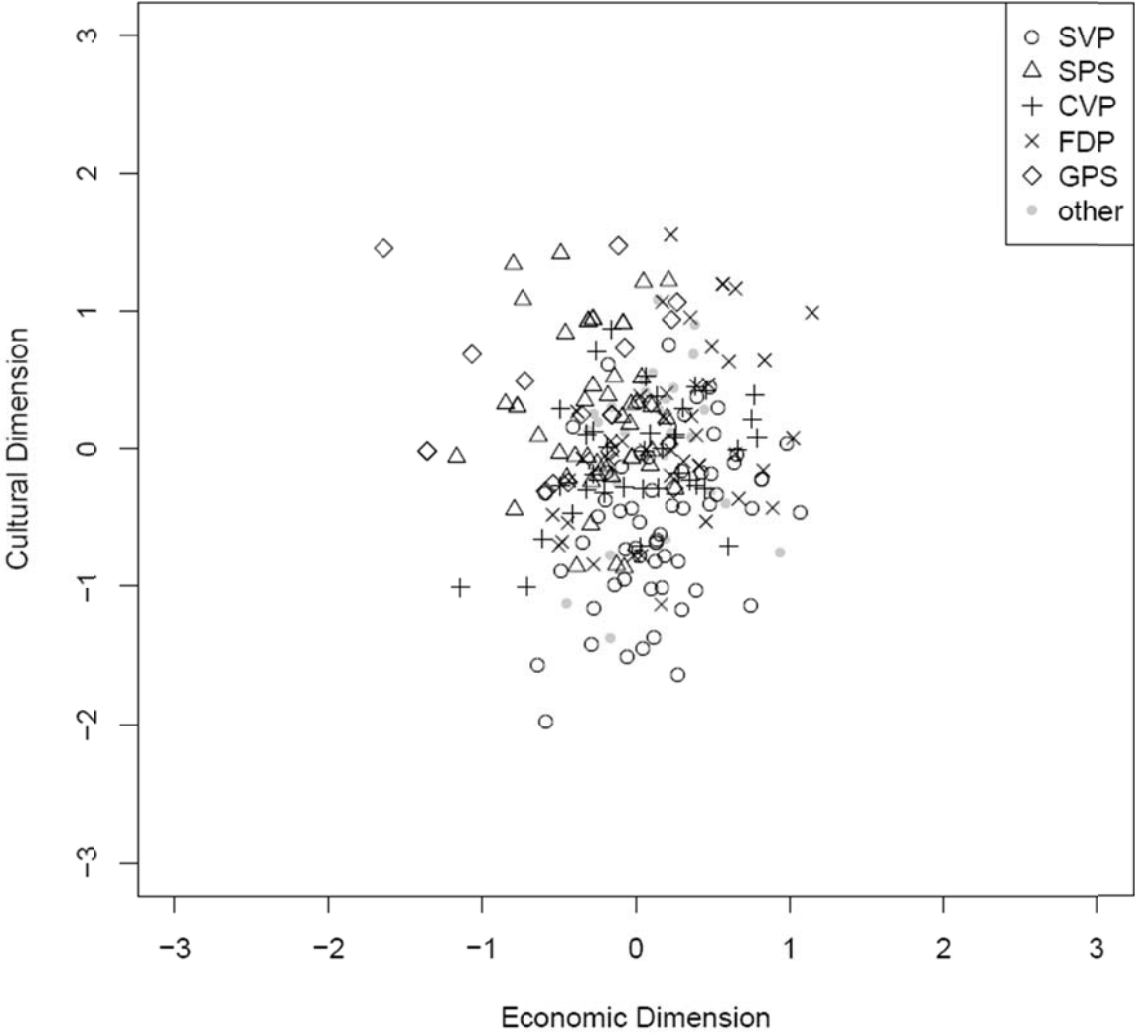
Figure 1. The Political Value Orientations of Candidates by Party



Note. For visual clarity, only 300 candidates (drawn by chance) are displayed.

One can conclude, therefore, that the political values of the elite tend to be more extreme than those of the general public. Furthermore, as the spaces in the lower-left and the upper-right are rather empty, the allocation of the elite's values closely represents the conflict line suggested by Kitschelt (1994), namely the diagonal reaching from the left-libertarian extreme to the right-authoritarian. This finding is in line with results presented by Lachat (2008). He finds that the political space of Swiss party elites in the 1990s tends to converge to one dimension, whereas the values of voters are adequately described only by two dimensions: an economic and a cultural dimension.

Figure 2. The Political Value Orientations of Voters by Party



Note. For visual clarity, only 300 voters (drawn by chance) are displayed.

Of more substantial interest here, however, is variation in the degree of political polarization between politicians and the general public. We measure polarization as the statistical variance of the estimated ideal points separately for each dimension. We find the elite to be more polarized than the electorate on both dimensions (see Table 1). Yet while the difference on the cultural dimension is rather minimal, it is substantial on the economic dimension. On the latter dimension, the variance of political values held by candidates is three times higher than that held by voters. As can be seen in Figure 3, this result is particularly due to the distinct socialist ideology of the representatives of the

Social Democrats on the one extreme and the capitalist ideology of SVP politicians on the other. This finding is in line with McAllister (1991), who observes a larger dispersion on the left-right dimension than on authority issues among Australian politicians and citizens.

