Experimentation in voter behaviour research methodology

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Abstract

The Voter Choice Project is the first Columbia method multi-wave panel studying voter decision making through an Australian election campaign. The Columbia method was developed by Paul Lazarsfeld and colleagues at Columbia University's Bureau of Applied Social Research in their seminal studies of voter behaviour in Erie County (1940 Presidential election, published as *The People's Choice*) and Elmira (1948 Presidential election, published as *Voting*). A number of alterations were made to adapt the Columbia methodology from 1940s United States to 2018 Australia, and to change the method of data collection from face to face interviews to online questionnaire delivery. Additionally, the 'Mushiness Index', a scale of opinion volatility developed by pollsters Yankelovich, Skelly and White around 1980, has been incorporated and an adapted version applied to measure the volatility of a participant's vote intent. Other questions from many election studies around the world were also utilised in the final questionnaire design. 'Final' is a strong word, as tweaks have been made to respond to the volatile political environment, such as incorporating a three wave study of the six by-elections held during the study. Finally, a new way of measuring preference intent, an inferred two party preferred measure, was developed as part of the analysis. This proved less than optimal, and was abandoned and replaced by a hypothetical ranking question after an experiment in the Wentworth by-election study. These experimentations are driven by necessity, the lack of research in vote causality in Australia, and the increasing inaccuracy in political polling demonstrating a need for alternative approaches that may be met by a fused qualitative/quantitative approach. This paper will cover the practical aspects of adapting Columbia methodology and the Mushiness Index, developing the Voter Choice Project methodological approach, and what has been learned so far about the effectiveness or otherwise of these experimentations.

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Introduction

Empirical research on political behaviour has dominated political science since the 1950s (Ricci 1987), however, voter behaviour, and notably campaign dynamics, voter decision making and vote causality, are neglected areas of study in Australia. The Voter Choice Project is an experimental undertaking to help correct that deficit, demonstrating the value of multi-wave panel studies through the lead up to an election, utilising a method not previously deployed in Australia, and experimenting with a number of features to address the unique challenges of researching elections in Australia. This paper will briefly discuss the history of the field and the context in which the study came about, and then detail the adaptation of the Columbia method to an online panel, integration of the Big 5 personality index (BFI) and the Mushiness Index of opinion volatility, and invention of various approaches to surveying on preferences. Finally, a quick review of the main challenges for the study will be conducted, including the current volatility of politics in Australia and the Cambridge Analytica problem.

About voter behaviour studies

Election studies take place at two levels: the macro level or electoral level of 'why did *x* win the election'; and the micro level or individual voter level of 'why some people vote for *x* while others voted for *y*?' (Erikson 2002; Converse 2006). Election studies are, by their nature, complex, with a vast array of descriptive questions, i.e. questions that describe the characteristics of the population, and associative questions, i.e. questions that determine the relationships between variables. The variables that are important at the micro level are not necessarily important for macro level analysis and vice versa; and there is no agreement on what are the important variables for electoral behaviour studies (Erikson 2002; Knight and Marsh 2002). In theory, all macro-level explanations must derive from micro level behaviour, but contemporary macro-level studies have become largely divorced from analysis of micro-level data (Erikson 2002).

The Voter Choice Project is primarily a micro-level study of individual level of behaviour, with a focus on the uniqueness of voters, and a goal to enable them to express that uniqueness in the survey design. Macro-level explanations can be derived from the panel results, and have been derived from the by-election studies (Patrick 2018; Hondros 2018).

Voter behaviour theory

Scholarship examining voter behaviour is complex, trans-disciplinary by necessity, with no agreed or unified theory. There are three major schools of thought in voting behaviour. First, the Columbia School's Sociological model, which focuses on the influence of social context upon individual voters. This approach was principally argued in *The People's Choice. How the Voter Makes Up His Mind in a Presidential Campaign* (Lazarsfeld, Berelson, and Gaudet 1968 [1944]) and in *Voting: A study in opinion formation in a presidential campaign* (Berelson, Lazarsfeld, and McPhee 1954). Second, the Michigan School's Psychosocial model, which considers party identification as the main factor influencing the behaviour of voters. This approach was developed in *The Voter Decides* (Campbell, Gurin, and Miller 1954) and more significantly in *The American Voter* (Campbell et al. 1960). Third, Rational Choice theory, which argues voters are self-interested and rational beings who will make rational choices for the representatives that are most likely to achieve the best results for them. This third approach includes spatial voting theory and was initially developed in *An Economic Theory of Democracy* (Downs 1957), and is often referred to as 'Downs Theory' after author Anthony Downs. Each of the Sociological, Psychosocial and Rational theories have their strengths and weaknesses, and can co-exist: for example, it is entirely possible that an individual votes for the party they support, pressured to do so by social forces with their friends and family largely supporting the same party, and that vote decision is entirely rational and in their self-interest.

