The Strategy of Recorded Voting in the European Parliament (StREP)

Excellence

State of the art, knowledge needs and project objective

In the retrospective account of democracy, voters hold their representatives to account by inspecting their record of behaviour, choosing to re-elect if satisfied, replace if not (Healy and Malhotra 2013). Public voting records provide the information voters need to conduct this task, as it allows them to check whether their representatives have voted the way they would have voted themselves. In addition, public voting records allows them to check whether their representatives vote together with the rest of their party, and whether their representatives let other factors than party position guide their voting behaviour, such as regional interests or business communities. As a result, legislators, as well as their party leaders, care about the public voting record. They care about behaviour on public votes, but also about which votes are recorded. While there is a large literature on the former (Carey 2009, Carroll and Poole 2014), the literature on the latter has only recently started to emerge. A key reason for this is that data on secret (or non-public) votes are less easily available (Saalfeld 1995). In the rare cases where individual level behaviour on non-public vote have become available, the records show that voting behaviour on recorded votes differ from behaviour on non-recorded votes (Hug 2010).

Due to the increase in importance of the European Union (EU), and the empowerment of the European Parliament (EP) (Hix and Høyland 2013), there is a rich as sophisticated literature on roll-call voting in the EP (Attina 1990, Brzinski 1995, Hix, Noury and Roland 2007, 2009). Recently, the findings from this literature has met some scepticism, as it has been shown that recorded votes are not representative of all votes in the EP (Carrubba et al. 2006). However, research aiming to measure the magnitude of the potential selection bias have produced mixed results. While Yordanova and Mühlböck (2014) and (Hix, Noury and Roland 2018) dismiss the empirical relevance of a selection bias, Hug (2016) cautions against rushing the conclusions on the matter.

Research on why recording of individual voting decisions are requested in the EP have highlighted two competing logics. First, recording may be requested by party leaders that want to ensure that their own members follow the voting instructions issued (Carrubba, Gabel and Hug 2008). Second, votes may be requested so that representatives can use votes to signal to the electorate or other interested actors that they are the ones that look after their interests in parliament (Finke 2015, Thierse 2016). Unfortunately, in this literature, there is often a considerable conceptional leap between the hypotheses formulated and the statistical models employed to test these hypotheses.

What is missing is a unified account of why public votes are requested and how it affects behaviour. Such an account must explain how, and under which conditions, requesting public votes affects voting behaviour and outcomes of votes. Because the decision to request public votes is strategic, accounts that fail to take strategy seriously theoretically and empirically remain incomplete. Such accounts risk painting a misleading picture of behaviour in the European Parliament. Given that recorded votes form the basis for both individual measures of ideological placement (NOMINATE-scores) as well as political group and national party unity it is unclear what we can learn from such measures before we know to what extent differences in observed behaviour are the result of strategic considerations. Only with this knowledge in hand, can we properly interpret what the observed pattern means for our assessment of dimensions of political contestation (Hix, Noury and Roland 2006), the powers of the political groups (Hix, Noury and Roland 2005) and the power of the EP relative to the other EU institutions (Hagemann and Høyland 2010). As such, this knowledge is a prerequisite for an empirical based assessment of the functioning of EU democracy, and the so-called democratic deficit, and how the EU should be reformed (Crombez 2003, Føllesdal and Hix 2006, Majone 2000, Moravcsik 2002).

The objective of The Strategy of Recorded Voting in the European Parliament (**StREP**) is to provide a comprehensive and unified account of the decision to request public votes and the consequences thereof for observed behaviour. To achieve the overall objective, the project extends the state of the art in four directions.

First, **StREP** develops an extensive database of MEP behaviour by extending our existing automated database on MEPs https://nabu.usit.uio.no/sv/isv/ (Høyland, Sircar and Hix 2009) to cover all MEPs' activities in the Parliament, both in committees and in the plenary. This will be made available as a continuously and automatically updated service hosted by the University of Oslo along similar lines as Høyland, Sircar and Hix (2009). The database will, unlike the official EP webpages and services such as votewatch.eu, cater to the need of EU scholars, rather than the general public at large.

Second, **StREP** develops theoretically driven statistical models for incorporating strategic considerations that feature into political group leaders' roll call request utility, drawing upon, the quantal response equilibrium framework to better also account for non-strategic aspects featuring in observational data (Goeree, Holt and Palfrey 2016).