Table 1. Polarization among Swiss Voters and Candidates Measured by their Variance

<b>Variance</b>	<b>All voters</b>	<b>Sophisticated Voters</b>	<b>Unsophisticated Voters</b>	<b>All candidates</b>
Economic Dimension	0.20	0.23	0.18	0.58
Cultural Dimension	0.39	0.39	0.40	0.52
Number of observations	2,272	1,144	1,128	1,650

*Note.* 125 of the 1,650 candidates won the election.

However, as Hetherington (2009: 433) and others (cf. Zaller 1992, Converse 1964) note, we would expect that mass preferences will tend to bunch closer to the center than those of elites because of the substantial differences in ideological sophistication between the two groups. To test this expectation, we split up the voters into “sophisticated” and “unsophisticated” voters. As the estimates in Table 1 show, such a distinction does not make any significant difference. On the cultural dimension, the dispersion of sophisticated and unsophisticated voters is equal. On the economic dimension, politically sophisticated citizens are marginally more polarized, but their representatives remain much more dispersed.

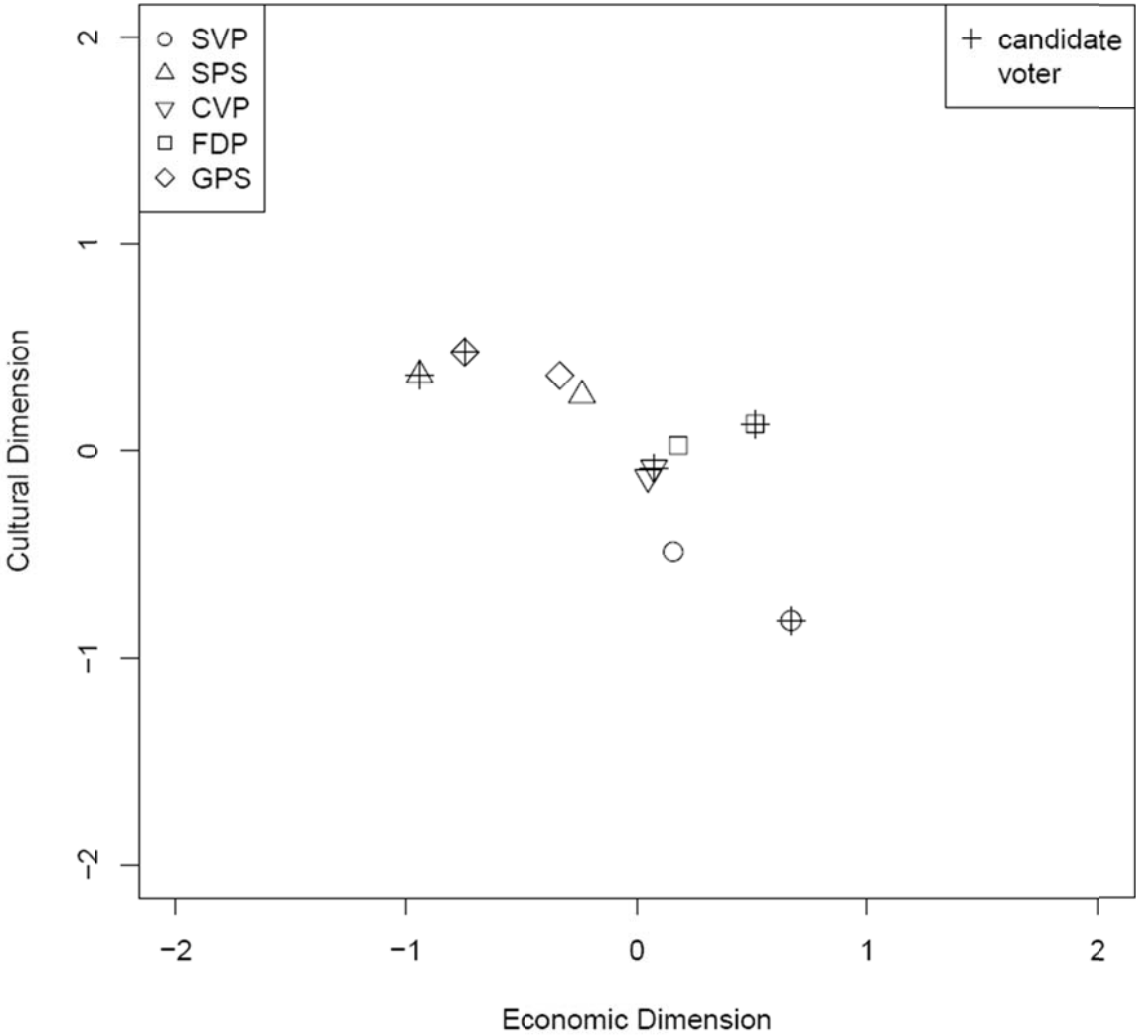
The empirical pattern of polarization presented here thus reflects Fiorina’s (2004) view of an increasingly polarized elite and a moderate general populace. It also confirms results from previous research that compared ideological polarization by employing survey data for both groups (McClosky et al. 1960, McAllister 1991, Lutz 2008).

The second subject we highlight is whether intra-party congruency varies from party to party. We expect to find the lowest degree of intra-party congruency within the Greens, as it is both an ideologically extreme and a niche party. The SVP and SPS are not niche parties, but still may, due to their distinct policy preferences, show a significant degree of incongruency.

Indeed, we do find such varying intra-party congruency levels. As can be seen in Figure 3 (see also Table 2), all parties but the CVP show substantial divergence in ideological dispersion between their leaders and their supporters. The largest gaps are found within the SPS (.71) and the SVP (.61). Their discrepancies are even higher than that of the Greens (.43), which can be regarded as a niche party. In particular, ideological differences between the electorate and their party leaders are mainly

attributable to diverging values on the economic dimension. Representatives of both the left and the right are much more extreme in their socioeconomic views than is their electorate (see Figure 3). These results confirm Lutz’s (2008) finding that representatives of both the Swiss left and right are far more radical than their supporters and are thereby misrepresenting the latter.

