United Nations *Peace and Progress*, Volume 4 (1), pp. 3-29. <u>https://postgraduate.ias.unu.edu/upp/</u>



TRACK ONE: RESEARCH PAPER

Cluster 1: Peace and Governance

Ethno-National Confrontation and Electoral Choice: Local and National Voting under Northern Ireland's 'Unlikely Constitutional Consensus'

WEIDINGER, Mathias¹

ABSTRACT

Ethnic conflicts are at the heart of many security concerns worldwide. Often, they are addressed through constitutional engineering whereby electoral institutions are designed to disperse conflict potential. However, some of these institutional designs accommodate societal conflict rather than resolving it. This paper analyses the functioning of such a design in Northern Ireland. The impact of ethno-nationality on voting preferences, as an indicator of societal strive, is the key relationship under consideration. I formulate the assumption that party-preferences Northern Ireland are unevenly distributed on the semantic ethnonational in (unionist/nationalist) issue dimension. While political parties thereon are clearly demarcated, the ideational distances between them vary considerably relative to the 'centrist' position. This translates into different levels of moderatism/extremism among parties. The model presented tests this hypothesis as a matter of revealed valuation through voting. Odds ratios of partyvoting by ethno-nationality are estimated using multinomial logit. To account for variation between governance levels, the model compares voting decisions in both local and national (UK) elections. The findings suggest that ethno-nationally minded voters are more moderate in their choices, where these choices concern the more distant UK level of governance and less moderate during regional elections, where the level of governance concerned is more immediate to the conflict itself.

KEYWORDS: conflict, ethnonationality, voting, multi-level governance, Northern Ireland

¹Mathias Weidinger studies Public Policy (MSc) at UNU-MERIT and Economic and Financial Research (MSc) at Maastricht University. The author wishes to thank Seán McGeown and colleagues of the NIA Library, and Aaron Healy for their dedicated support exploring the archives at Stormont Castle, Belfast.

I. INTRODUCTION

How to best allocate latent conflict-potential and promote integration via the electoral process is of great relevance to many societies. This is certainly so in Europe, where long-served democracies face repeated revolt from secessionist movements, either at national level (towards the European Union (EU)) or intra-nationally (like Catalunya and the Basque Country in Spain or Northern Ireland and Scotland in the UK). In the highly salient case of Northern Ireland, there are unusually many options for these dynamics to unfold.

The Northern Irish electorate participates in three major types of periodically reoccurring elections, each referring delegates to a different level of governance (regional/Northern Irish, national/British, and supra-national/European). While scholarly attention on the ever-shifting power-ratios in the conflict between Irish nationalists, and pro-British unionists, and non-sectarians accumulates, their fate under either of the voting systems used in Northern Ireland remains contested (Coakley & Fraenkel, 2017). More so, there is virtually no literature on the implications of different voting systems being used in a plural society like Northern Ireland in the context of regional *and* national elections.

The Northern Irish case with its clear demarcation between conflicting groups and the longevity of those structures is particularly well-suited for testing. This essay explores how voting choices in Northern Ireland are conditioned by group affiliation. Quantifying the strength and directionality of these effects on local Northern Ireland Assembly (NIA) and general (UK) elections gives valuable insight into how incentives change with the application of different voting rules at different levels of governance. The findings suggest a dispersion of conflict in national elections compared to regional ones.

Mending previous to models of ethno-national voting (e.g., Fraenkel & Grofman, 2004; Coakley & Fraenkel, 2010), this paper assumes asymmetrical distribution of ideology along a one-dimensional semantic issue dimension; while parties are clearly demarcated and perceived as either nationalist, unionist, or neither, the ideational distances between them are not symmetric to a centrist's position. This asymmetry translates into different levels of moderatism or extremism among parties. The model presented tests this hypothesis as a matter of revealed valuation through voting. Estimates of voting likelihoods by ethno-nationality are obtained using multinomial logistic regression. The findings, based on survey data (Tonge, 2010, 2015, 2017), reveal both the directionality and strength of ethno-nationality's influence on party choice.

The aim is to (1) arrive at a quantitative estimate of where voters position the parties on the ethno-national issue dimension and to (2) see whether or not voting behaviour in deeply divided Northern Ireland differs with regards to the two levels of governance, the NIA and the UK parliament. Following a comprehensive section on the state of the art, the analytical framework is introduced. It covers the theoretical and conceptual operationalisation. Therafter, data and methods are disclosed. Results are interpreted in detail in the discussion. Eventually, a brief summary of the findings, a hint at limitations, and some suggestions for future research are offered.

II. STATE OF THE ART

The ethno-national continuum in Northern Ireland runs from radical nationalist to radical unionist, where the midpoint corresponds to a non-sectarian position. The ideological dimension of the Northern Irish conflict stems from a society, divided in multiple ways (Grofman & Fraenkel, 2008; Coakley & Fraenkel, 2010, 2017; Evans & Tonge, 2013; Elliott, 2009; McGarry & O'Leary, 2004, 2009; Mitchell, 2001, 2007, 2012, 2014). Cleavages pertinent to religious denomination, schooling, or housing (Evans & Tonge, 2013) overlap and streamline into what Eckstein (1966) termed a "segmental cleavage" (p.34; see also Zuckerman, 1975); one that, by its ubiquity, divides society into competing, autonomously functioning groups.

When many widely scoped cleavages coincide perfectly with one another over time to form a segmentation of society, "[t]he man on the other side...soon becomes an enemy" (Dahl, 1967, p. 277, see also Axelrod, 1970, p.158-160). Because such static division gives little room for further integration among or differentiation from either group (Horowitz, 1993b, 175), party politics in such societies tend unfold along the same fault lines (Horowitz, 1993b, p.174). This description of mutually reinforcing divisions is reflected in Northern Ireland.

A. Socio-political institutions and divisions in Northern Ireland

While ethno-religious nationalism has marked Northern Ireland for centuries, its reinforced institutional character was written into the Belfast Agreement of 1998.² Celebrated as the basis of peace, the treaty also solidified the party-political dichotomy between Unionists and Nationalists. This is evident in the fact that elected officials must declare themselves as 'Nationalist', 'Unionist', or 'Others'. The major ethno-national parties include *Sinn Fein* (Gaeilge for "ourselves", SF) and the Social-democratic and Labour Party (SDLP) for Irish

² Otherwise known as the 'Good Friday Agreement' (GFA) - for the legal provisions pertinent to this discussion, consult the Northern Ireland Peace Agreement, Strand one on *Democratic Institutions in Northern Ireland*.

nationalists and the Ulster Unionist Party (UUP) and the Democratic Unionist Party (DUP) for unionists.

There is a relatively recent presence of parties which either run more inclusive agendas or focus on other neutral issues (e.g. environmentalism). The inability to genuinely frame oneself in nonconflicting terms, say, 'feminist' or 'socialist', causes great disenchantment among nonsectarian political figures (Green Party representative, personal communication, February 15, 2018). This is only one of many examples of rigid checks and securities that seem to cause inefficiencies in the delivery of democratic governance.

Another one, the condition to 'power-share' for devolution, implies that both ethnonationalities must coalesce in the NIA. This does not only prevent one group from dominating over the other, but also precludes the blocs from coalescing with non-sectarian parties. Concurrently, the two highest executive positions must be chosen one each from the two conflicting groups. The constitutional arrangement, hence, implicitly assumes persisting segmentation for the future and constructs government upon ethnic plurality (see Nagle & Clancy, 2012, p.93; O'Leary, 1998).