Each major theory has been advanced to some extent, and there are myriad minor theories that combine elements of the three main theories or advance them down a slightly different path. Huckfeldt and Sprague (1995) posited a Microsociological theory of voter behaviour, sometimes referred to as contextual voting, wherein all voters are interdependent, subject to a complex range of inter-related influences, with personal contact being a low cost, highly customised form of political information, which is a significant development of the Columbia theory. Philip Converse (2006 [1964]) developed an independent Ideological Voting theory from the Michigan School springboard, arguing that voters have neither a full set of beliefs to produce a coherent personal ideology nor a clear idea of what an ideology is. V.O. Key's (1966) *The Responsible Electorate*, in which he famously asserted '*the perverse and unorthodox assertion of this little book is that voters are not fools*' (p.7), confirmed the

importance of party identification; however, it also concluded that a large number of voters are moved by policy and performance, and that, contrary to the Michigan findings, those who switch party allegiance do so for valid valence or issue-based reasons. Dalton's (1984) Cognitive Mobilisation Theory argues that the increase in political literacy and decreasing cost of political information means voters are now able to deal with the complexities of voter decisions without partisan cues, causing partisan dealignment and resulting in greater electoral volatility. The Retrospective or referendum theory of voting developed by Fiorina (1981), which argues people vote as an assessment of performance, and valence voting, as first described by Stokes (1963) as the judgement of competence of rival parties, are notable developments of Rational voting theory with considerable merit, and are likely to be highly applicable to the 2019 Australian federal election.

The Michigan model was instantly more popular than Columbia's framework; however, it has also come under widespread and constant criticism for overstating partisanship and undervaluing the autonomy of voters (see Pomper (1978) for a review of the 25 main disputed points). The Michigan theories have been dominant in Australian voter research since Don Aitkin's (1982) seminal study in the 1960s and 70s, *Stability and Change in Australian Politics*, and continue to be influential through the Australian Election Study (AES). To date, neither sociological theory, nor a multi-wave panel study akin to the Columbia model, have been utilised in any known study of voter behaviour in Australia.

The Voter Choice Project, as well as being the first Columbia model study in Australia, has also incorporated a number of questions to investigate for any evidence supporting other significant theories to either exclude them or support an argument that these theories can co-exist. It is also retesting a number of findings of Creighton Burns'(1961) study on the 1960 La Trobe by-election, and the follow-up study by Alan Davies (1962) during the general federal election with the same sample. The La Trobe study was largely atheoretical, however the results align with the Columbia findings – the media have little impact on voter decisions, political propaganda less so, speeches of politicians least of all (Burns 1961, 62). Significant support was found in the November wave of the Voter Choice Project for the concept of a *political friend* described by Davies (1962) as an "ingenious solution to the hazardousness of others views", whereby people concentrate their political conversations with a known and trusted 'safe' audience. The parallels between the La Trobe study and

Columbia are most evident by Burns' (1961, 72, 120) declaration that "Voting is an inescapably social act, a decision about social preferences taken under the impact of pressures, incentives and inducements".

The Columbia method and Lazarsfeldian Methodology

The Columbia method to study voter behaviour involves multiple surveys conducted with the same people (a panel study) throughout an election campaign testing the Columbia voter behaviour theory. The Columbia voter behaviour studies were seminal studies conducted by the Bureau of Applied Social Research at Columbia University in the 1940s. There were two major studies: the Erie County study on the 1940 Presidential election (Lazarsfeld, Berelson, and Gaudet 1968) and the Elmira study on the 1948 Presidential election (Berelson, Lazarsfeld, and McPhee 1954). The first Erie County study had seven waves, one month apart, later studies had fewer waves, further apart and timed around natural decision points in the US Presidential campaign cycle (Eulau 1980; Rossi 1959).

The Lazarsfeldian Methodology, named after Paul Lazarsfeld who headed the Bureau of Applied Social Research and which underpins the Columbia method, is a fused qualitative and quantitative method (Jeřábek 2008). It involves combining both objective and subjective data (i.e. observation and questionnaires) and incorporating both quantitative and qualitative questions and analysis in the same survey tool where possible. In an unpublished 1933 manuscript "Principles of Sociography" (cited in Glock 1979; Lazarsfeld 1969) Lazarsfeld summarised his early research experiences and noted the need for integrating different methods in a formulation of the Lazarsfeldian approach. It included four rules that characterised his philosophy:

1. For any phenomenon one should have objective observations as well as introspective reports.

2. Case studies should be properly combined with statistical information.

3. Contemporary information should be supplemented by information on earlier phases of whatever is being studied.

4. One should combine "natural" (observation) and experimental (questionnaire) data.

Lazarsfeld's academic preference for questions of 'why' rather than 'what', combined with his personal intellectual interest in decision making processes, underpinned the Columbia tradition. An early summary of his research approach, and in particular the learning from the *Marienthal* study, was published in the seminal paper 'The Art of Asking Why' (Lazarsfeld 1935). In this paper, he focused largely on open ended questions, and sought to outline the necessary requirement to design survey questions in such a way that the different determinants of a decision really came to light. Lazarsfeld specified that three principles must be observed: **specification** – what does a question really mean; **division** – enable the interviewee to answer; and **tacit assumption** – what does the answer mean. In a slightly later, equally seminal, paper 'The Controversy over the Detailed Interview – An Offer for Negotiation' (Lazarsfeld 1944), he made a strong case that both open and closed questions can, and should, be used together for different purposes.