Third, drawing on the above, **StREP** will develop item response theory models that incorporate the strategic request of roll call votes (Clinton and Meriowitz 2001, 2003, Clinton, Jackman and Rivers 2004, Clinton 2007, Høyland 2010, Hug 2016).

Fourth, drawing upon the above, **StREP** will provide MEP ideal-point estimates that account for strategic behaviour and contrast these with standard ideal point estimates, thereby provide an empirical assessment of bias in ideal points resulting from ignoring strategic behaviour of political group leadership. This will allow us to assess how, and to what extent, strategic roll call requests matter for politics in the European Parliament, thereby providing a reassessment of power of political groups, and patterns of cooperation and competition between these groups.

In sum, this will improve our general understanding of MEPs behaviour in the EP.

Novelty and ambition

The novelty of **StREP** is threefold. First, we provide a comprehensive and automatically updatable database covering all activities in the European Parliament, both plenary and in committees. Until now, there has been little overlap between research on EP committees and EP plenary activities. The relationship between the two have been largely uncovered (see Hix and Høyland 2013 for a review of the litterature). The database will facilitate the integration of the research on behavior on committee and in the plenary into one coherent research program. The resulting book aims to lay the foundation for a new research agenda for the study of behavior in the European Parliament. This new agenda will emphasize a coherent theoretical foundation that takes strategy seriously and an empirical strategy that allows for direct testing of the empirical implications from the theoretical framework, thereby providing a theoretically driven, empirically based, account of behavior in the EP. The framework presented will be of relevance to legislative scholars in general, as selective requesting of public votes is a common feature across legislatures (Hug, Wegmann and Wuest 2015).

Second, most research on politics in the European Parliament (EP) is empirically highly sophisticated, while the theoretical foundations are less developed (for an exception, see Carrubba, Gabel and Hug 2008), oftentimes an informal collection of existing arguments in the literature or implications from theoretical models developed to fit other political systems such as the US congress (Yordanova 2011). In contrast, **StREP** develops the theoretical models from first principles and connect the theoretical predictions to the empirical models directly via distributional assumptions incorporated into the theoretical framework. As such, the empirical results will speak directly to the theoretical propositions of our models and set a new standard for theoretical rigor in studies on the EP.

Third, **StREP** develops the methodological tools to estimate simultaneous move games on observational data. Given the impact of the statistical backward induction approach promoted for sequential games (Bas, Signorino and Walker 2007, Signorino 1999, Signorino and Yilmaz 2003, Signorino and Kenkel 2015), advancements towards an accessible framework for assessing the empirical implications from simultaneous move games can have far reaching and lasting impact on the discipline. The statistical backward induction approach for sequential move games have seen important contributions in the EU literature (König and Mäder 2014). The most direct impact of the research is that it will provide a

theoretically rigorous assessment of why roll calls are requested in the EP. This will in turn allow us to develop models of voting in the EP that take the selection stage into account, drawing upon existing ideal-point models (Clinton, Jackman and Rivers 2004, Høyland 2010, Hug 2016). The results from these models may call for a reassessment of what we think we know about MEPs' voting behaviour on the basis of models that do not take the selection stage into account (Hug 2010).

Research questions and hypotheses, theoretical approach and methodology

The standard approach of testing implications of strategic models empirically is to derive comparative statics given an appropriate solution concept such as Nash equilibrium and subject these implications to empirical tests (Carrubba, Yuen and Zorn 2007). This approach has the clear advantage of offering precise predictions as a function of some threshold. However, when subjected to such games in a laboratory setting, respondents rarely act fully in line with the predictions from models using classic game-theoretic solution concepts. Humans may err. To account for this, McKelvey and Palfrey (1995), (1998) developed Quantal Response Equilibrium, a solution concept that allows for the possibility that actors may make mistakes. Observing that most actors are more likely to make small, rather than large mistakes, they propose that the mistakes follow a logistic distribution.