B. Constitutional engineering and voting systems in theory

The institutions described are in line with the theory of Consociationalism. This theory is based on the premise that divided peoples are resilient "to assimilate, fuse, or dissolve into one common identity" (McGarry & O'Leary, 2009, p.26). Societal strife is conceptualised as an intractable conflict (Horowitz, 1993b, p.173; Rein & Schön, 1994). Accordingly, total conflictresolution by favourably altering the institutional framework is deemed unattainable. Instead, appeasement and institutionalisation of societal divisions is sought. To that end, consociationalists promote proportional power-sharing. What follows is "government by elite cartel...to turn a democracy with a fragmented political culture into a stable democracy" (Lijphart, 1969, p.216). This favours grand coalition government, proportional representation (PR), ethnic self-reliance, and mutual veto rights (Lijphart, 1969, 1977, 1991, 1996; Nagle & Clancy, 2012, p.82). Built-in assurances like these tend to build sticky institutions which, as in Northern Ireland, prove increasingly difficult to alteration (see Horowitz, 2014).

Suppose identity was less deterministic as consociationalism posits and conflict resolution through social transformation was possible. For some scholars, identity is a form of ideational 'incarceration' (Sen, 2006) that can be appeased by means of aligning the interests of the conflicting groups. Because alignment is sought through moderation towards a centrist position, the pertinent theoretical strand is dubbed 'centripetalism'. This theory promotes majority rule

PEACE AND PROGRESS - THE UNITED NATIONS UNIVERSITY GRADUATE STUDENT JOURNAL

rather than PR to prevent institutionalised segmentation. Less ethnically deterministic variants of representation serve as a platform for "bottom-up transformative processes located at the level of civil society and designed to encourage intergroup reconciliation" and stratification towards other issue-dimensions (Nagle & Clancy, 2012, p.83). In that sense, Centripetalism takes direct issue with the rigid corporatist frameworks of Lijphart's (1969) 'government by elite cartel'.

The dispersion or concentration of opposed interests are of crucial relevance to social conflicts. As we have seen, consociationalism postulates that a stronger concentration of interests leads to compartmentalised representation and strong negotiation positions for the constituent groups. Centripetalists, on the other hand, posit that dispersion of conflicting interests mitigates strife more effectively. Both states can be achieved by different means in a democratic system, but the potential of the electoral process to mitigate conflict is emphasised in the literature (for a post-electoral approach, see Axelrod,1970, pp. 152-153). Electoral rules are, thus, of major importance in divided societies.

Centripetalists prefer person- over party-voting. Horowitz promotes majoritarian systems, like Alternative vote (AV), rather than PR for the attainment of centripetal vote-transfers. In his opinion, AV facilitates inter-group voting and the election of moderates best, while it contains extremist tendencies (see Horowitz, 1985, 1991a, 1991b, 1991c, 1993a, 1993b, 2002, 2006, 2007, 2014). More generally, moderate parties contend better in cross-ethnic vote pooling than extremist parties in a system where every preferential tier can go to a different party's candidate. Thus, preferential voting systems, like AV or Single Transferrable Vote (STV), arguably reward moderation, penalise extremism, and promote the dispersion of conflicting interests (Horowitz, 1991b, p.452).

"The presence of vote-pooling institutions may encourage the development of this type of moderate core.... But it cannot invent moderation where none exists" (Reilly, 2004, p.16). Hence, consociationalists' premise that segmental cleavages are per se intractable. The more common variants of PR (see Gallagher, Laver, & Mair, 2011) function on basis of party list voting and put little emphasis on candidate-voting. Lijphart promotes these electoral regimes (1977, 1991, 1996, 1997) which he claims maximise "the power and flexibility of segmental leaders" (1977, p.137). List-PR provides for grand coalitions and renders self-representation for ethnically distinct constituencies. This yields a concentration of conflicting interests and a compartmentalisation of political representation. Both consociationalism and centripetalism deal with the "familiar aversion of ethnic majorities to limits...to unfettered ethnic majority

rule" (Horowitz, 2014, p.10). The stiff consociational templates of minority representation may seem less assailable than centripetalist majoritarianism, which bears greater risk of violent relapse. Then again, sticky consociational institutions accommodate societal conflict rather than solving it.

C. STV and SMP: Northern Ireland's contrasting electoral regimes

Due to its combination of proportionality and preferential voting, STV has been described as "the best of both worlds" in the Northern Irish context (Mitchell, 2014, p. 247). There, local NIA elections and EP elections are conducted under STV. On the ballot (see figure 1) voters are asked to assign numbers to the candidates available, according to preference. The crucial difference between AV and STV, then, is that the latter uses a simple droop quota to translate vote shares into a distribution of multiple seats per constituency. This gives STV its proportionality. First preference votes are counted in randomised order until one candidate reaches the electoral threshold defined by the droop-quota.³ Once the quota is reached, the candidate is deemed elected. All the candidate's first-preference votes that exceed the quota are disposed and the second preferences on these ballots are assigned to the remaining candidates. Once first and second preferences amount to the electoral threshold for another candidate, she is deemed elected and the exceeding votes are, again, allocated to the remaining candidates according to lower-tier preferences. This process reiterates until all seats in the constituency are filled (see Gallagher et al., 2011; Sinnot, 2010; van der Eijk & Marsh, 2007, p. 7-9; Cave, 2013).



Figure 1: Exemplary STV ballot with the options to vote for candidates A - D. (source: own compilation).

 $[\]left[v/(s+1) \right] + 1$; v valid votes casted, divided by the sum s of seats to be filled and one, plus one.

PEACE AND PROGRESS - THE UNITED NATIONS UNIVERSITY GRADUATE STUDENT JOURNAL

Under STV, Voters do not have to fear that their vote is wasted if they vote for an unpopular party or candidate, nor are they otherwise incentivised to deviate from their sincere preference. A voter's dominant strategy under STV is always to vote truthfully (van der Eijk & Marsh, 2007, p.8; Sinnot, 2010). The persistence of segmental politics in Northern Ireland is, thus, a hurtful reminder of sustained strife. In absence of formal party-compulsion, "ethno-national blocs could disappear if voters decided to put their support behind parties who advanced non-ethnic issues" (Nagle & Clancy, 2012, p.83).

STV is unique in that it is the only PR system in use in the UK (for a comparison with list-PR and AV, see Coakley, 2009, p.263). In Northern Ireland this prevents that any one minority dominates over the rest. STV does so without relying on the same heavy institutional checks and minority securities typical of other PR systems. Assemblies elected by STV can be expected to be somewhat heterogeneous but, in absence of party-compulsion, they are more capable of accommodating cross-community interests than, say, list-PR (Horowitz, 2002).

Some say, STV weakens party-cohesion (e.g., Lijphart, 1991, p. 99). The validity of this claim can be questioned on two grounds. Firstly, empirical studies have repeatedly failed to evidence party demise in STV countries. Party-political and candidate-specific considerations, it seems, supplement each other (Mitchell, 2014; see also Gallagher, Laver, & Mair, 2011, p. 389). Secondly, the postulation that candidate-based voting undermines party-coherence follows the overarching argument that juxtaposes dispersion of conflicting interests with their concentration along party lines. Such concentration can occur under STV, although only by the voter's concrete wish (Nagle & Clancy, 2012, p. 83). Voters may for example choose to vote for candidates of the same party only, a practice known as 'straight ticket' (see Marsh, 2007).

Lastly, the contention that STV is too complicated (Lijphart, 1991, p. 99) is outdated. Differentiating who bears its complexity, no issue arises for the voters who only assign numbered preferences to the candidates (Sinnot, 2010, p. 117). Such preference-orderings are familiar from many situations. The decision whether to have Italian, Japanese, or fast food for dinner involves ordering the alternatives in a similar way. Presumably, rational actors would choose the alternative they enjoy most, would deviate to their second preference if the first became unavailable, and so forth. STV's complexity falls to the experts whose job it is to process the votes (Mitchell, 2014). STV is no more mysterious than the formulae underlying other systems. "Try discussing d'Hondt, Hare and Sainte-Lague in public bars!" (O'Leary, 2001, p. 71).