Panel studies versus other longitudinal or cross section studies

The vast majority of research conducted in the electoral space are single cross section surveys: a snap shot at a single point in time. While useful for their purpose, they cannot capture change or campaign effects, or provide insight into causality. Trend and time series longitudinal studies – i.e. a series of cross section studies collected at two or more periods of time, such as the Australian Election Study – can more accurately identify the nature of a phenomenon, or community level change over time, but cannot be used to demonstrate causality. Rolling cross section (or RCS) studies, used in the Canadian and New Zealand election studies, and notably in the Annenberg study (see Romer et al. 2006), are extremely effective at identifying campaign dynamics and media effects, but as no individual is interviewed twice, they also cannot demonstrate causality.

Panel studies gather data from **the same individuals** at multiple points in time, and thus have a greater ability to address issues of causality and change (Eveland Jr and Morey 2011; Andreß 2017; Ruspini 2002, 3–6). Panels with three or more questionnaire waves can distinguish between measurement error and true change over time (Bartels 1993); more effectively assess causality (Cole 2004) as well determine whether change is reinforcing,

linear or non-linear over time (Eveland Jr and Morey 2011; Singer and Willett 2003). Panels can also counter a number of types of errors and biases that can be inherent from other types of data collections, such as recall error, measurement error and selection effects (Andreß 2017). Where other studies may conceal change and give a false perception of stability, panel studies can reveal the true dynamic nature of change, by tracking individual behaviours rather than select attributes, or individual (micro) level change rather than aggregate community (macro) level change (Ruane 2015). Panel studies also enable a much larger number of variables to be collected about an individual voter, thus deepening the potential understanding of electoral phenomenon. If the election is held on the last post possible date of May 18, 2019, the Voter Choice Project will have amassed over 1000 variables from most respondents.

The length of time necessary to produce an effect is a central concern in the design of a panel study. Cumulative exposure to multiple influences may be required to produce any effect or change to vote intent. There may be a delay, or the effect of exposure may decay, or change with subsequent events. External stimuli, such as significant events in the campaign cycle (such as leaders' debates), can be used as quasi-experiments in the panel design, by timing waves before and after those events to effectively measure the causal effects (Eveland Jr and Morey 2011; Bryman 2016, 50). Smaller intervals between waves are more sensitive to change and better able to capture campaign dynamics (Kenski, Gottfried, and Jamieson 2010).

However, there are significant costs and limitations of a panel study. Time, cost, and the complexity of the resultant data all require careful management. Attrition - the loss of panel members as a result of the difficulty in reaching the same person for two or more contacts or because of the respondent's refusal of continuous cooperation - is a considerable challenge and the subject of much debate (Andreß 2017; Bartels 2000; Eveland Jr and Morey 2011; Lazarsfeld 1941, 1948; Miller and Salkind 2002, 320; Ruspini 2002, 72–73). A non-probability web based panel is both generally less expensive than surveys involving actual interviewers, is a faster mode of data collection, and has been shown to reduce panel attrition across the waves (Eveland Jr and Morey 2011, 31).

An online panel was considered an ideal way to replicate the Columbia studies in a modern setting and Australia-wide as it enabled easy management of the respondents, a familiar

and convenient way for people to participate, and the greatest ease of management in a volatile electoral environment where questions may need to be changed quickly, as happened when we suddenly had a new Prime Minister after Malcolm Turnbull was deposed in August (Fernando and Bedo 2018).

The Voter Choice Project has received nationwide media coverage, particularly from Fairfax papers, AAP and the ABC. Detailed and nuanced indications of the 'why' behind voter behaviour in the by-election studies has already changed the post-election media analysis. For example, in the Perth by-election, the Lazarsfeldian approach of fused quantitative and qualitative surveying and analysis was able to reveal a trust issue in relation to Labor candidate Patrick Gorman, depressing Labor turnout, which was both predicted from the first wave, and the extent of the 'none of you' sentiment confirmed in the third wave. This was covered extensively by *WA Today*, contradicting Gorman's rhetoric that the poor turn-out was the Australian Electoral Commission's fault (Hondros 2018; Burrell 2018). Similarly, he extent of the strategic vote and significant move in vote intent in the final week of the Wentworth by-election campaign, which would not have been possible to measure by any method other than a panel study, was covered in detail in a feature article in the *Australian Financial Review* (Patrick 2018). The 'why' is what journalists most want to know, and is arguably only answerable in a timely manner by the fused qualitative/qualitative online panel approach. Being able to reveal the 'why' in a timely way is already changing the conversation about what is happening in our elections, away from the claims of politicians and pundits to what the voters themselves are saying, which is one of the voter advocacy goals of the Voter Choice Project. This media coverage has also assisted with recruitment and retention, as participants can see that their participation is both valued and has a real-world effect.