The difference between Nash and Logit Quantal Response Equilibrium (LQRE) predictions is as follows. In the case of the Nash equilibrium, the prediction is sharp. When U(a) < .5, P(a) = 0. When U(a) > .5, P(a) = 1. It is completely determined by U(a). In contrast, the prediction from LQRE is less sharp. P(a) increases with U(a), but P(a) > 0 for U(a) < .5 and P(a) < 1 for U(a) > .5. In other words, there is some chance of mistakes. The flatness of the line captures the extent of mistakes that the actors make. Flatter lines mean higher chance of mistakes. At the limit, the line will become flat, and P(a) = .5 for all U(a). At the other limit, where the actors never make mistakes, LQRE approximates Nash. In a series of highly influential contributions, Signorino (1999) with co-authors (Bas, Signorino and Walker 2007, Signorino and Yilmaz 2003, Signorino and Tarar 2006) established the empirical application of quantal response equilibrium models for observational data in political science, cumulating with the concept of stratistical backwards induction and an associated "easy-to-use" R-package for the statistical estimation of such games (Signorino and Kenkel 2015). In the case of simultaneous move games, there has yet to be developed the methodological machinery and an "easy-to-use" software package for the estimation of such models on observational data.

The logic of the Empirical Implications of Theoretical Models (EITM) approach to the empirical testing of (game-) theoretic models (Granato and Scioli 2004) can easily be presented with the example of roll-call vote requests generally and more specifically in the European Parliament (EP) as discussed by Chiou, Hug & Høyland (2017). In the EP (up to a recent change in the standing orders, see Hug 2016*b*) all votes were carried out either by signaling (standing up, or voice) or an electronic voting system. Upon a request by one party group (or 40 members of the EP (MEPs) a roll-call vote could be carried out. Chiou and Yang (2008) propose a simultaneous move games estimator based directly upon McKelvey and Palfrey (1995), and apply it to roll-call requests in the two-party Taiwanese Parliament.

In a pilot for **StREP** we replicated Thierse (2016), and found that the results did not fully hold up once strategic aspects were incorporated in the estimation. We furthermore showed that applying strictly the QRE framework to observational data may be of limited value (McKelvey and Palfrey 1995). In the model of McKelvey and Palfrey (1995) r_{ij} is the probability that actor j will request a roll call on vote i. $EU_{ij}(R)$ is the expected utility for actor j of a roll call on vote i. $\Pi_{h \neq j}(1 - r_{ih})$ is the probability that no other actor request a roll call on vote i. The weighting factor λ_j reflects individual-specific strategic considerations to actor j. As these weighting factors tend toward 0, individuals are predicted to take all of their actions with equal probability. While in the lab this implication makes sense, as all other aspects are, by the experimental setting, tightly controlled for, researchers dealing with observational data can hardly guarantee this. To account for this, we extend the original model, discussed in Goeree, Holt and Palfrey (2016):

$$r_{ij} = \frac{1}{1 + \exp\left(-\lambda_j \left(EU_{ij}(R)\Pi_{h \neq j}(1 - r_{ih})\right)\right)}$$

to include a cost parameter τ ($\in (-\infty, \infty)$) which may be common, or vary (τ_j) across actors, resulting in

$$r_{ij} = \frac{1}{1 + \exp\left(\tau_j - \lambda_j \left(EU_{ij}(R)\Pi_{h \neq j}(1 - r_{ih})\right)\right)}$$

This formulation has as a consequence that when λ_j approaches 0, r_{ij} tends towards $\frac{1}{(1+\exp(\tau_j))}$ for each actor j. As this is independent of any of the other players' action, it can be interpreted as the non-strategic part of actor j's utility of requesting a roll call, perhaps reflecting the non-strategic costs of making a roll call request. In other words, as λ approaches 0, the model turns into a series of standard logit models. Unfortunately, due to identification issues, we can only estimate the relative magnitude of λ if at least one of the parameters going into $EU_{ij}(R)$ is common to all actors. But through model comparison, we can evaluate empirically to what extent λ differ across actors. The calculation of r_{ij} is computational demanding. To address this, we develop purpose-specific C++ code in order to solve this computational challenge. A major advancement of **StREP** is the development of software in the form of an R-package designed to strategic roll call requests.

Having established why political groups make roll call requests, **StREP** turns the investigation to the effect of roll call requests on voting behavior. This is done through extensions of the standard item response theory model. In the standard version of the model

$$\pi_{ij} = \Pr\left(y_{ij} \middle| \theta_j, \beta_i, \alpha_i\right) = F(\theta_j \beta_i - \alpha_i)$$

where πij is the probability that legislator j votes yea on vote i, and y_{ij} is legislator j's voting decision (nay/yea) on vote i. θ_j is the ideal point (the most preferred policy) of legislator j, β_i is the discrimination parameter for vote I, and α_i/β_i is the location of the midpoint between the yea and nay alternatives for vote i. It measures to what extent legislators with different θ vote differently on vote i. If β is positive, legislators with higher θ are more likely to vote yea. If β is negative, legislators with higher θ are more likely to vote nay. The magnitude captures the strength of this relationship. If β is indistinguishable from 0 for vote i, then there is no systematic relationship between θ and the probability of supporting vote i.