Figure 3. The Median Voter and the Median Candidate by Party



It must be noted, however, that the relatively high degree of ideological congruency within the CVP may simply be a result of its location in the center. Since not only CVP voters, but all voters generally tend to be located around the center, the CVP elite is much more likely to represent their voters adequately. Party elites from both the left and the right, on the other hand, are more extreme and

thereby run risk of deviating from their moderate party electorates. Remarkably, this pattern also holds when only sophisticated voters are considered. Although sophisticated voters are consistently closer to their candidates than unsophisticated across all five major parties (see Table 2), the gap between elites and the general populace remains smaller among the parties of the center, notably smallest within the CVP.

Table 2. The Euclidean Distances between Voters and Candidates by Party

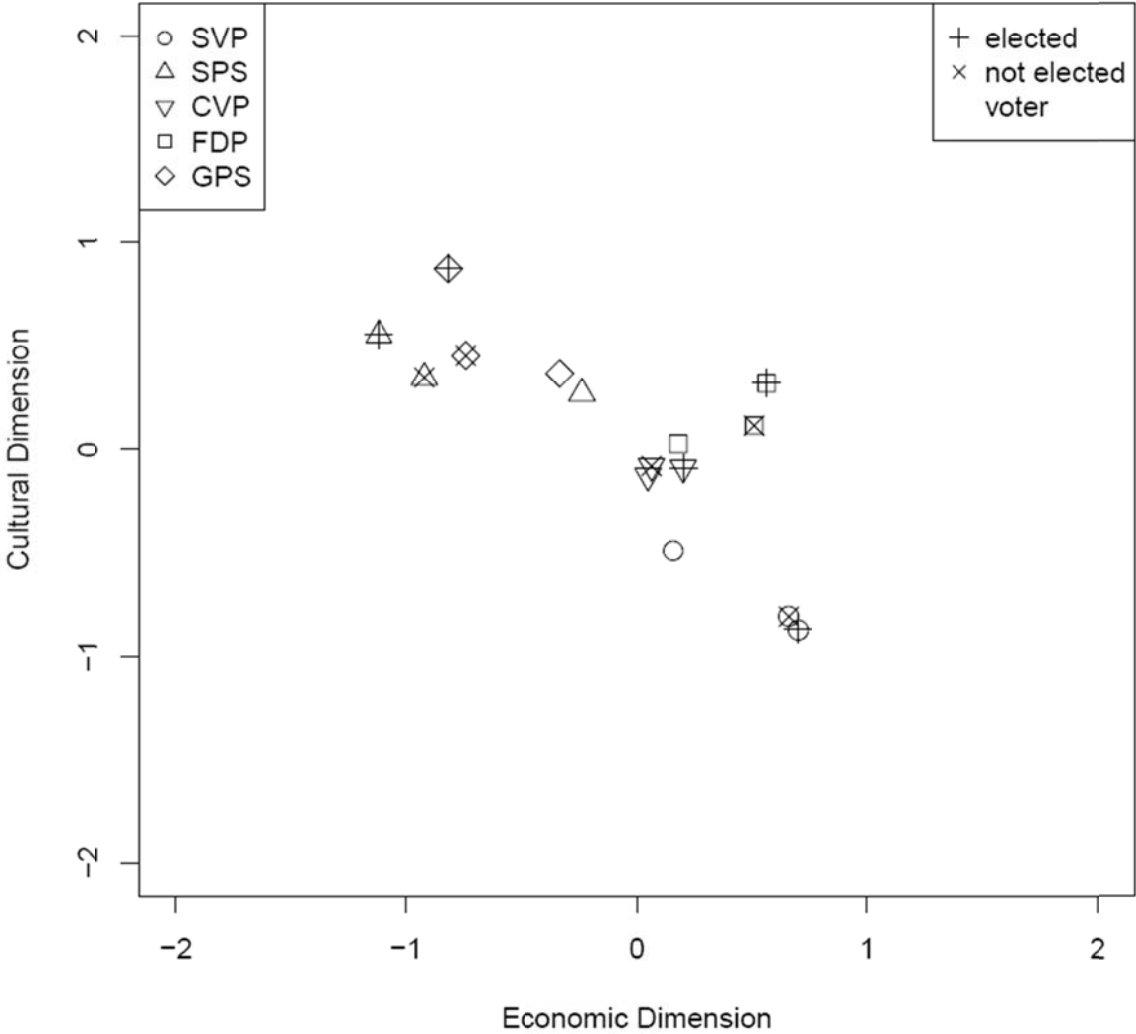
<b>Euclidean distance</b>	<b>FDP</b>	<b>CVP</b>	<b>SP</b>	<b>SVP</b>	<b>Greens</b>
Voters – candidates	0.35	0.05	0.71	0.61	0.43
Sophistic. v. - candidates	0.29	0.04	0.66	0.57	0.39
Unsophistic. v. – candidates	0.45	0.09	0.77	0.64	0.48
Voters - elected candidates	0.48	0.16	0.93	0.67	0.70
Sophistic. v. - elected cand.	0.44	0.15	0.88	0.63	0.69
Unsophistic. v. - elected cand.	0.57	0.19	0.98	0.70	0.72
Voters - not elected cand.	0.34	0.05	0.69	0.60	0.42
Sophistic. v. - not elected cand.	0.28	0.04	0.64	0.56	0.38
Unsophistic. v. - not elected c.	0.44	0.09	0.75	0.63	0.47

The results concerning intra-party congruency are interesting insofar as they both confirm and contradict previous findings from Australia derived by similar data. In contrast to McAllister (1991), we find no evidence that misrepresentation is characteristic of the left in particular. Rather, all parties with distinct value orientations are prone to ideological incongruency. In line with McAllister (1991), however, we ascertain that the degree of congruency does not correlate with electoral success. On the one hand, the ideological distance between voters for and candidates from the SVP and the Greens are substantial, but these two parties performed well in elections. On the other hand, the SPS underperformed in elections but show a similar voter-candidate gap.