The Mushiness Index and Big 5 Personality Index

In addition to the Columbia model, two scales have been utilised to enhance the study; the Mushiness Index and the Big 5 personality index.

Toward the end of the 1970s noted American pollster Daniel Yankelovich and his colleagues, concerned with the inaccuracy of public opinion polling, developed a four-question model to discern the volatility of given opinions (Yankelovich, Skelly, and White 1981). This

'question battery' determined whether public opinion on important policy issues was firmly or thoughtfully held, and/or likely to change with one form of question wording or another. *Time* magazine liked the idea, dubbed it the *Mushiness Index*, paid for its further development, and then never used it (Yankelovich 1991, 1996).

Volatility of opinion has been a concern of survey researchers from the early days of the profession. George Gallup (1947), Paul Lazarsfeld (1944) and Angus Campbell (1964) are among those who proposed multiple interlocking questions to help clarify complicated issue opinions. Gallup's (1947) Quintamensional Plan asked five questions (or categories of questions) in order: a filtering question to determine if they had thought about the issue at all; an open question to reveal the direction of their thinking; a yes/no question to a specific proposal; 'why' question(s) to determine the reasons behind the position held; and, a final question or question to determine the intensity of opinion. Yankelovich, Skelly and White (1981) developed their model continuing in this tradition, tested it thoroughly and found it to be highly effective at both determining how 'mushy' opinion was and why. The data they collected was reanalysed in a PhD dissertation which reconfirmed the findings (Wood 1985).

The Mushiness Index comprises four questions, each question asking respondents to answer on a scale of 1 to 6 how much the issue affects them, how much more information they need, how much they have been discussing the issue and how likely they are to change their mind. Within a range of 4 -24, scores of 4-10 indicate opinion mushiness; scores of 11-18 indicate moderate mushiness; and scores of 19-24 indicate opinion firmness. Collectively, an issue is firm when 50% or more of the respondents are firm in their opinions; an issue is very mushy when fewer than 50% are firm and 20% or more respondents are mushy (Yankelovich, Skelly, and White 1981, 18–19). Mushiness - or volatility - is present when there is evidence that a critical proportion of the public can change their opinions on a given issue. Mushiness is not, however, linked to intensity. Intensity describes the degree of commitment either for or against. A strong opinion can be short-lived or mushy; weak opinion can be durable or non-mushy (Yankelovich, Skelly, and White 1981, 1–6).

The Mushiness Index, in its original form, is being deployed on approximately half of the issues specifically surveyed as part of the Voter Choice Project. This is to measure its usefulness and application to this electorate and this particular panel. The more significant work with the Mushiness Index is the adaptation from volatility of issue opinions to volatility

of vote intent, and the deployment in a panel that can track the volatility of vote intent of an individual voter. Dubbed the Momentum Tracker, three different adaptations have also been put in the field thus far with interesting results, but much more work is required. The work with the Momentum Tracker is what enabled us to accurately predict the momentum in the Braddon and Longman by-elections towards Labor (Crosby 2018), the low turnout and high informal vote in Perth and Freemantle by-elections (Hondros 2018), however returned very confusing results with the very high level of volatility in Wentworth: that Kerryn Phelps' vote was extremely volatile was clearly observable, and thus we knew that the numbers were going to move in the last week, but the direction of her numbers and who they were going to come from or go to was not clear (J-Wire Newsdesk 2018). The Momentum Tracker numbers have not been published on the Voter Choice Project blog (Crosby 2017) with other results due to the highly experimental nature and likely significant impact on campaign behaviour and reporting.

The other scale being utilised is the Big 5 personality index of BFI. A "crude scale" for Neuroticism was part of the original Columbia studies (Berelson, Lazarsfeld, and McPhee 1954, 373), thus the BFI is an appropriate update. This scale is being used by a number of major studies, such as the American National Election Study, with interesting results. Core personality traits, known as the 'Big Five' dimensions of personality (i.e. extraversion, agreeableness, conscientiousness, emotional stability - previously labelled neuroticism, and openness to experience) (Costa and MacCrae 1992; Gosling, Rentfrow, and Swann Jr 2003), have received considerable attention regarding their influence on shaping political attitudes (e.g. Bakker, Rooduijn, and Schumacher 2016; Gallego and Oberski 2012; Gerber, Huber, Doherty, Dowling, et al. 2011; Gerber, Huber, Doherty, and Dowling 2011; Gerber et al. 2013; Mondak and Halperin 2008; Mondak 2010; Mondak et al. 2010; Vecchione and Caprara 2009). The drive to participate in politics may be completely independent of campaign exposure, particularly for those with high levels of extraversion or openness to new experience (Dawkins 2017).