Single Member Plurality (SMP)⁴, on the other hand, is used throughout the UK in elections to the Westminster parliament. In contrast to STV, it is infamous for disproportional outcomes. Interested readers are referred to Gallagher et al. (2011, p.372) for a thorough introduction. Of importance to the remainder of this study is that, different to STV, SMP voting is conditional rather than preferential. The voter has to take a discrete choice; voting for one party means voting against all of its contenders.

III. ANALYTICAL FRAMEWORK

It follows that STV's and SMP's merits should be measured against their performance. Conflict mitigation can be operationalised as the extent of integration between the social segments expressed in their likelihood to vote for parties from the opposed side or non-sectarian parties, as well as readiness to reward moderation in one's own group. Overall, one would expect voting-transfers from more radical to more moderate parties and moderation efforts of radical parties in response to voters' altered preferences.

A. Prior evaluation and tentative hypotheses

Studying Northern Irish regional elections over time, Mitchell (2014) finds that prior to 1998, "inter-ethnic vote-pooling in Northern Ireland was very close to zero. Afterwards transfers from the moderate unionist UUP to the moderate nationalist SDLP averaged 32 per cent (and 13 per cent in the opposite direction) in the period 1998–2007" (p.1). A look at the 2017 NIA election data (EONI, 2017) accords with these findings. Although net-transfers benefited moderate parties as projected, the two radical parties still hold most seats in the NIA, with the DUP accounting for 28 and Sinn Fein for 27 out of 90. Hitherto, moderates do not outweigh the radical wings on either side of the cleavage.⁵

The second type of moderation, radical parties following the new electoral preferences of their voters towards the centre, is apparent: Sinn Fein and DUP, who both refused to engage in power-sharing immediately after the Belfast Agreement, are today the main actors in the very institutions they once despised. This more conciliatory course has enabled them to reap votes from their moderate intra-ethnic contenders (Wilford, 2010, pp. 135-13, see also Gordon, 2008; Nagle & Clancy, 2012). The few remaining 'abstentionist' parties fell in disfavour. As of 2018, the only such party in the NIA (the TUV), holds a single seat. Thus, the more voters prefer moderation the more parties are willing to moderate. If parties fail to moderate they risk to incur

⁴ Otherwise known as First Pass the Post (FPTP) or simple plurality voting.

⁵ An analysis of the lower-tier vote-transfers during the 2017 NIA election is available in XLS at www.nielectionresearch.weebly.com.

vote loss within and, sometimes, between the two ethno-national blocs. The following segment introduces single-peakedness in the context of Social Choice Theory (SCT) and its meaning for predicting voting behaviour in divided societies.

B. Social Choice Theory

SCT deals with "the aggregation of individual interests, or judgements, or well-beings, into some aggregate notion of social welfare, social judgement or social choice" (Sen, 2017a). The quest for fundamental conditions under which to aggregate individual preference orderings meaningfully at societal level go back to Marquis de Condorcet (1785). Arrow (1963; see also Sen, 2017b) identifies four 'natural conditions' for societal decision-making in a democratic way. They are 'unrestricted domain', 'unanimity', 'independence of irrelevant alternatives' (IIA), and 'non-dictatorship'. Put simply⁶, it is demanded that an aggregation of individual preferences should be able to return any logically possible alternative, should consider everybody's preferences, should not consider irrelevant alternatives, and should not fall under the sole control of one individual. These are held to be the very conditions for meaningful democracy.

Arrow (1963) subsequently proved that there is no possible system that complies to all his criteria (i.e., Arrow's 'impossibility theorem'). A dictatorship always exhibits unanimity and independence of irrelevant alternatives, whereas any non-dictatorial system fails to provide them simultaneously unless the decision-domain is restricted (p. 59). SCT is of interest to this study because the ranked voting analysed by Arrow closely resembles STV.

The general reasoning of preference ordering also precedes the discrete voting decision, as exemplified by SMP. Different to SMP, where that ranking must be translated into a discrete decision for one and against all other parties (Dahlberg, 2013; van der Eijk, van der Brug, Kroh, & Franklin, 2006), STV effectuates all relevant tiers of a voter's preference ordering. Like Coakely and Fraenkel (2010), this paper considers voting outcomes in Northern Ireland as close to complete group rankings *sensu* Arrow. Applying SCT constitutes a certain heuristic limitation, as it knowingly disregards the possibility of strategic voting. In the case of Northern Ireland, however, the risk of voters' tactical deviation is rather low to begin with, as will be outlined below.

⁶ For the formal theorems expressed in axiomatic terms see e.g., Gaertner (2010) and Sen (2017b).

C. Domain condition by single-peakedness

To overcome Arrow's theorem means to proof that an election process is bound to lead to a meaningful outcome: A candidate who would win a pairwise contest against any of her contenders individually must be the eventual winner. That candidate is called a 'Condorcet Winner'. To facilitate, one may condition the unrestricted domain set out by Arrow to resemble more closely the situation one wishes to analyse (Gaertner, 2001). Northern Ireland's society is thoroughly divided by a segmental cleavage which conditions the interests of people. This, in turn, can be expected to affect their preconceived electoral preferences. We may, therefore, assume that the domain can be limited to those behavioural patterns we expect to see. The condition for preferences to be 'single-peaked' very well materialises in a divided society. A single-peaked curve is "one which changes its direction at most once, from up to down" (Black, 1958, p.7). Figure 1 shows three single-peaked preference orderings over five alternatives.



Figure 2: Three single-peaked preference curves over five alternatives. (Source: Black, 1948, p. 31)

Such a "geometric ordering...may represent an ordering of the alternatives on some semantic issue dimension", where, for example, left means most Nationalist and right means most Unionist (List, Luskin, Fishkin, & McLean, 2013, p. 82). Any voter's party-preferences are defined by the voter's position on the ethno-national issue dimension and the different parties' various ideological distances to the voters on the same dimension (Downs, 1957, p. 47). Rational voters will, assuming their sincerity, order the parties from closest to farthest.

A societal profile of preference orderings is single-peaked only "if every individual's preference ordering is single peaked with respect to the same geometric ordering" (Downs, 1957, p. 47). A less demanding condition than that is a society's high 'proximity to single-peakedness'. That means that "the existence of a large enough subset M of individuals in N with single-peaked preferences may also be sufficient" to justify the expectation that the characteristics of single-

peakedness are highly likely to occur at societal level (for an axiomatic definition and proof, see List et al., 2013, p.83; cf. Bossert & Peters, 2009).

While it may be unrealistic to expect absolute single-peakedness at societal level, high proximity to single-peakedness denotes a general sense of certainty (Lackner & Lackner, 2017). In a society that is characterised and deeply marked by the very same divisions which define party politics, it is reasonable to expect that people agree to a greater extent, which parties represent their own and their opponents' group respectively, which parties are in between, and which ideological distances separate them from each other. List et al. (2013) refer to this as "meta-agreement", Dahlberg (2013) as "perceptual agreement". Such agreement "on a common semantic issue dimension in terms of which to conceptualise the choice at hand" involves a three-step process: (1) the focus on a common semantic issue dimension, (2) the placement of alternatives in the same left-right order on it, and (3) everybody's identification of a personally most preferred alternative (List et al., 2013, p.84; see also Dahlberg, 2013, p. 672).

In Northern Ireland, the first step involved the emergence of conflict between Nationalist and Unionist positions. Secondly, the electorate grasps where the parties available are positioned on the continuum between extreme Unionism and Nationalism. Thirdly, voters find their own position on the divide and choose as their most preferred option the party closest to them.