These results challenge traditional spatial voting theory, as parties relatively distant from the preferred position of the electorate are not penalized. On the contrary, and in line with Ezrow (2008), the Greens, as a niche party, are doing well by presenting non-centrist policy preferences. Similarly, the electoral success of the SVP might be explained by their distinct rightist value orientation. Swiss voters may actually vote for an extreme party on their side of the ideological continuum, as they may fear their preferences will be watered down in the Swiss consensual system (Kedar 2005b). We can conclude that the pattern of intraparty congruency found contests the median voter theorem but accords nicely with “mixed” models that include both proximity and directional components (Rabinowitz and Macdonald 1989, Iversen 1994).

Finally, we analyze whether successful candidates' positions differ systematically from the positions held by unsuccessful candidates. More precisely, we examine whether winners are more distant from their electorate than losers, as has been found previously (Achen 1978). It is widely accepted that in open list systems such as the Swiss electoral system, politicians are urged to seek the personal vote (see Carey and Shugart 1995) and benefit from presenting non-centrist policy preferences (Adams et al. 2004). For the Swiss general elections in 2007, Schwarz (2007) finds that, save the SVP, candidates who won their election hold more accentuated value orientations than candidates who did not.

Figure 4. The Median Voter, the Median Elected and the Median Not-Elected Candidate by Party



Our analysis replicates Schwarz' (2007) results (see Figure 4). Across all major parties, winning candidates are found to be more distant from their party electorate than losing candidates. Only within the SVP does electoral success seem to be largely independent of politicians' ideological positioning. In regard to the SPS, FDP and the Greens, the parties with the largest gaps, we note that most of the difference can be attributed to the cultural dimension. Successful candidates from these parties are distinctively culturally liberal. Taking the sophistication level of voters into account does not change the overall pattern (see Table 2). However, we consistently find the closest relationship between sophisticated voters and unsuccessful candidates. This may be explained by the fact that many candidates do not run for elections with serious expectations and often do not even campaign. Rather, they are asked by party officials to place themselves at the disposal of the party in order to complete the party list. Such candidates may not differentiate themselves significantly from politically sophisticated citizens.

Our data also confirm the expectation that successful candidates are more remote from their electorate because they hold distinct non-centrist values. This may be due to incumbent effects (Achen 1978, Sullivan and Uslaner 1978), but our results specifically contest McAllister's (1991) socialization hypothesis. McAllister assumes that incumbents' preferences are moderated in a parliamentary setting, but that they will not be penalized for such a deviation by their electorate. Although we do not test specifically for incumbent effects, our data suggest that successful candidates, and hence very likely incumbents, gain votes by presenting non-centrist preferences (see Adams et al. 2004).

Our findings on the candidate level are similar to those on the party level: radical politicians are more likely to get elected than moderate candidates. This again challenges the median voter theorem (Merrill and Grofman 1999). It appears that in Switzerland, arguably because of its open list system, candidates gain personal votes when presenting distinct positions. Again, in line with the directional voting model, the electorate favors more extreme politicians of their ideological family.

## **Conclusion**

In this descriptive study we analyze whether (1) the Swiss elite or the general public is more ideologically polarized, (2) whether there are varying levels of intra-party congruency, and (3) whether successful candidates are more ideologically remote from their party supporters than unsuccessful candidates. We find that the two-dimensional space (represented by an economic and a cultural dimension) applied in our study closely represents the value orientations of the Swiss electorate and its representatives.



While the Swiss elite shows a clear distributional pattern reaching from the left-libertarian pole to the right-authoritarian (Kitschelt 1994), the picture of the electorate is rather ambiguous. Swiss voters are generally clustered around the center, resulting in much less polarization than among candidates. It has been observed for the United States that this ideological disconnect is largely driven by the growing polarization of representatives. Lacking time series data, we can only speculate on whether this holds true for the Swiss case. However, given the decline of the two centrist parties, the CVP and FDP, in the most recent elections, the divergence in ideological dispersion may well be explained by growing polarization on the elite level rather than by concentration on the voter level.

These diverging levels of polarization are found even when voters' levels of sophistication are taken into account – contrary to our expectations. This undermines the hypothesis that lesser polarization within the electorate can be attributed to ideological inconsistency or indifference (Zaller 1992, Convese 1964). Rather, our data suggest that candidates are more diverse due to the self-selection process of politically radical citizens becoming politicians (Rokeach 1973) or to intra-party socialization and nomination processes (May 1973).

The finding of a moderate general public but polarized elite has direct consequences for intra-party congruence. It follows logically that parties from the left and right, each presenting policy programs of the ideological poles, are likely to represent their electorates relatively poorly. Representatives of the centrist party, the CVP, in contrast, are close to their supporters, mainly because they themselves are located near the center, with the majority of voters. That non-centrist parties are not penalized for such deviances from their electorate can be explained by voting models that include both proximity and directional components (Rabinowitz and Macdonald 1989, Iversen 1994).