Extraversion and openness to new experience have consistently been found to have a direct effect on political participation (Dawkins 2017; Mondak et al. 2010;). Extraverted people are more likely to be partisan and engaged, exploring all options before resigning themselves to switch from a party that has disappointed them. Open to Experience voters are more likely

to consider new and unknown alternatives, or if partisan, engage in constant rational updating of information to confirm their vote intent (Bakker et al. 2016). Agreeableness, conscientiousness and emotional stability are inconsistent personality traits for predicting voter behaviour. Voters with high levels of conscientiousness like order and are resistant to change, are motivated by feelings of civic duty, but are paradoxically the most likely not to vote if they feel another obligation such as family responsibilities or work is the higher duty and thus civic engagement is a luxury. Voters with high levels of agreeableness tend to be trusting and most susceptible to campaign messaging or active in campaigns, and may be loyal partisans because they like being 'part of the team', but also have a high desire to avoid conflict which translates no indicative correlation on voting behaviour. Emotional stability is a spectrum from stable to neurotic: neurotic people are most responsive to emotional campaign cues particularly in intense campaigns, are most likely to become angry with a party who has disappointed them, but simultaneously most risk averse, and the most likely to eschew social norms and not turn out to vote. Emotionally stable people react neither to campaigns nor social forces (Dawkins 2017; Bakker et al. 2016).

There has already been some indication from the Voter Choice Project's early results that personality is significant in voter behaviour in Australia, particularly in partisan commitment and reaction to political confrontation, however the value of including this aspect in the study will not be known until after the election, at which time the entire dataset will be re-evaluated from this perspective.

Designing the Voter Choice Project

The broad principles of Lazarsfeldian Methodology were central in designing an online study for an Australian election, based on the original Columbia panel studies of voter behaviour, and incorporating the Mushiness Index and Momentum Tracker and the BFI, for what became known as The Voter Choice Project. The exceptionalism of the Australian context must be noted, and due care was taken to not impose US models with their assumptions, but design an Australian specific approach. Not knowing when the election would be, compulsory voting, preferences in our single transferable vote system and the related use of how to vote cards, cultural and terminology differences, all needed to be accounted for. While these aspects were included, uniquely U.S. aspects of the original study - such as

focus on the presidency - were appropriately altered or excluded, and context elements – the issues that factor, social structure, and media consumption patterns – were updated to a 2018 Australian context. Extensive research of current studies, including the Australian Election Study, Vote Compass, Your Vote, the Australian Survey of Social Attitudes, HILDA and other contemporary studies of Australian politics and social values, was conducted to find both appropriate questions and identify weaknesses in the current available data. Recent panel studies such as the Cooperative Congressional Panel Study in the U.S., German Longitudinal Election Study, and the British Election Study panel, were reviewed as part of the adaptation, as well as other major national election studies like the Canadian Election Study, New Zealand Election Study, and the American National Election Study.

Many of the family and friend influence questions use identical or similar language to the original Columbia studies. However, questions on work, religion, ethnicity and gender have all been significantly updated; for example questions implying husbands are either the primary breadwinner or the 'head of the household' have been apropriately altered or eliminated. In a number of cases the questions were developed beyond what is currently used in most Australian surveys, such as including 'unpaid work at home' as an option for stay-at-home parents and carers in the occupation question; and using the New Zealand Election Study's religion identification question format which presents Christianity as one option of many, with a second question on denomination, rather than excluding or 'othering' non-Christian religions. A non-binary or agender option is included on the gender question; disappointingly, however, the optional text box for non-binary identifying people to write in their own gender indentity, which was well used and revealing, and feedback from the gender queer community indicated was appreciated, had to be removed. It was distracting for some who found its presence offensive and were using the space to express their displeasure, usually followed by further abusive comments and/or the respondent dropping out of the survey.

Note was taken of the Huckfeldt & Sprague's (1995) findings that every voter is unique, the Burns (1961) observation that the 'unlooked for luxury' of detailed comments went around the direct questions asked, and Hazel Gaudet's (1955) original 1939 guidance to interviewers in the Erie Country study to elicit as much information as possible from respondents. While it will never be as good as an intrviewer probing along a specific line of

inquiry, each question block of the Voter Choice Project has an open question 'do you want to say anything else on <this subject>' at the end. The aim of this is to replicate the liberty of a respondent being able to say anything and have it recorded if they were being interviewed in person, or write down the side of the page on a paper survey. The responses to these open probing questions have proven invaluable, providing context, explanation and deeper insight to almost every subject explored.

Would you like to say anything else about the NBN?

Figure 1: Example of the 'anything else' probe questions at the end of each question block in the Voter Choice Project

The resulting design of the Voter Choice Project panel study had the following key features:

- A multi-wave panel - a minimum seven waves as per the original Erie County design, up to 16 waves, flexible to the electoral calendar through movable question blocks and droppable waves.
- The first four surveys were around 20 minutes in length, remaining surveys average closer to 10 minutes completion time, to minimise attrition.
- Three repeating blocks to test the core aspects of sociological theory, as well as test-retest on key variables in multiple waves, as per the original Columbia studies.
- Different question blocks in each wave to test other theories, cleavages and issues, as well as assisting in reducing panel attrition by providing variety.
- Liberal use of open text questions, 'don't know' and 'other' options on multiple choice questions.
- Interlocking question sets to determine volatility of opinion and validate responses.
- Non-judgemental, empowering language to make all respondents feel valued, heard and important, repeatedly encouraging them to say whatever they like, and as much as they like.