STV, furthermore, involves reporting lower preference tiers. "The resulting approach to singlepeakedness...can be expected to be more pronounced to the extent that there is a natural issue dimension" because the more those deliberating come to disagree, the more they come to agree about what they are disagreeing about (List et al, 2013, p.84). Empirical testing⁷ indicates that "for highly salient issues, which have usually received a good deal of casual deliberation in the participants' environments, preference profiles are close to single-peaked". The protracted Anglo-Irish rivalry certainly qualifies. Single-peakedness even holds for less issue-ridden societies like the whole UK (Fieldhouse et al., 2006). Northern Ireland most likely has proximity to single-peakedness.

Black's theorem postulates that, if society displays (close to) single-peaked preferences, then a Condorcet winner exists (Black, 1958). Because the existence of a Condorcet winner equally fulfils the second and third of Arrow's conditions without necessitating a dictatorship, the assumption of single-peakedness avoids impossibility by limiting Arrow's first condition (viz.,

⁷ See the online appendix to List et al. (2013), accessible at

www.jstor.org/stable/10.1017/s0022381612000886?seq=1#supplements_tab_contents.

general applicability). Let's illustrate this theoretical discussion on the example of Northern Ireland.

D. Application

Limiting the analysis to five parties, there are 5! = 120 possible permutations to form preference orderings over these parties.⁸ It has been shown that for *n* possible alternatives, 2^{n-1} of all possible orderings are single-peaked. For the five parties under consideration, $2^{5-1}=16$ of the 120 possible orderings are single-peaked (see Escoffier, Lang, & Öztürk, 2008, lemma 2). Table 1 shows these 16 permutations for parties *a*, *b*, *c*, *d*, and *e*, which lie on some semantic dimension which ranges, alphabetically, from *a* to *e*.

(a, b, c, d, e)	(c, b, d, a, e)	(d, c, e, b, a)	(c, b, a, d, e)
(b, a, c, d, e)	(c, b, d, e, a)	(d, e, c, b, a)	(c, d, b, a, e)
(b, c, a, d, e)	(c, d, b, e, a)	(e, d, c, b, a)	(d, c, b, a, e)
(b, c, d, a, e)	(c, d, e, b, a)	(b, c, d, e, a)	(d, c, b, e, a)

Table 1: All possible single-peaked orderings of five parties a-e (source: own compilation).

Replacing letters *a* through *e* with the five major Northern Irish parties (from Unionist to Nationalist), it becomes evident that half of the single-peaked preference orderings violate strictly ethnical voting, ranking parties from both ethno-national groups alternatingly (cf. Fraenkel & Grofman, 2004). In tables 1 and 2, the boxes containing these excludable options are coloured grey, whereas the valid eight possibilities are white.

⁸ 5! = 5 * 4 * 3 * 2 * 1 = 120.

(DUP, UUP, APNI, SDLP, SF)	(APNI, UUP, SDLP, DUP, SF)	(SDLP, APNI, SF, UUP, DUP)	(APNI, UUP, DUP, SDLP, SF)
(UUP, DUP, APNI, SDLP, SF)	(APNI, UUP, SDLP, SF, DUP)	(SDLP, SF, APNI, UUP, DUP)	(APNI, SDLP, UUP, DUP, SF)
(UUP, APNI, DUP, SDLP, SF)	(APNI, SDLP, UUP, SF, DUP)	(SF, SDLP, APNI, UUP, DUP)	(SDLP, APNI, UUP, DUP, SF)
(UUP, APNI, SDLP, DUP, SF)	(APNI, SDLP, SF, UUP, DUP)	(UUP, APNI, SDLP, SF, DUP)	(SDLP, APNI, UUP, SF, DUP)

 Table 2: Single-peaked party-preference orderings for Northern Ireland, strictly ethnic voting behaviour in white cells.

 (source: own compilation)

Table 3 shows five societal sub-groups' expected preference orderings of the five main parties in NI, based solely on voters' ethno-national affiliation and the parties' positioning on the ideological dimension given the rankings above.

	Nationalist		Non-sectarian	Unionist	
	resolute RN	moderate MN		moderate MU	Resolute RU
DUP	5^{th}	5^{th}	$4^{\text{th}} \text{ or } 5^{\text{th}}$	2^{nd}	1^{st}
UUP	4^{th}	4^{th}	$2^{nd} or 3^{rd}$	1^{st}	2^{nd}
APNI	3 rd	3 rd	1^{st}	3 rd	3 rd
SDLP	2^{nd}	1^{st}	$2^{nd} or 3^{rd}$	$4^{ ext{th}}$	4^{th}
SF	1^{st}	2^{nd}	$4^{\text{th}} \text{ or } 5^{\text{th}}$	5^{th}	5^{th}

 Table 3: Purely ethnic preference orderings for five societal sub-groups in Northern Ireland. (source: own compilation)

Graphing these ratings, figure 3 visualises their single-peakedness. The lines connecting the dots only serve illustrative purpose due to the preference orderings being ordinal, not continuous. Visually, the preference tiers ought to be understood as running from the top to the bottom (e.g., following the dark green line the first preference for RN is SF, followed by SDLP, APNI, UUP and, lastly, DUP).



Figure 3: Single-peaked party-preference curves for five sub-groups of voters in Northern Ireland. (source: own compilation)

Given that voters' preferences are fixed in the short run, parties are immediately more likely to adapt to voters' ideological positions than the opposite (Downs, 1957). Following this reasoning, one arrives at Down's median voter theorem which states that parties' policy preferences tend to converge towards the one voter's preference, who has one half of the electorate on his ideological right and the other one on his left (i.e., the median voter). That the median voter need not be at the centre of the ideological spectrum is apparent in Down's treatise on strategic voting (p. 49). It is impossible for the median voter to be the *most* Unionist or Nationalist for any odd-numbered electorate in Northern Ireland. Thus, the probability to encounter the median position must approach zero towards the extremes, but the shape of the distribution curve need not necessarily resemble any symmetry.

As was indicated earlier, people in divided societies are deterred from misrepresenting their single-peaked preferences (Moulin, 1980). Because the Condorcet winner is always determined by the median-peak, a viable way to alter the outcome to one's benefit would be to change the median peak. One would must flip to the other side of the ideological spectrum to do so. That is contrary to any voter's interest. This insight explains preference-voting's often-cited insusceptibility to strategic voting (see Gallagher et al., 2011; Sinnot, 2010; Mitchell, 2014). Single-peakedness, thus, avoids impossibility and allows for an aggregation of preferences in ways that are efficient and strategy-proof.

Based on the theoretical framework, the following hypotheses guide the analysis:

- H_1 : Likelihoods, by ethno-nationality, to vote for DUP, UUP, APNI, SDLP, SF and others respectively are asymmetrically distributed along the ideological issue dimension.
- H_2 : The likelihoods, by ethno-nationality, to vote for DUP, UUP, APNI, SDLP, SF and others respectively differ considerably between local (NIA) and National (UK) elections.

IV. DATA AND METHODS

To translate the directional assumptions described above into quantitative predictions of voting behaviour and to specify the position of parties on the ideological issue dimension, I proceed to analyse survey data from a relatively recent series of surveys in Northern Ireland. The analysis is performed in SPSS.

The Northern Ireland General Election Attitudes Survey (Tonge, 2010, 2015, 2017) is a validated dataset (n=3959), from which one can trace closely the relation between ethnonational identity and concrete electoral choice. The data-set includes stated voting decisions for both UK elections (SMP) and first-preference votes in NIA elections (STV). It was compiled using computer assisted personal interviews (CAPI) with randomly selected adults aged 18 or more, sampled representatively from all over Northern Ireland. Moreover, the respondents were asked to self-complete a questionnaire thereinafter. The surveys are certified by the Economic and Social Research Council (UK).