The logic is illustrated Figure 1. Consider the votes, x, y, and z and legislators L, C, and R. The discrimination parameters $\beta_{x,y,z}$ are 1, -1, and 0. In the case of vote x, where α = -1, resulting in a midpoint of -1/1 = -1, the vote separate those with θ below -1 from those with θ above -1, as β =1 those with higher θ are predicted to vote yea while those with lower are predicted to vote nay. Vote y separate at α = -0.5, but as β = -1 α/β = .5, those with higher θ are predicted to vote nay while those with lower are predicted to vote yea. While vote z is located at α = 0.5, it does not separate those with θ above from those with θ below this cut-point as β, the discrimination parameter is 0. It is hence not possible to locate the midpoint for vote z. Legislator X is predicted to vote yea on vote y and nay on vote x. Legislator C is predicted to vote yea both x and y. Legislator R is expected to vote nay on both x and y. We have idea on how they will vote on vote z.

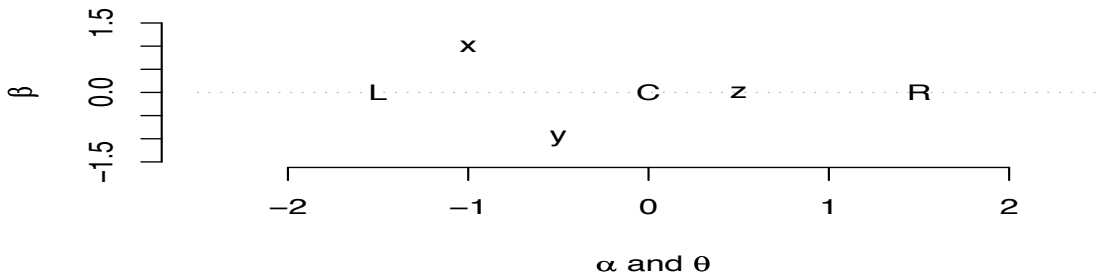


Figure 1. The logic of an Item-Response Theory Model.

While Høyland (2010) and Hug (2016) add vote-specific terms to capture the type of vote to capture differences in party pressure across different types of votes, and the identity of the group requesting a roll call, we will extend upon these contributions by adding more co-variate, possible in a hierarchical setting as votes are nested in proposals (Clinton and Jackman 2009, Jackman 2009). Furthermore, as we have data on all votes, as well as committee votes, we will treat these as non-ignorable missing data and add a selection stage to the models in order to both account for missing votes on individual legislators (Rosas, Shomer and Haptonstahl 2015, Zhang and Wang 2012), as well as predict voting participation and behavior of all MEPs in electronic votes where information about the vote split, but not how individual MEPs votes, is available. The structural approach proposed by Marbach (forthcoming) can be extended to include a range of additional sources of information, in a more general Bayesian structural equations framework (Lee 2007), possiblly also drawing on Bayesian additive networks (Heckerman, Geiger and Chickering 1995, Lewis and McCormick 2012).This will in turn allow for assessing the range of the possible magnitude of the effect of roll call requests that is consistent with the data under varying theoretical assumptions, thereby answering the second secondary research question of what the effect of roll call request is on voting behavior.

Impact

Potential impact of the proposed research

While the empirical focus **StREP** is narrow, the potential impact is substantial and multifaceted.
First, our findings will pave the way for a reassessment of the balance of power in the European Union (EU), which in turn has implication for the kind of reforms the Union could and should take on in order address the perceived democratic deficit and inefficiencies (Hix 2008).

Second, consider that the pilot study of Chiou, Hug and Høyland (2017) develops an estimator for an n-person volunteer game that is appropriate for observational data. They provide already considerable evidence, based on Monte Carlo simulations, that the estimator performs very well in many situations and succeeds in recovering the true coefficient values in Monte Carlo simulations. The case of the EP is not unique. As public votes are not the default voting mode in most parliament, the approach developed in **StREP** will be directly applicable for a range of different parliaments. Moreover, as the EP is a relatively large, and heterogeneous parliament, the computational approaches that work in this scenario are likely to work across a wide range of parliaments.