In addition to testing the Sociological Columbia voter behaviour theory, and other significant theories as described above, the design of the study tests a large number of cleavages and issues. These include:

- class (including socio-economic status, employment, education and income),
- religion,
- gender,
- age,
- ethnicity,
- minority,
- geography,
- community involvement,
- media use, and
- partisanship.

The issues being specifically tested in their own question sets include:

- the NBN (national broadband network),
- Adani's proposed Carmichael coal mine,
- welfare including the Robodebt[2] issue,
- energy,
- drought,
- Indigenous reconciliation and the Uluru statement,
- refugees,
- Australia becoming a republic,
- corruption and the need for a federal anti-corruption body,
- housing,
- health including the legalisation of medicinal marijuana,
- crime, and
- public transport.

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[2] 'Robodebt' was the name given to an Australian Government policy of data-matching to identify welfare recipients, and sending them automated debt notices. (See Pett and Briefing 2017)

Natural experiments through snap polls or additional question blocks dropped into the next survey are planned for any major 'cycle breaking' events, one has already been conducted for the change of Prime Minister, and there will be at least one more for a leaders' debate in the final weeks of the election.

Timing was a significant concern in the design of the Voter Choice Project. Australia does not have any natural decision point landmarks, such as an equivalent to the American Super Tuesday or the nominating conventions, around which to schedule surveys. The only natural decision point is when the election is called and thus attention is focused, and in an Australian federal election there is no knowing when exactly that will happen. This cycle presented the added complication of a ten-month window in which the federal election could be held. For this reason, the study began in June, to ensure the minimum number of waves could be conducted before the earliest election date of August 8, 2018, with a flexible schedule that could adapt for any election date. Monthly surveys are being conducted until the election is called, getting shorter the longer the study continues, with five weekly surveys planned in the formal campaign period. Additionally, the window for response collection has been the subject of some experimentation: originally planned for three to four days, we found in the initial recruitment period that responses were highly vulnerable to outrage at the news story of the day in the current highly volatile political environment, obviously heightened with the Super Saturday by-election uncertainty. We lengthened the window to a week, and then ten days, from Thursday to the following Sunday, both to smooth the reactive responses, and to maximise responses as our highest response days are Thursdays and Sundays. We had a perfect example of this issue manifest again in the December survey currently in the field: the survey was released at 6am on Thursday morning, and the parliament descended into farce that day with filibusters and stunts on the final sitting day of the year (Murphy 2018). Over 500 people responded to the surveys on that day, the evening responses laden with expletives and outrage. Responses on following days have been more reflective.

Challenges affecting the Voter Choice Project

There are two significant challenges that have affected the progress of the Voter Choice Project. The first is the incredibly volatile environment of Australian politics at the moment.

The second is the Cambridge Analytica scandal, which measurably affected recruitment and perception of the study. Six by-elections have been held during the period of the study. Numerous Senators and house members (including a Prime Minister) have also left the parliament during that time, and a number of parties have changed names or restructured since the study began in June (Crosby 2019; Noyes 2018; Moore 2018). It has been essential to approach the task with high level of flexibility to come with this high level of volatility.

A pilot study for any by-elections that came up during that period was included in the original plan. This involved a three-wave study of the by-election contest, with a separate sample recruited for the by-election study. Ultimately, we were unable to conduct a full pilot study before needing to start the main study. The by-election studies for the Super Saturday by-elections switched from being a pilot study to an embedded focus study. This approach was repeated for the Wentworth by-election, with the addition of a single broader poll of non-panel members, to trial a couple of different versions of questions. Both the Super Saturday by-election study and the Wentworth by-election study provided useful insights, both on subject matter and the methods being used, which have been incorporated to the main study.

In addition, it was necessary to make significant changes to the study when the Prime Minister changed in August (Norman and Healy 2018). The political knowledge question on 'who is the Prime Minister' was replaced, and all references throughout the study to former Prime Minister Malcolm Turnbull were removed. A stand-alone snap poll was also conducted immediately after the spill, as it happened just after the completion of the August wave and thus too far away from the September wave to capture the 'in the moment' reaction.

The extent to which the Cambridge Analytica scandal[3] undermined trust and confidence, and thus recruitment to the study, cannot be understated. Estimates and goals for recruitment were dramatically scaled down once the scandal broke in March, and even

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[3] In March 2018, a research company named Cambridge Analytica was revealed to have used personal information harvested from more than 50 million Facebook profiles without permission to build a system that could target US voters with personalised political advertisements based on their psychological profile. (see Cadwalladr and Graham-Harrison 2018; Greenfield 2018)

more so once Facebook CEO Mark Zuckerberg faced a congressional hearing in April 2018 (Romm 2018), however, the volume of social media attacks was, to some extent, unmanageable. Accusations that the study was unethical and even illegal were daily occurrences throughout the initial recruitment process, with far too many Twitter and Facebook threads of people feeling the 'need to warn others' that the Voter Choice Project either was like Cambridge Analytica, or was Cambridge Analytica.