The three individual sets for three different years were pooled into one dataset, including only the variables relevant to this study. This involved reversely recoding some of the values to ensure consistency in the variable outcomes over time and among the formerly separate sets. A cohort variable, denominating the year of the cases, was also included to ensure traceability of the cases to the original data set. Table 4 shows the frequencies regarding the independent variable.

		Frequency	%	valid %	Cumulative %
Valid	Unionist	1370	34.6	36.6	36.6
	Nationalist	1011	25.5	27.0	63.7
	Neither	1358	34.3	36.3	100.0
	Total	3739	94.4	100.0	
Missing	Refused	220	5.6		
Total		3959	100.0		

Table 4: Frequencies of ethno-national affiliation in Tonge (2010-2017).(source: own compilation)

A. Variables

The dependent variable is the discrete choice to vote for one of the parties available either conditionally (SMP) or as first preference (STV). While it would be insightful to study lower preference tiers too, this step further exceeds the scope of my BA Thesis. This approach seems legitimate as only about 5% of seats on average transfer between parties at lower tiers, mostly intra-ethnically. To overcome the complication of party variation over time – some parties demise, others form – the analysis limits itself to the five parties, which have continuously been present throughout the period of analysis: DUP, UUP, APNI, SDLP, and SF. Any other party-votes are included in the category 'others'. Thus, the dependent variable consists of six nominal party alternatives. Merging all 'others' into one outcome alternative appears appropriate a tool of facilitation because their vote share does usually not exceed one NIA-seat (1.12...%) and, overall, the nationalist and unionist tendencies within this artificial category cancel out rather nicely.

The independent variable is the respondents' stated ethno-national identity, (i.e., Nationalist, Unionist, or Neither). Some political and socio-demographic indicators other than ethnonationality are devised as control variables. These include political self-positioning on left to right (0-10) scale, gender (dummy), age (18-25; 26-35; 36-45; 46-54; 55-65; and 65+), and level of education (none, primary, secondary, tertiary, or other). Unfortunately, data for household income, another frequently found control variable, was unreliable. Too many participants refused to answer this sensitive question.

B. Analysis

To test for the existence and strength of influence of ethno-national affiliation on party choice, standard multinomial logistic regression is used (see e.g., Cramer, 2003, pp. 104-125). Two separate regressions are performed over the same data-set. The first tests for voting choice in the UK elections of 2010, 2015, and 2017, conducted under SMP. The second analyses ethno-national affiliation's effect on first preference choice during the NIA election of 2017, conducted under STV. Multinomial logistic regression is a multi-equation model that estimates Y-1 logit equations and assumes logarithmic distribution, as opposed to normal distribution, of the probability of the event. With regards to the Y=6 parties dependent variable, the regression estimates 5 logit equations and maintains the sixth category as reference.⁹ Here, the artificial

⁹ for DUP: $log(y = 1) = log\left(\frac{p(y=1)}{1-(p=1)}\right) = \beta_0 + \beta_1 p_{i2} + \dots + \beta_p x_{in}$ for $i = 1 \dots n$, for UUP: $log(y = 2) = log\left(\frac{p(y=2)}{1-(p=2)}\right) = \beta_0 + \beta_1 p_{i2} + \dots + \beta_p x_{in}$ for $i = 1 \dots n$, for APNI: $log(y = 3) = log\left(\frac{p(y=3)}{1-(p=3)}\right) = \beta_0 + \beta_1 p_{i2} + \dots + \beta_p x_{in}$ for $i = 1 \dots n$,

party sub-type 'others' serves as reference category. The model thus calculates the logits for the five major parties, DUP, UUP, APNI, SDLP, and SF, with respect to 'others'. That is a conceptually sound comparison because, on average, 'others' evinces a non-sectarian position.

Regressing the observed party choice on ethno-nationality as well as the control variables yields statistical indicators, two of which will be discussed. The β coefficient shows the marginal rate of change (i.e., the change in predicted log likelihood to choose a certain party per one unit change in the explanatory variable). The odds ratio (OR), which is the exponentiation of the β coefficient¹⁰, provides the relative likelihoods that people with a certain characteristic (i.e., the independent variable) will vote for the party, compared to voting for 'others'. The OR of the reference category is by default OR=1. Thus, an OR greater than 1 indicates that an individual will more likely vote for a certain party than for the reference category. Conversely, an OR smaller than 1 indicates that an individual's likelihood to vote for that party is smaller than to vote for 'other'. The OR's magnitude indicates the exact probabilistic difference. An OR of 1.2, for instance, means that the voter is twenty percent more likely to vote for the party concerned than to vote for 'other', while an OR of 0.2 (one fifth) suggests that the voter is five times less likely to vote for the party at hand.¹¹

V. RESULTS

Let us see how the differences in OR yield an empirically informed spatial impression of ethnonationally conditioned voting in Northern Ireland.

A. Model fit¹²

Ideally the sample would include observations for all possible combinations of the dependent variables' values. By including five independent variables, the number of combinations of their values has skyrocketed. There are some combinations of these variables for which there are no observations. With a small sample size (N=3959), empty cells are almost inevitable. Cases of Nationalists voting for UUP were particularly scarce and results for this combination are meaningless in both models. Given that the standard-errors are reasonable for all other outcomecategories, all other findings are valid (Field, 2009, p.307).

 $\begin{aligned} &for \ SDLP: log(y = 4) = \log\left(\frac{p(y = 4)}{1 - (p = 4)}\right) = \beta_0 + \beta_1 p_{i2} + \ldots + \beta_p x_{in} \ for \ i = 1 \ldots n, \\ &for \ SF: log(y = 5) = \log\left(\frac{p(y = 5)}{1 - (p = 5)}\right) = \beta_0 + \beta_1 p_{i2} + \ldots + \beta_p x_{in} \ for \ i = 1 \ldots n. \end{aligned}$

¹¹ 1 * 120 % = 1.2 and 1 / 0.2 = 5.

¹² the model outputs in .spv format are avaiable at www.nielectionresearch.weebly.com.

The chi-square ($\chi 2$) test measures the decrease in unexplained variance between the baseline model and the final model. In both cases, this change is large and highly significant (p < 0.001), which means that both models explain a significant amount of the original variance. The pearson deviance dispersion parameters are close to 1 for both models, which does not indicate overdispersal.¹³ Moreover, the Pseudo R-squares (Cox & Snell, Nagelkerke) are very similar and reasonably large in both models. That indicates overall good model fit. In the following, statistical significance is marked by an asterisk.

B. Northern Ireland Assembly Election

First prej	ference (NIA)?	β (SE)	lower	OR	higher
DUP	Unionist	3.87 (0.51)*	17.83	48.00	129.19
	Nationalist	0.00 (1.00)	0.14	1.00	7.09
	Neither	0.64 (0.41)	0.84	1.89	4.24
UUP	Unionist	2.51 (0.52)*	4.42	12.25	33.94
	Nationalist	-19.37 (0)	3.854E-9	3.854E-9	3.854E-9
	Neither	-0.59 (0.56)	0.19	.55	1.66
APNI	Unionist	0.22 (0.67)	0.34	1.25	4.65
	Nationalist	1.39 (0.79)	0.85	4.00	18.84
	Neither	0.85 (0.40)*	1.07	2.33	5.09
SDLP	Unionist	-0.69 (0.87)	0.09	0.50	2.73
	Nationalist	3.11 (0.72)*	5.46	22.50	92.75
	Neither	1.67 (0.36)*	2.62	5.33	10.87
SF	Unionist	-1.38 (1.12)	0.03	0.25	2.24
	Nationalist	4.14 (0.71)*	15.46	62.50	252.68
	Neither	0.11 (0.46)	0.45	1.11	2.73

Table 5: Results of the Multinomial Logistic Regression in the Final Model Showing Effects on voting behaviour in NIA elections.