Second, although the EP roll call request application provides new insights and is applicable to a range of different parliament and decision-making bodies (For an application of the framework to the UNSC, see Chiou, Hug and Høyland 2018), a limiting assumption is that one volunteer suffices to produce the good (i.e., $k = 1$ in most setups of this game). In many instances more than one volunteer is necessary to produce a particular outcome and the number of actors is larger than the number of members of the UNSC. For instance, in many parliaments not party groups have the power to request a roll-call vote, but a certain number of members of parliament (MPs) (Hug, Wegmann and Wuest 2015). In many parliaments private member bills need the support of co-sponsors. Thus, by making the proposed estimator useful in a broader set of cases that have similarities with volunteer games with higher thresholds, the impact of **StREP** will vastly expand.

Third, in political science the provision of public goods is a central theme in many areas of research (Ostrom 1990). The classic contribution by Olson (1965) quickly found applications in areas dear to political scientists, like the formation of military alliances, or the creation of and compliance with international institutions (North 1990). While applies collective action games, for instance regarding the fulfillment of treaty obligations with respect to military expenditures in NATO (Oneal 1990) can be conceived of as equivalent to the volunteer games. However, in many contributions the strategy spaces in these collective action games are continuous. Assuming again that choices are made simultaneously, the proposed estimator could be extended to consider best-response correspondences based on pure strategies in continuous action spaces and the chosen action (e.g., the level of oil production, or the level of military expenditures).

Both directly through the impact on our understanding of politics in the European Parliament, and through its many possible extensions, **StREP** has a broad range of implications for a range of research topics in political science, international relations, and political economics. Moreover, these areas talk in turn to the 16th of the **UN Sustainable Development Goals** concerning Peace, Justice and Strong Institutions. For this goal to materialize, and for policy recommendations towards realizing this goal, it is essential to take the strategic incentives of actors into account.

Measures for communication and exploitation

Our primary goal will be to publish articles in the general political science journals. For the substantive articles on roll call requests in the EP, as well as the extensions of the empirical applications of the estimator. the goal is to publish these in the general political science journals such as the *American Political Science Review, American Journal of Political Science, British Journal of Political Science,* and *European Journal of Political Research* as well as the leading specialist journal *European Union Politics*. For the methodological contribution, the aim is to publish these in method-oriented journals such as *Political Analysis* or *Political Science, Research and Methods*. For the book, we aim to publish it with the one of the relevant book series at one of the major university presses such as Cambridge University Press.

These planned articles will first be presented at international conferences like the annual meetings by the *American Political Science Association*, the *European Political Science Association*, the *Midwest Political Science Association,* the *Political Methodology Section of the American Political Science Association*, the conference on the *Political Economy of International Organizations*, *the biannual conference for European Studies*, the annual conference for the *European Consortium for Political Research Standing Group on Parliaments*, and the biannual conference for the *European Consortium for Political Research Standing Group on Parliaments*. In addition, we will organize a larger conference with political methodologists and EP scholars to present our results and link this with a book workshops where our manuscripts will be discussed before final submission to potential publishers.

Last but not least, the impact of new estimators is also heavily to the easy availability for potential users. Following up on Signorino and Kenkel (2015) R-package games proposed to estimate a set of sequential move games will develop a similar R-package and make it available to the scholarly community through the usual channels, such as github and CRAN (R Core Team 2014).

Implementation

Project manager and project group

Bjørn Høyland is co-author of the leading textbook on EU politics (Hix and Høyland 2011), and has written invited reviews on politics in the European Parliament (Hix and Høyland 2013, Hix and Høyland 2014, Høyland 2016). He has contributed to the literature on testing of game-theoretic models of delegation in legislatures as well as the evaluation of models of legislative voting behavior, and effects of procedural reforms. An example of the former is Franchino and Høyland (2009) which demonstrate that within-coalition, rather than within-parliament, preference heterogeneity, conditional on scope for ministerial drift, explains the involvement of national legislatures in the national implementation of European Union legislation. In Høyland (2006), he tests, and finds support, for an informational account of delegation within committees in the European Parliament. In a second line of inquiry, he has estimated models of voting behavior that account for party pressure (Høyland 2010). In addition, Høyland has published on politics in national parliaments, including the Canadian House of Commons (Godbout and Høyland 2011, 2013, 2017), the Norwegian Parliament (Høyland and Søyland forthcoming), as well as the Irish Seanad (Sircar and Høyland 2010).