The directional model also helps us explain the rather counter-intuitive phenomenon of remote but successful candidates. Apparently, Swiss voters favor candidates who are on the same side of the ideological spectrum but who are also more extreme. The pattern found at both the candidate and party levels contradicts the implication of the basic proximity voting model (see also Iversen 1994, Adams and Merrill 1999, Merrill and Grofman 1999). This model implies that, all else being equal, candidates and political parties receive electoral benefits when they moderate their policy positions and thereby approximate the median voter (Downs 1957, Enelow and Hinich 1984). This is clearly not the case in our analysis.

Although the patterns observed accord nicely with the directional model, it must be noted that our study is not a proper test of this model. Nevertheless, we believe that in this case the theory of directional voting behavior is more compelling than theories of strategic behavior, as the former focuses on voters while the latter focus on the strategies of parties and candidates. As we employ

anonymous survey data for both the general public and the elite, we doubt the existence of any party or personal strategy behind candidates' responses in the survey. Hence, our results are better explained by directional voting than by strategic positioning of niche parties (Ezrow 2008) or personal vote seeking (Carey and Shugart 1995).

Furthermore, our results on all three aspects generally confirm previous findings from international and Swiss studies alike. But we observe, in contrast to Lachat (2008), that the Swiss elite is more polarized than the electorate. To be fair, Lachat (2008) finds this pattern only for the 1995 elections and not for the 1999 elections, so the difference may merely constitute a period effect. However, there may be also methodological reasons for the contradictory results, as Lachat derived party elite preferences from media content analysis. As our data are derived from surveys for both groups, we can notably preclude biases from party pressure or strategic voting behavior – biases that are known to be found in other sources, specifically in roll call data (Clinton et al. 2004b, Cox and McCubbins 2005).

In order to derive theory-based expectations for the empirical part of our study, we also discuss some institutional factors peculiar to the Swiss electoral system. For instance, we argue that the multi-party and consensual system (Ezrow 2008, Kedar 2005b) in Switzerland may benefit parties at the ideological poles, resulting in a lower level of congruency within the parties on the left and the right. Likewise, we hypothesize that in the Swiss open-list system, candidates are expected to represent positions that are independent of the party position in order to seek personal votes (Carey and Shugart 1995, Tavits 2009). Indeed, we find empirical evidence for these lines of reasoning. However, the same results have been found in other countries with different institutional settings (Achen 1978, McAllister 1991). Although these studies are not directly comparable with our analysis, we find no evidence that the mass-elite relationship is shaped by country-specific institutional factors. For instance, ideologically deviant candidates in the Swiss proportional voting system are also more likely to get elected as deviant candidates running for US Congress in that first-past-the-post system. And in regard to ideological polarization, we find a considerable elite-mass gap as observed in other countries, despite the presence of considered egalitarian institutions such as the “semi-professional” parliament (*Milizsystem*) and direct-democratic instruments.

Finally, we point out a limitation of our study. Due to the small number of cases at the constituency (cantonal) level, namely that of the elected candidates, we have restricted our analysis to the national level. However, as many scholars have noted (cf. Miller and Stokes 1963, Herrera et al. 1992), it may be crucial to analyze voters' and politicians' preferences on the constituency level. First, it may be particularly true for the Swiss federal system that national parties vary substantially from constituency to constituency. Second, candidates seek not only to gain votes from their party

supporters, but from all voters in their constituency. As we cannot control for such constituency effects, we cannot preclude bias concerning our findings. For example, it may be possible that the differing levels of ideological polarization between the elite and the general public may be smaller on the cantonal level than on the national level. Similarly, a successful candidate may significantly deviate from the voter mean of the national sample but only marginally from the voter mean of her or his constituency. Taking constituency effects into account when comparing value orientations of the elites and the general public is an important challenge left for future research.