The reference category is: others. $R^2 = 0.822$ (Cox & Snell), 0.846 (Nagelkerke). Model χ^2 (15) = 941.059*, *p < 0.05.

Table 5 shows the model output for the 2017 NIA election with regards to first preference votes given. The coefficients for political self-assessment, gender, age, and education attainment are suppressed as none of the control variables rendered significant results. Unionists are not significantly more or less likely to vote for APNI, SDLP, or Sinn Fein. They are, however, more than twelve times more likely to vote for UUP and more than forty times more likely to vote for DUP than they are to vote for 'others'.

 $^{13} \phi_{Pearson (NIA)} = \frac{\chi^2}{df} = \frac{1889.752}{1815} = 1.04 \qquad \phi_{Pearson (UK)} = \frac{\chi^2}{df} = \frac{3935.258}{3455} = 1.13$

Nationalists, on the other hand, are not significantly more or less likely to vote for DUP, UUP, or APNI than for 'others'. They are, however, more than twenty times more likely to vote for SDLP (OR=22.5) and even sixty times more likely to vote for Sinn Fein (OR=62.5) than for 'others'. Self-declared non-sectarians are significantly more likely to vote for either SDLP (OR=5.33) or APNI (OR=2.33) than they are to vote for 'others'. Interestingly, their likelihood to vote for SDLP is greater than for APNI.

C. UK Parliamentary Elections

Party	voted for?	β (SE)	lower	OR	higher
DUP	Unionist	0.07 (0.38)	0.51	1.07	2.265
	Nationalist	-3.90 (0.67)*	0.005	0.02	0.076
	Neither	-1.86 (0.35)*	0.078	0.15	0.310
	Left-Right (0-10 scale)	0.18 (0.04)*	1.100	1.20	1.316
UUP	Unionist	-0.34 (0.43)	0.306	0.71	1.658
	Nationalist	-23.75 (0.00)	4.845 E ⁻¹¹	4.845 E ⁻¹¹	4.845 E ⁻¹¹
	Neither	-1.86 (0.39)*	0.072	0.15	0.334
	Left-Right (0-10 scale)	0.13 (0.05)*	1.033	1.14	1.263
APNI	Unionist	-0.85 (0.55)	0.144	0.46	1.261
	Nationalist	-0.38 (0.48)	0.263	0.68	1.754
	Neither	0.26 (0.42)	0.572	1.30	2.943
	Left-Right (0-10 scale)	-0.13 (0.06)*	0.772	0.88	0.998
SDLP	Unionist	-1.03 (0.53)*	0.127	0.36	0.999
	Nationalist	2.39 (0.34)*	5.602	10.93	21.342
	Neither	1.45 (0.32)*	2.275	4.29	8.083
	Left-Right (0-10 scale)	-0.20 (0.05)*	0.739	0.81	0.899
SF	Unionist	-2.26 (1.06)*	0.013	0.10	0.829
	Nationalist	3.91 (0.34)*	25.553	49.83	97.179
	Neither	1.44 (0.33)*	2.213	4.23	8.082
	Left-Right (0-10 scale)	-0.32 (0.05)*	0.659	0.73	0.805

Table 6: Results of the Multinomial Logistic Regression in the Final Model Showing Effects on voting behaviour in UK elections.

The reference category is: others. $R^2 = 0.731$ (Cox & Snell), 0.753 (Nagelkerke). Model $\chi^2(20) = 2232.806^*$, *p < 0.05.

Table 6 shows the model output for the UK elections of 2010, 2015, and 2017 regarding ethnonationality's effects on party choice. The coefficients for gender, age, and education attainment are suppressed as none of them yielded significant results. The respondents' political selfassessment did add explanatory value to the model. Its coefficients were statistically significant for all three categories of ethno-national affiliation.

ETHNO-NATIONAL CONFRONTATION AND ELECTORAL CHOICE

Unionists are hesitant to vote for either SDLP (OR=0.36) or Sinn Fein (OR=0.1). Towards their end of the ideological spectrum, they seem to be more dispersed towards the centre and are not significantly more or less likely to vote for DUP, UUP, or APNI than for any other smaller party. Meanwhile, Nationalists OR to vote for the Democratic Unionist Party is 0.02. They are, thus, fifty times less likely to vote for DUP than to vote for 'others'. The same people are more than ten times more likely to vote for SDLP (OR=10,93), and about fifty times more likely to vote for SDLP (OR=10,93), they are not significantly more or less likely to vote for Sinn Fein (OR=49.83) than to elect 'others'. They are not significantly more or less likely to vote for Ulster Unionist Party or Alliance.

Non-sectarians are about four times more likely to vote for Sinn Fein (OR=4.23) or SDLP (OR=4.29) than to vote for any smaller party, which comes as quite a surprise given these parties' Nationalist agenda. Non-sectarians are equally hesitant to vote for DUP (OR=0.15) or UUP (OR=0.15) They are, namely, seven times less likely to vote for either of the Unionist parties than to vote for 'others'. Unsurprisingly, they are not statistically more or less likely to vote for Alliance than for any of the other smaller (mostly cross-community) parties.

Lastly, the odds ratios for DUP (OR=1.2) and UUP (OR=1.14) indicate that they are favoured by voters on the right, while APNI (OR=0.88) leans slightly to the left. SDLP (OR=0.81) and Sinn Fein (OR=0.73) can be found further left. The β coefficients for left-right indicate that with each one step to the right on the ten-point scale, a voter's statistical likelihood to vote DUP increases by 18%, for UUP by 13%, while it decreases 13% for APNI, 20% for SDLP, and 32% for SF.

VI. DISCUSSION AND CONCLUSION

Figure 4 plots how the three different ethno-national categories of voters behave in local NIA elections and national UK elections. Ordered along the issue dimension (viz., Unionist, Neither, Nationalist), the spatial differences in voting behaviour become apparent.

In NIA elections, the concentration towards the wings is very pronounced. Both Nationalists and Unionists are much more likely to vote for the more radical party within their respective ethno-national group than to vote for the moderate intra-ethnic alternative. Here, the likelihoods to vote for the moderate ethno-national parties (UUP and SDLP) amounts to little more than a third of the likelihood to elect radical contenders (DUP and SF). The ethnic determinism among Unionists and Nationalists seems strong enough to disassociate them almost entirely from each other. It is eye-opening that neither of the two ethno-nationalities seem to consider cross-community parties such as APNI an alternative.



Figure 3: Likelihoods to vote for the major Northern Irish parties by ethno-nationality, reference category equals zero. (source: own compilation).

SDLP seems to even attract voters who do not openly sympathise with Irish Nationalism. Nonsectarians are, indeed, slightly more likely to vote for SDLP than to vote for their most representative group option, Alliance. Given the fact that Nationalists are the smallest societal cluster, and that Unionists and non-sectarians are almost equal in group size, it is a quite rational option for non-sectarians to vote for a (moderate) Nationalist's position to even out Unionists' initial advantage. Under the constitutional obligation of ethno-national co-government, it is in their best interest that the power-ratio between the opposing groups be as balanced as possible.