Initial strategy of polite and friendly responses directing to information on the website were ineffective, generally resulting in more accusations and people contacting either my supervisor or the University to verify the study was not 'a scam'. A shift in mid-July to an aggressive defence posture, that is responding hard and fast to anything in the vicinity of an implication that the study was unethical or Cambridge Analytica related, was uncomfortable, but far more effective. Adding 'cambridge' and 'analytica' to the explicit language filter on the Project's Facebook page was also an effective strategy. In addition, the introduction of the Short Surveys from August, active social media engagement and widespread press coverage, have been helpful in building trust and confidence in the study.

The problem of preferences

Australia's single transferable vote (STV) system presents a somewhat unique problem, in that in order to understand the vote fully you need to identify where preferences are likely to flow. Indeed, understanding the preference order is, in and of itself, a significant insight into how a voter perceives the entire electoral landscape. However, in early testing, particularly live cognitive testing (that is, sitting beside a test group participant and interviewing how they interpret each question), it was discovered that the majority of participants did not understand preferencing. This is also backed up by the comments received throughout the study, not least of which was the Wentworth by-election and the very prominent discussions of strategic voting and preference decisions.

Multiple question formats were tried to derive a reliable indication of preferences. Asking straight out who participants intended to direct their preferences to had the worst result, with most believing the question was asking either who they would put second, or who they would put last, and few being able to strategically assess where their vote would end up in a preference count. Asking who they wanted to win government was also a poor indicator,

with minor party voters (Greens and One Nation or Conservative voters in particular) adamant their party could win Government, and 15% of respondents indicating they wanted a hung parliament. Asking who they would put higher, and only giving Labor and the Coalition to choose from was also rejected as a question by far too many respondents.

During the Wentworth by-election, with three candidates above 15% of the vote, and a further two between 5% and 15%, a different approach was taken of asking participants to rank the leading candidates, and then doing an effective preference count. This worked exceptionally well in Wentworth, and thus was adapted to a national question in the November survey. The Two Party Preferred Hypothetical 6 (or 2PPH6) question (see figure 2) asks participants to rank six candidates on largely only party identification information. The use of generic party names is less effective than actual candidate names, with a large number of comments that they would need to know what the independent stood for, and objections to certain minor parties being lumped together.

Pretend these are the only candidates on your House of Representatives ballot paper at the next election. Please rank them in the order you would for them from 1 to 6.

Drag and drop them to put them in order, or change the number in the drop down box on the left.

- Liberal National Coalition candidate
- Australian Labor Party candidate
- The Greens candidate
- Minor right/conservative candidate (e.g. Conservatives, Liberal Democrats, or One Nation)
- Minor left or centre/progressive candidate (e.g. Centre Alliance, Reason or Science Party)
- An Independent candidate

Figure 2: The Two Party Preferred Hypothetical 6 (2PPH6) question as displayed in the Voter Choice Project surveys

Further refinement will be continually undertaken each month to try and get the Hypothetical 6 right: it is certainly a far more accurate indicator than the other preference questions trialled. Feedback from participants and testers was that they understood the question and what was being asked of them, the ranking question mechanism offered by SurveyMonkey was easy to use, and it made them stop and think, which is ideal in trying to get a more genuine reflection of vote intent.

Because of the false indications of the preference questions, a form of reason analysis (qualitatively analysing each response as an individual case study) was developed to try and 'infer' a likely preference if that voter was in a standard Labor versus Coalition seat. This approach was taken in part to be able to produce two party preferred (2PP) numbers, to satisfy the demand of media and participants who are used to assessing results in those terms. It should be noted that the 2PP polling models dramatically undervalue and hide the real rates of change in the electorate, and thus are counter to the Project's aims of revealing individual vote decision and the level of movement in the electorate. This is offset by the rate of change being exposed in vote retention heat map graphs, mapping the movement from one wave to the next (see figure 3). The Inferred Two Party Preferred (I2PP) numbers were, however, highly misleading, very stable figures that have now been discontinued in favour of the Hypothetical 6 method.