Simon Hug has contributed to the literature on empirical tests of game-theoretic models in various ways. Studying the emergence of new political parties, he has demonstrated, based on a game-theoretic model, that the analyses of the electoral success of these new parties induces selection biases (Hug 2001). In both of these studies, as well as those on the effect of international conventions (Gleditsch et al. 2018) and decision rules on special purpose trust funds (Eichenauer and Hug 2018), the empirical tests of comparative statics stand at the forefront. Similarly, Carrubba, Gabel and Hug (2008) propose a game-

theoretic model on roll-call vote requests and derive a set of implications based on comparative statics. Moreover, he has conducted extensive research into legislative procedures in parliaments across the world (Hug, Wegmann and Wuest 2015), as well as legislative voting in the Swiss legislature (Bütikofer and Hug 2015, Hug 2010).

Fang-Yi Chiou's research interests include legislative politics, executive politics and the interaction between political institutions especially in the U.S. and Taiwan. He has published on a variety of subjects, including legislative gridlock, legislative agenda setting, and legislative organization, in major political science journals. His recent book, *The Enigma of Presidential Power: Parties, Policies, and the Strategic Uses of Unilateral Action* proposes comparable game-theoretic models, new measurement, and detailed empirical assessments to investigate the enigmatic relationship between presidential power and the chief executive's unilateral authority (Chiou and Rothenberg forthcoming).

StREP will hire 2 postdoctoral researchers for the first 3 years of the project. **Postdoc I** will be based in Oslo. She or he will contribute mainly towards the theoretical and computational development of quantal response theory framework and its empirical applications. **Postdoc II** will be based in Geneva. She or he will contribute mainly towards the extensions of the item-response theory model of voting, building the strategic request of roll call votes into the model, and its empirical applications.

Project organisation and management

StREP is based at the Department of Political Science at the University of Oslo. It is in partnership with the University of Geneva (Simon Hug). Academia Sinica, Taipei (Fang-Yi Chiou) is also affiliated with the project. The duration of the project is 48 months. The PI will spend 50% of his time on the project. Both the PI and Hug will contribute to all work-packages (WP), listed here with WP-leader in brackets.

WP1: (Høyland) Data develops an automated database for both plenary and committee activities in the EP, extending the PIs automated database on MEPs. It will be the task of the Oslo-based RA, under the guidance of the PI to develop the database. The development will be continuous for first 36 months.

WP 2: (Hug) Statistical Roll Call Requests provides the first methodological contribution of the project. Article 2.1 presents the statistical estimator for simulations move games for with two players or more. A series of Monte - Carlo studies demonstrate the properties of the estimator, contrasting it with results from standard estimators in the discipline. Article 2.2 extend the framework to allow for analysis of how roll call requests influence legislators voting behavior, thereby extending the standard item-response theory framework. Article 2.3 develop various extensions to the framework to allow for different function forms and relations between actors, thereby drastically extending the scope for empirical applications of the methodology developed in this project.