It is conclusive that the Nationalists, who are outnumbered by their opponents, rely more extensively on their ethno-nationality when making voting decisions and resort to more radical options more likely than their Unionist counterparts. They appear defensive in the face of an overpowering threat. This behaviour is more pronounced in UK elections. While the ethno-national rivalry on Unionists' side is reduced to a mere dislike towards Nationalist parties, Nationalists maintain their strict predisposition to vote for 'their' parties and are still about four times more likely to choose radical Sinn Fein over moderate SDLP - that is a greater difference than in NIA elections. Their indifference between non-sectarian and Unionist parties shifts to clearly disfavour DUP. The difference decrease in likelihoods between their own parties and non-sectarian contenders indicates that, at more distant national level of governance, Nationalists are less suspicious of cross-community parties.

ETHNO-NATIONAL CONFRONTATION AND ELECTORAL CHOICE

Does that mean that the conflict between Nationalists and Unionists itself is more distant than at local level? Unionists' voting behaviour certainly does not contradict this surmise. Their concentration on ethno-nationality has totally vanished. They are as likely to vote for APNI or 'others' in national elections. This gives a valuable insight into Unionists' self-understanding as truly British. They, perhaps, feel much closer to British politics and feel stronger about the issues that appear on the national agenda than the Nationalist population, which relates to the Irish Republic rather than Westminster. The availability of the major British leftist party, Labour, in these elections offers an interesting alternative for left-oriented Unionists to break with their ethno-national predetermination to vote for right-wing parties. Such behaviour would explain voters massive decrease in likelihood to vote DUP and UUP compared to non-sectarian alternatives. This finding contradicts claims that the "ethnic divide in Northern Ireland leaves little space for people to focus on politics of Left and Right" (Edwards & Parr, 2016). To the contrary, Unionists seem to consider UK elections as contests in their own right, rather than second-order regional elections. They do not project the local conflict to the national sphere as strongly as Nationalists, who lack identification with that level of governance.

Non-sectarians, again, favour nationalist parties to other options and dislike Unionist parties in this context. That their disfavour for DUP and UUP is greater than their favour for SDLP and SF, relative to cross-community options, may indicate their intention to even the playing field of ethno-national politics to favour middle ground outcomes. Overall, however, it their preferences differ least of all societal groups between local and national elections.

Returning to the two guiding hypotheses, both are confirmed. Likelihoods to vote for parties are by no means symmetrically distributed, not in NIA elections and less so in UK elections. In the latter, Unionist preferences are many times closer to an ideological null-point than Nationalists'. Unionists seem to vote more on a political issue basis than on grounds of ethnonationality in UK elections. At the local level both groups vote strictly ethno-nationally and prefer radicals to moderates. It is, thus, hard to foresee political moderation based on the groups' voting behaviour.

This study has not found evidence for the alleged moderating effects of STV, as overall the NIA elections seemed to be more defined by ethno-nationality than the UK elections. If the slight moderating effect witnessed between NIA and UK elections continues to grow in magnitude as we move to an even more distant level of governance, that may hint to a moderating effect of regionalism and supranationalism on local ethnic conflict in electoral

politics. Much research, in Northern Ireland as in divided societies elsewhere is still to be conducted before findings can become operative in the moderation of social strife.

REFERENCES

- Arrow, K. (1963). *Social Choice and Individual Values* (2nd ed.). New Haven, Connecticut: Yale University Press.
- Axelrod, R. (1970). Conflict of Interest: A Theory of Divergent Goals with Applications to Politics . Chicago: Markham Publishing.
- Black, D. (1948). On the Rationale of Group Decision Making. *Journal of Political Economy*, 56(1), 23-34.
- Black, D. (1958). *The Theory of Committees and Elections*. Cambridge: Cambridge University Press.
- Bossert, W., & Peters, W. (2009). Single-Peaked choice. Economic Theory, 41, 213-230.
- Cave, S. (2013). *Single Transferable Vote.* Northern Ireland Assembly, Research and Information Services to the Northern Ireland Assembly. Belfast: Northern Ireland Assembly.
- Coakley, J., & Fraenkel, J. (2017). The Ethnic Implications of Preferential Voting. *Government and Opposition*, 1-26. doi:10.1017/gov.2017.4
- Coakley, J. (2009). The Political Consequences of the Electoral System in Northern Ireland. *Irish Political Studies, 24*(3), 253-284.
- Coakley, J., & Fraenkel, J. (2010). Ethnic Conflict and Electoral Engineering: The Single Transferable Vote in Northern Ireland. *Presentation at the annual conference of the Political Studies Association of Ireland, Dublin Institute of Technology, 8-10 October* 2010. Dublin.
- Cramer, J. S. (2003). *Logit Models From Economics and Other Fields*. Cambridge: Cambridge University Press.
- Dahl, R. A. (1967). *Pluralist Democracy in the United States: Conflict and Consent*. Chicago: Rand McNally.
- Dahlberg, S. (2013). Does context matter The impact of electoral systems, political parties and individual characteristics on voters' perceptions of party positions. *Electoral Studies*, *32*, 670-683.
- Downs, A. (1957). An economic theory of democracy. New York: Harper & Row.
- Eckstein, H. (1966). *Division and Cohesion in Democracy: A Study of Norway*. Princeton: Princeton University Press.
- Edwards, A., & Parr, C. (2016, July 14). Ethnic divide in Northern Ireland leaves little space for people to focus on politics of Left and Right. *Belfast Telegraph*. Retrieved June

2018, from https://www.belfasttelegraph.co.uk/opinion/news-analysis/ethnic-dividein-northern-ireland-leaves-little-space-for-people-to-focus-on-politics-of-left-andright-34882014.html

- Elliott, S. (2009). The Electoral Dynamics of the Belfast Agreement. In B. Barton, & P. Roche, *The Northern Ireland Question: The Peace Process and the Belfast Agreement* (pp. 105-130). London: Palgrave Macmillan.
- EONI. (2017, March 2). NI Assembly Election 2017 Result Sheets. (The Electoral Office for Northern Ireland) Retrieved March 11, 2017, from eoni.org.uk: http://www.eoni.org.uk/Elections/Election-results-and-statistics/Election-results-andstatistics-2003-onwards/Elections-2017/NI-Assembly-Election-2017-Result-Sheets
- Escoffier, B., Lang, J., & Öztürk, M. (2008, July). Single-peaked consistency and its complexity. *ECAI*, *8*, 366-370.
- Evans, J., & Tonge, J. (2013). Catholic, Irish and Nationalist: evaluating the importance of ethno-national and ethno-religious variables in determining nationalist political allegiance in Northern Ireland. *Nations and Nationalism, 19*(2), 357-375.
- Field, A. (2009). Discovering Statistics using SPSS (3rd ed.). London: SAGE.
- Fieldhouse, E., Pickles, A., Shryane, N., Johnson, J., & Purdam, K. (2006). Modeling multiparty elections, preference classes and strategic voting. University of Manchester, Cathie Marsh Centre for Census and Survey Research. Manchester: CCSR. Retrieved from http://hummedia.manchester.ac.uk/institutes/cmist/archivepublications/working-papers/2006/2006-01-modelling-multiparty-elections.pdf
- Fraenkel, J., & Grofman, B. (2004, October). A Neo-Downsian Model of the Alternative Vote as a Mechanism for Mitigating Ethnic Conflict in Plural Societies. *Public Choice*, *121*(3/4), 487-506.
- Gaertner, W. (2001). *Domain Conditions in Social Choice Theory*. Cambridge: Cambridge University Bridge.
- Gaertner, W. (2010). *A Primer in Social Choice Theory* (revised ed.). Oxford and New York: Oxford University Press.
- Gallagher, M., Laver, M., & Mair, P. (2011). *Representative Government in Modern Europe* (5 ed.). Maidenhead, Bershire: McGraw-Hill Ed.
- Gordon, A. (2008). The St Anderws Agreement and the Northern Ireland Assembly. *European Public Law, 14*(2), 151-164.
- Grofman, B., & Fraenkel, J. (2008). Electoral Engineering, Social Cleavage, and Democracy.
 In P. F. Nardulli (Ed.), *Domestic Perspectives on Contemporary Democracy* (pp. 71-101). Urbana and Chicago: University of Illinois Press.
- Hix, S., & Marsh, M. (2007). Punishment or Protest? Understanding European Parliament Elections. *The Journal of Politics, 69*, 495-510.
- Hix, S., & Marsh, M. (2011). Second-order effects plus pan-European political swings: An analysis of European Parliament elections across time. *Electoral Studies*, *30*(1), 4-15.