## References

- Achen, C. H. (1978). Measuring Representation. *American Journal of Political Science* 22(3): 475-510.
- Adams, J., Bishin, B. G. and J.K. Dow (2004). Representation in Congressional Campaigns: Evidence for Discounting/Directional Voting in US Senate Elections. *The Journal of Politics* 66(02): 348-373.
- Adams, J. and L. Ezrow (2009). Who Do European Parties Represent? How Western European Parties Represent the Policy Preferences of Opinion Leaders. *The Journal of Politics* 71(1): 206-223.
- Adams, J. and S. Merrill (1999). Modeling Party Strategies and Policy Representation in Multiparty Elections: Why are Strategies So Extreme? *American Journal of Political Science* 43(3): 765-791.
- Bartels, Larry (2009). Economic Inequality and Political Representation. In: L. Jacobs and D. King (eds.), *The Unsustainable American State*. Oxford University Press (167-196).
- Bartolini, Stefano und Peter Mair (1990), Identity, Competition, and Electoral Availability. The Stabilisation of European Electorates 1885-1985. Cambridge: Cambridge University Press.
- Carey, J. M. and M. S. Shugart (1995). Incentives to Cultivate a Personal Vote: A Rank Ordering of Electoral Formulas. *Electoral Studies* 14(4): 417-439.
- Clinton, J., Jackman, S. and D. Rivers (2004a). "The Most Liberal Senator"? Analyzing and Interpreting Congressional Roll Calls. *PS: Political Science and Politics* 37(04): 805-811.
- Clinton, J., Jackman, S. and D. Rivers (2004b). The Statistical Analysis of Roll Call Data. *American Political Science Review* 98(02): 355-370.
- Converse, P. E. (1964). The Nature of Belief Systems in Mass Politics. In: Apter, D. (ed.), *Ideology and Discontent*. New York: Free Press (206-261).
- Converse, P. E. and R. Pierce (1986). *Political Representation in France*. Harvard University Press.
- Cowles, M. K. (1996). Accelerating Monte Carlo Markov Chain Convergence for Cumulative-Link Generalized Linear Models. *Statistics and Computing* 6(2): 101-111.
- Cox, G. W. and M. D. McCubbins (2005). *Setting the Agenda: Responsible Party Government in the US House of Representatives*. Cambridge University Press.
- Downs, A. (1957). *An Economic Theory of Democracy*. New York: Harper and Row.
- Enelow, J. M. and M. J. Hinich (1984). *The Spatial Theory of Voting: An Introduction*. Cambridge University Press.
- Erikson, R., MacKuen, M. and J. Stimson. 2002. *The Macro Polity*. Cambridge: Cambridge University Press.
- Ezrow, L. (2008). Research Note: On the Inverse Relationship between Votes and Proximity for Niche Parties. *European Journal of Political Research* 47(2): 206-220.
- Fiorina, M. P., Abrams, S. J. and J. C. Pope (2004). *Culture war? The Myth of a Polarized America*. New York: Pearson Longman.
- Fiorina, M. P. and M. S. Levendusky (2006). Disconnected: The Political Class versus the People. In: P. S. Nivola and D. W. Brady (eds.), *Red and Blue Nation? Characteristics and Causes of America's Polarized Politics*. Washington: Brookings Institution Press (95-110).
- Fuchs, D. and H. D. Klingemann (1989). The Left-Right Schema. In: M. K. Jennings and J. W. Van Deth (eds.) *Continuities in Political Action. A Longitudinal Study of Political Orientations in Three Western Democracies*. Berlin De Gruyter (203-234).
- Gilens, M. (2005). Inequality and Democratic Responsiveness. *Public Opinion Quarterly* 69 (5): 778-96.
- Granberg, D. and S. Holmberg (1996). Attitude Constraint and Stability among Elite and Mass in Sweden. *European Journal of Political Research*, 29(1): 59-72.
- Hermann, M. and H. Leuthold, (2003). *Atlas der politischen Landschaften: ein weltanschauliches Porträt der Schweiz*. vdf Hochschulverlag AG.
- Herrera, C. L., Herrera, R. and E. Smith (1992). Public Opinion and Congressional Representation. *Public Opinion Quarterly* 56(2): 185.
- Hetherington, M. J. (2009). Review Article: Putting Polarization in Perspective. *British Journal of Political Science* 39(02): 413-448.

- Highton, B. and M. S. Rocca (2005). Beyond the Roll-Call Arena: The Determinants of Position Taking in Congress. *Political Research Quarterly* 58(2) 303-316.
- Hug, S. and T. Schulz (2005). Using Mass Survey Data to Infer Political Positions. *European Union Politics* 6(3), 339-352.
- Iversen, T. (1994). Political Leadership and Representation in West European Democracies: A Test of three Models of Voting. *American Journal of Political Science* 38(1): 45-74.
- Jennings, M. (1992). Ideological Thinking among Mass Publics and Political Elites. *Public Opinion Quarterly* 56(4): 419-441.
- Johnson, V.E. and J.H. Albert (1999). *Ordinal Data Modeling*. Heidelberg: Springer.
- Kedar, O. (2005a). When Moderate Voters Prefer Extreme Parties: Policy Balancing in Parliamentary Elections. *American Political Science Review* 99(2): 185-199.
- Kedar, O. (2005b). How Diffusion of Power in Parliaments Affects Voter Choice. *Political Analysis* 13(4): 410-429.
- Kinder, D. R. (1998). Opinion and Action in the Realm of Politics. In: D. T. Gilbert, S. T. Fiske and G. Lindzey (eds.), *The handbook of social psychology* (Vol. 4). New York: McGraw-Hill (778-867).
- Kitschelt, H. (1994). *The Transformation of European Social Democracy*: Cambridge University Press.
- Kriesi, H. (2001). The Federal Parliament: The Limits of Institutional Reform. *West European Politics* 24(2): 59-76.
- Kriesi, H., Grande, E., Lachat, R., Dolezal, M., Bornschieer, S. and T. Frey (2006). Globalization and the Transformation of the National Political Space: Six European Countries Compared. *European Journal of Political Research* 45(6): 921-956.
- Kriesi, H. and A. H. Trechsel (2008). *The Politics of Switzerland: Continuity and Change in a Consensus Democracy*: Cambridge University Press.
- Kuklinski, J. H. (1978). Representativeness and Elections: A Policy Analysis. *The American Political Science Review* 72(1): 165-177.
- Lachat, R. (2008). Switzerland: Another Case of Transformation Driven by an Established Party. In: H. Kriesi, Grande, E., Lachat, R., Dolezal, M., Bornschieer S., T. Frey (eds.), *West European Politics in the Age of Globalization*. Cambridge University Press (130-153).
- Leemann, Lucas. 2008. Catch Me If You Can Recovering Sophisticated Voting in the Lower House of Switzerland. Master thesis, University of Bern.
- Lutz, G. (2008). *Eidgenössische Wahlen 2007. Wahlteilnahme und Wahlentscheid*. Lausanne: Selects - FORS.
- Lynch, S. M. (2007). *Introduction to Applied Bayesian Statistics and Estimation for Social Scientists*. Heidelberg: Springer.
- Marks, G., Hooghe, L., Nelson M. and Erica Edwards (2006). Party Competition and European Integration in the East and West: Different Structure, Same Causality. *Comparative Political Studies* 39 (2): 155-175.
- Martin, A. D., Quinn, K. M. and J. H. Park (2005). MCMCpack: Markov Chain Monte Carlo (MCMC) Package.
- May, J. D. (1973). Opinion Structures of Political Parties: The Law of Curvilinear Disparity. *Political Studies* 21(2): 135-151.
- McAllister, I. (1991). Party Elites, Voters and Political Attitudes: Testing three Explanations for Mass-Elite Differences. *Canadian Journal of Political Science/Revue canadienne de science politique* 24(2): 237-268.
- McClosky, H., Hoffmann, P. J. and R. O'Hara (1960). Issue Conflict and Consensus among Party Leaders and Followers. *The American Political Science Review* 54(2): 406-427.
- Meguid, B. M. (2005). Competition between Unequals: The role of Mainstream Party Strategy in Niche Party Success. *American Political Science Review* 99(03): 347-359.
- Merrill, S. and B. Grofman (1999). *A Unified Theory of Voting: Directional and Proximity Models*. Cambridge: Cambridge University Press.
- Miller, W. E. and D. E. Stokes (1963). Constituency Influence in Congress. *The American Political Science Review* 57(1): 45-56.