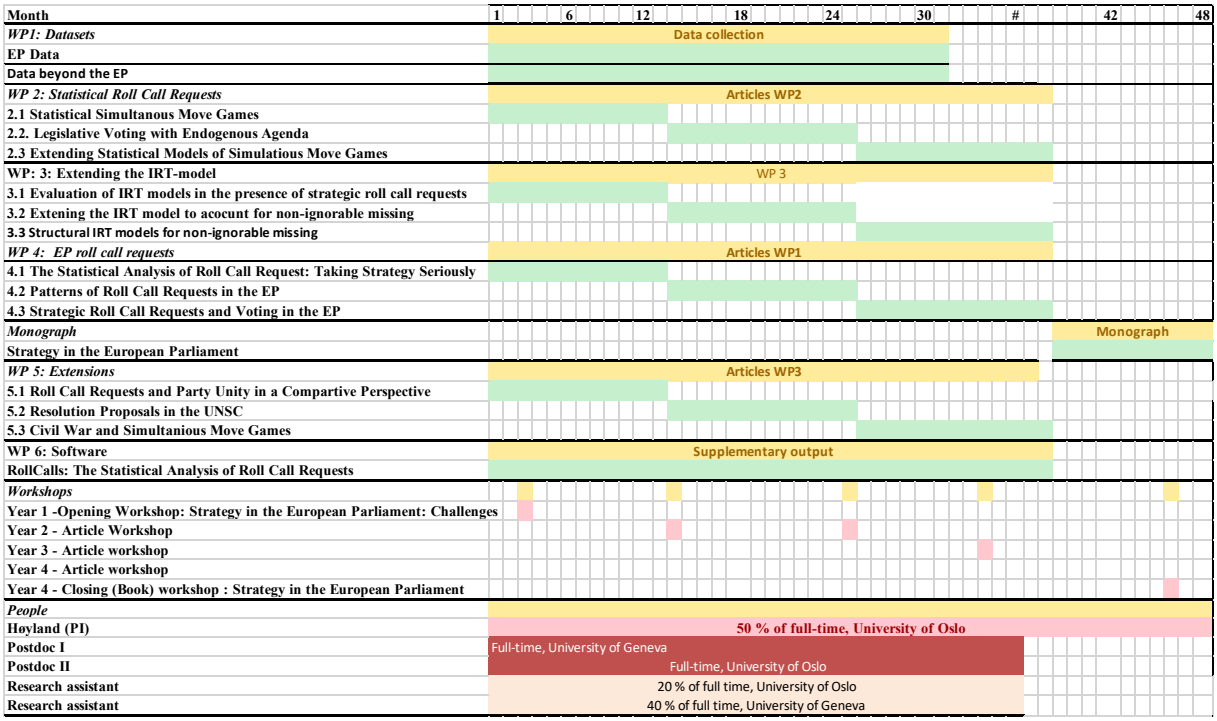
WP 3: (Høyland) Extending the IRT-model takes the standard IRT model presented in Clinton, Jackman and Rivers (2004) as the starting point, extending it to account for the selection into the dataset caused by strategic roll call requests. Article 3.1 uses simulated data to establish the conditions that need to hold for standard IRT models to produce valid estimates in the presence of strategic roll call requests. Article 3.2 extends the IRT framework to account for non-ignorable missing votes and participation in votes. Article 3.3 develops a structural framework for estimating the implied parameter values required for roll call votes for the model to be consistent with the partially observed data from votes without roll call.

WP 4: (Høyland) EP Roll Call Requests provides the main empirical contribution of the project. Article 4.1 provides a critical review of the existing literature, highlighting the disconnect between theory and empirical testing, and demonstrate how statistical models that account for the expected behavior of other actors may lead to radical different conclusions regarding the logic of roll call requests than those that emerge from standard statistical models. Article 4.2 maps the pattern of roll call requests in the EP over time and across procedures, investigating whether and to what extent strategic considerations differ across actors, over time and across procedures. Article 4.3 takes the above as the

point of departure and investigate to what extent, and under which conditions roll call requests influence MEPs voting behavior, and by implications measures of political group unity and patterns of collusion and competition between political groups. The key finding and broader implications of the results for our understanding of politics in the EP, and democracy in the EU more generally, will be presented as a monograph. The monograph will have a less technical presentation, suitable for a more general, and broader, political science audience.

WP 5: (Hug) Extensions take the project beyond the European Parliament, demonstrating how this approach can have broad-reaching implications across comparative and international politics that can impact empirical political science and social science more generally. Article 5.1 takes the first leg of this journey by extending the empirical breadth of the project to cover roll call requests in a selection of legislatures with different procedures for requesting roll calls, investigating in particular how varying threshold for triggering roll call requests influence its use. Article 5.2 leaves the realm of legislative politics to consider conceptional similar institutional arrangements in international organizations. In particular, it applied the framework to study the decision to sponsor resolutions in the United Nations Security Council. Article 5.3 demonstrates that the approach is not limited to highly formalized setting, but suitable for studying behavior more general. As a demonstration for the broad-reaching implications, it considers the targeting of civilians by rebel and government forces engaged in fighting a civil war building on (Hug and Schubiger 2016).

WP 6: (Høyland) Software develops the statistical software required to conduct the statistical analyses in the project. The code will be developed by project members with additional assistance from programmers at the scientific computing unit at the University of Oslo (USIT). The software will be open and freely available on CRAN, the package distribution platform for R. The development of the software will place throughout the duration of the project.



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