- Horowitz, D. L. (1985). *Ethnic Groups in Conflict*. Berkeley: University of California University Press.
- Horowitz, D. L. (1991a). Ethnic conflict management for policymakers. In J. V. Montville (Ed.), *Conflict and peacemaking in multiethnic societies* (pp. 115-130). Lexington, MA: Lexington Books.
- Horowitz, D. L. (1991b). Making moderation pay: The comparative politics of ethnic conflict management. In J. V. Montville (Ed.), *Conflict and peacemaking in multiethnic societies* (pp. 451-476). Lexington, MA: Lexington Books.
- Horowitz, D. L. (1991c). A democratic South Africa? Constitutional engineering in a divided society. Berkeley: University of California University Press.
- Horowitz, D. L. (1993a, October). Democracy in Divided Societies. *Journal of Democracy*, 4(4), 18-38.
- Horowitz, D. L. (1993b). Conflict and the incentives to political accommodation. In D.Keogh, & M. H. Haltzel (Eds.), *Northern Ireland and the Politics of Reconciliation* (pp. 173-207). Cambridge: Cambridge University Press.
- Horowitz, D. L. (2002). Explaining the Northern Ireland Agreement: The Sources of an Unlikely Constitutional Consensus. *British Journal of Political Science*, *32*, 193-220.
- Horowitz, D. L. (2006). Strategy Takes a Holiday: Fraenkel and Grofman on the Alternative Vote. *Comparative Political Studies*, *39*(5), 625-662.
- Horowitz, D. L. (2007). Where have all the parties gone? Fraenkel and Grofman on the alternative vote yet again. *Public Choice*, *133*, 13-23.
- Horowitz, D. L. (2014). Ethnic Power Sharing: Three Big Problems. *Journal of Democracy*, 25(2), 5-20.
- Lackner, M.-L., & Lackner, M. (2017). On the likelihood of single-peaked preferences. *Social Choice and Welfare, 48*, 717-745.
- Lijphart, A. (1969). Consociational Democracy. World Politics, 21(2), 207-225.
- Lijphart, A. (1977). *Democracy in Plural Societies: A Comparative Exploration*. New Haven & London: Yale University Press.
- Lijphart, A. (1991). The alternative vote: A realistic alternative for South Africa? *Politikon,* 18, 91-101.
- Lijphart, A. (1996). The puzzle of Indian democracy: A consociational interpretation. *American Political Science Review*, *90*, 258-268.
- Lijphart, A. (1997). Disproportionality under alternative voting: The crucial and puzzling case of the Australian senate elections 1919 1946. *Acta Politica, 32*, 9-24.
- List, C., Luskin, R. C., Fishkin, J. S., & McLean, I. (2013). Deliberation, Single-Peakedness, and the Possibility of Meaningful Democracy: Evidence from Deliberative Polls. *The Journal of Politics*, 75(1), 80-95.

- Marquis de Condorcet. (1785). Essai sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix. Paris: L'Imprimerie Royale.
- Marsh, M. (2007). Candidates or Parties? Objects of Electoral Choice in Ireland. *Pary Politics, 13*(4), 500-527.
- McGarry, J., & O'Leary, B. (2004). *The Northern Ireland Conflict: Consociational Engagements*. Oxford: Oxford University Press.
- McGarry, J., & O'Leary, B. (2009). Power shared after the death of thousands. In R. Taylor (Ed.), Consociational Theory: McGarry and O'Leary and the Northern Ireland Conflict (pp. 15-84). London: Routledge.
- Mitchell, P. (2001). Transcending and Ethnic Party System? The Impact of Consociational Governance on Electoral Dynamics and the Party System. In R. Wilford (Ed.), *Aspects of the Belfast Agreement* (pp. 28-47). Oxford and New York: Oxford University Press.
- Mitchell, P. (2007). Party competition and voting behaviour since the Agreement. In P. Carmichael, C. Knox, & R. Osbourne (Eds.), *Devolution and Constitutional Change in Northern Ireland* (pp. 110-124). Manchester: Manchester University Press.
- Mitchell, P. (2012). Party Competition in a Ethnic Dual Party System. *Ethnic and Racial Studies*, *18*(4), 773-796.
- Mitchell, P. (2014). The single transferable vote and ethnic conflict: The evidence from Northern Ireland. *Electoral Studies*, *33*, pp. 246-257.
- Moulin, H. (1980). On Strategy-Proofness and Single Peakedness. *Public Choice*, 35(4), 437-455.
- Nagle, J., & Clancy, M.-A. C. (2012). Constructing a shared identity in ethno nationally divided societies: comparing consociational and transformationalist perspectives. *Nations and Nationalism*, 18(1), 78-97.
- O'Leary, B. (1998). The British-Irish Agreement: Power-Sharing Plus. *The Constitution Unit*, 1-16.
- O'Leary, B. (2001). Comparative political science and the British–Irish Agreement. In J. McGarry (Ed.), *Northern Ireland and the Divided World* (pp. 53-88). Oxford University Press.
- Reif, K., & Schmitt, H. (1980). Nine Second-order National Elections: A Conceptual Framework for the Analysis of European Election Results. *European Journal of Political Research*, 8(1), 3-44.
- Reilly, B. (2002). Electoral Systems of Divided Societies. *Journal of Democracy*, *13*(2), 156-170.
- Rein, M., & Schön, D. A. (1994). Frame reflection : toward the resolution of intractable policy controversies. New York: Basic Books.
- Sen, A. K. (2006). *Identity and Violence: The Illusion of Destiny*. New York & London: W.W. Norton and Company Ltd.

- Sen, A. K. (2017a). Social Choice. In *The New Palgrave Dictionary of Economics* (2nd ed.). London: Plagrave Macmillan.
- Sen, A. K. (2017b). Collective Choice and Social Welfare (expanded 3rd ed.). Penguin Books.
- Sinnot, R. (2010). The electoral system. In J. Coakley, & M. Gallagher (Eds.), *Politics in the Republic of Ireland* (5 ed., pp. 111-136). Abingdon and New York: Routledge.
- Tonge, J. (2010, 2015, 2017). Northern Ireland General Election Survey, 2017. *SN: 8234*. UK Data Service. doi:http://doi.org/10.5255/UKDA-SN-8234-1
- van der Eijk, C., & Marsh, M. (2007). Don't expect me to vote for you just because I like you, even if you do make me feel warm inside: A comparison of the validity of nonipsative measures of party support. *Paper presented at Annual Meeting of the American Political Science Association*. Chicago, 29 August - 1 September 2007.
- van der Eijk, C., van der brug, W., Kroh, M., & Franklin, M. (2006). Rethinking the dependent variable in voting behaviour: On the measurement and analysis of electoral utilities. *Electoral Studies*, *25*, 424 447.
- Wilford, R. (2010). Northern Ireland: The Politics of Constraints. *Parliamentary Affairs*, 134-155.
- Zuckerman, A. (1975). Political Cleavage: A Conceptual and Theoretical Analysis. *British Journal of Political Science*, *5*(2), 231-248.

The electronic annex to this study can be found at <u>www.nielectionresearch.weebly.com</u>.