- Page, B. I., Shapiro, R. Y., Gronke, P. W. and R. M. Rosenberg (1984). Constituency, Party, and Representation in Congress. *Public Opinion Quarterly* 48(4): 741-756.
- Pierce, J. C., Lovirch, N. P., Tsurutani, T. and T. Abe (1987). Environmental Belief Systems among Japanese and American Elites and Publics. *Political Behavior* 9(2): 139-159.
- Poole, K. T. and H. Rosenthal (1997). *Congress: A Political-Economic History of Roll Call Voting*. Oxford University Press.
- Powell, L. W. (1982). Issue Representation in Congress. *The Journal of Politics* 44(3): 658-678.
- Przeworski, A., and J. Sprague (1986). *Paper Stones: A History of Electoral Socialism*. Chicago: University of Chicago Press.
- Quinn, K. M. (2004). Bayesian Factor Analysis for Mixed Ordinal and Continuous Responses. *Political Analysis* 12(4): 338-353.
- Rabinowitz, G. and S. E. Macdonald (1989). A Directional Theory of Issue Voting. *The American Political Science Review* 83(1): 93-121.
- Rivers, D. (2003). Identification of Multidimensional Spatial Voting Models. *Unpublished Manuscript. Stanford University*.
- Rokeach, M. (1979). *Understanding Human Values: Individual and Societal*. New York: The Free Press.
- Schwarz, D. (2007). Wo sich der neugewählte Nationalrat politisch positioniert. Gewählte und nicht gewählte Kandidierende im Vergleich. *Neue Zürcher Zeitung* 247: 17.
- Shugart, M. S., Valdini, M. E. and K. Suominen (2005). Looking for Locals: Voter Information Demands and Personal Vote-Earning Attributes of Legislators under Proportional Representation. *American Journal of Political Science* 49(2): 437-449.
- Stimson, J. A. (1991). *Public Opinion in America: Moods, Cycles, and Swings*. Westview Press.
- Stimson, J., MacKuen, M. and R. Erikson (1995). Dynamic Representation. *American Political Science Review* 89 (3): 543-65.
- Thomasson J. and H. Schmitt (1997). Policy Representation. *European Journal of Political Research* 32: 165-184.
- Sullivan, J. L. and E. M. Uslaner (1978). Congressional Behavior and Electoral Marginality. *American Journal of Political Science* 22(3): 536-553.
- Tavits, M. (2009). The Making of Mavericks: Local Loyalties and Party Defection. *Comparative Political Studies* 42(6): 793.
- Treier, S. and S. Jackman (2008). Democracy as a latent variable. *American Journal of Political Science* 52(1): 208.
- Zaller, J. (1992). *The Nature and Origins of Mass Opinion*: Cambridge University Press.

## Technical Appendix

This appendix specifies the exact statistical model used in this paper. Readers familiar with the two-parameter item response model will find many similarities between that model and the model we employ. We must introduce some additional notation (partly following Quinn 2004). Let  $j=1, \dots, J$  index response variables and  $i=1, \dots, N$  index observations. Let  $\mathbf{X}$  denote the  $N \times J$  matrix of observed responses. The observed variable  $x_{ij}$  is ordinal with  $c = 1, \dots, 5$  categories for all variables in  $\mathbf{X}$ . The values of the elements of  $\mathbf{X}$  are assumed to be determined by a  $N \times J$  matrix  $\mathbf{X}^*$  of latent variables and a series of cutpoints  $\gamma_{cj}$ , where the first element  $\gamma_{1j}$  is normalized to zero for all  $j$ . The latent variables  $\mathbf{X}^*$  are assumed to be generated by the following normal-linear model:

$$x_i^* = \Lambda \phi_i + \alpha + \varepsilon_i \text{ where } \varepsilon_i \sim N(0,1)$$

where  $x_i^*$  is the  $J$ -vector of latent variables specific to observation  $i$ ,  $\Lambda$  is the  $J \times d$  matrix of factor loadings,  $\phi_i$  is the  $d$ -vector of latent ideal points, and  $\alpha$  is the  $J$ -vector of item difficulty parameters. The probability that the  $j$ th variable in observation  $i$  takes the value  $c$  is therefore the difference:

$$\Phi(\gamma_{ic} - \Lambda_j' \phi_i - \alpha_j) - \Phi(\gamma_{i(c-1)} - \Lambda_j' \phi_i - \alpha_j)$$

where  $\Phi(\bullet)$  is the standard normal CDF. Hence, this model is similar to the standard ordinal probit model in the same way that the two-parameter IRT model can be thought of as a special case of the binary logit model.

Our mode of inference is Bayesian. To complete our model specification, we must choose priors for all unknown parameters. Following Martin and Quinn (2005), we assume independent and conjugate priors for each element of  $\Lambda$  and each  $\phi_i$ . More specifically, we use the following fairly non-informative priors:

$$\Lambda_{jd} \sim N(0,2) \quad j=1, \dots, J, \quad d=1,2$$

$$\phi_{id} \sim N(0,1) \quad i=1, \dots, N, \quad d=1,2$$

$$\alpha_j \sim N(0,2) \quad j=1, \dots, J$$

where  $N(\bullet,2)$  indicates a Normal distribution with a variance, not precision, of 2. The program we use for estimation is part of the freely available *R* package MCMCpack (Martin and Quinn 2005) that implements the Metropolis-Hastings within Gibbs algorithm by Cowles (1996). The Cowles algorithm is well suited for ordinal probit models because the Metropolis-Hastings step protects the variance of the  $\gamma$ s to shrink towards zero, thereby leading to slow mixing of the chain (see e.g. Lynch 2007 for a gentle introduction). We run a single chain for 100'000 iterations, discarding the first 50'000 as burn-

in. Thinning by a factor of 100 to save memory space, we end up with 500 posterior draws for each parameter. None of the usual tests - Geweke, Raftery and Lewis, Heidelberger and Welch, and graphical diagnostics - showed any signs of non-convergence.

Although the assumption that the ideological space for both voters and candidates is two-dimensional is primarily theoretically motivated, we check its empirical appropriateness extensively. We use maximum-likelihood based factor analysis for continuous variables as a quick approximation and obtain the following (rotated) eigenvalues for the first six dimensions: elected candidates: 2.6, 2.2, 1.2, 0.9, .2, .1.; unsuccessful candidates: 1.9, 1.4, 1.3, .9, .03, .03; voters: 1.3, 1.2, .8, .6, .08. This generally indicates an elbow-shaped drop after the second eigenvalue, thereby lending empirical support to the theoretical assumption of a two-dimensional space for both voters and candidates.

Since the interest of this paper lies in the ideal point of political candidates and their constituency, we omit the discussion of the estimates for the item difficulty parameter, item discrimination parameters and factor loadings for the economic and cultural dimension, which are not of primary relevance here, but simply refer the interested reader to Table B in the appendix.



## Appendix

Table A. Question Wording of the Items

Item	Wording
Immigrant customs	Immigrants should be required to adjust to the customs of Switzerland
Free economy	Politics should abstain from intervening in the economy
Environment protection	Stronger measures should be taken to protect the environment
Same sex marriages	Same sex marriages should be approved by law
Stiff sentences	People who break the law should be given stiffer sentences
Social security	Providing a stable network of social security should be the prime goal of govern
Economic re-distribution	Income and wealth should be redistributed towards ordinary people
Democracy reform	Our democracy needs serious reform
Immigrants for economy	Immigrants are good for the Swiss economy
Abortion	Women should be free to decide on matters of abortion
War on terror	Switzerland should provide military assistance to the "war" on terror
Torturing prisoners	Torturing a prisoner is never justified even if it might prevent a terrorist attack
Open economy	The ongoing opening of the economies is for the good of all

Table B. Results of the Factor Analysis / Item Response Model

Item	Negative item difficulty	Factor loading economic dimension	Factor loading cultural dimension
Immigrant customs	2.63	0.75	-1.12
Free economy	0.77	1.15	0.14
Environment protection	3.85	-1.96	0.95
Same sex marriages	0.86	0.00	0.99
Stiff sentences	2.81	0.83	-1.46
Social security	2.15	-1.20	-0.29
Economic re-distribution	1.44	-2.13	0.00
Democracy reform	1.03	-0.20	0.56
Immigrants for economy	2.84	-0.64	0.78
Abortion	1.30	-0.74	0.45
War on terror	1.09	0.29	-0.07
Torturing prisoners	2.11	-0.06	1.04
Open economy	1.56	0.60	0.62

*Note.* The first row of parameters can be interpreted as (negative) item difficulty similar to standard IRT models. The second row shows the factor loadings / item discrimination parameters on the economic dimension, the third row the factor loadings / item discrimination parameters on the cultural dimension. The fourth coefficient of the second row and the seventh row of the third coefficient are set to zero by assumption.



## **Selbständigkeitserklärung**

Ich erkläre hiermit, dass ich diese Arbeit selbständig verfasst und keine anderen als die angegebenen Quellen benutzt habe. Alle Koautorenschaften sowie alle Stellen, die wörtlich oder sinngemäss aus Quellen entnommen wurden, habe ich als solche gekennzeichnet. Mir ist bekannt, dass andernfalls der Senat gemäss Artikel 36 Absatz 1 Buchstabe o des Gesetzes vom 5. September 1996 über die Universität zum Entzug des aufgrund dieser Arbeit verliehenen Titels berechtigt ist.

Bern, den 16. Februar 2011

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