Vote retention Oct->Nov

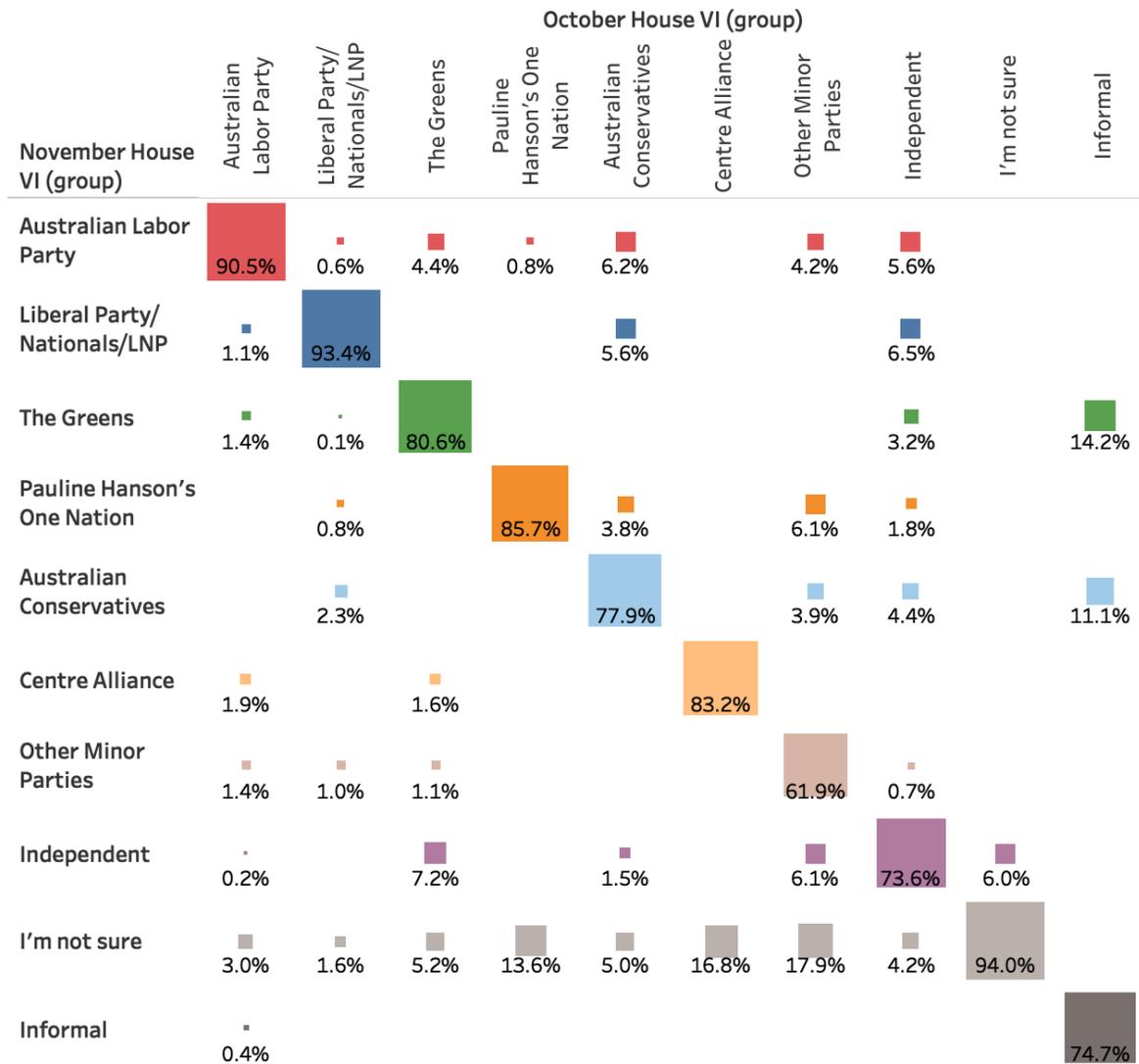| November House VI (group)	October House VI (group)									
	Australian Labor Party	Liberal Party/ Nationals/LNP	The Greens	Pauline Hanson's One Nation	Australian Conservatives	Centre Alliance	Other Minor Parties	Independent	I'm not sure	Informal
Australian Labor Party	90.5%	0.6%	4.4%	0.8%	6.2%		4.2%	5.6%		
Liberal Party/ Nationals/LNP	1.1%	93.4%			5.6%			6.5%		
The Greens	1.4%	0.1%	80.6%					3.2%		14.2%
Pauline Hanson's One Nation		0.8%		85.7%	3.8%		6.1%	1.8%		
Australian Conservatives		2.3%			77.9%		3.9%	4.4%		11.1%
Centre Alliance	1.9%		1.6%			83.2%				
Other Minor Parties	1.4%	1.0%	1.1%				61.9%	0.7%		
Independent	0.2%		7.2%		1.5%		6.1%	73.6%	6.0%	
I'm not sure	3.0%	1.6%	5.2%	13.6%	5.0%	16.8%	17.9%	4.2%	94.0%	
Informal	0.4%									74.7%

Figure 1: Example of vote retention heat map graph: Main panel vote retention from October Wave 5 to November Wave 6. Read horizontally to see where votes have been gained from, vertically to see where votes have been lost to, percentage shown is percentage of October vote intention.

Recruitment, panel management, and validity

Criticism has been made of the study's representativeness due to the non-probability sample, however, while participants are recruited on an opt-in basis from multiple sources, it is a curated sample rather than completely unstructured, and probability can be calculated with a slightly higher than usual degree of variance. With guidance from California polling firm Change Research, targeted advertising on predominantly Facebook, as well as some advertising on Instagram, Twitter and LinkedIn, pushed ads towards target demographics. Beginning with all 18+ people in Australia, as people subscribed ad targeting

was altered towards the gender, age, and electorates or regions where registration rates were lower. After each wave, the panel composition is reassessed (accounting for new registrations and withdrawals), and targeting altered appropriately to keep rebalancing the panel to a representative sample. The end result is a curated panel that is relatively well balanced on gender, age and includes voters from each of Australia's federal 151 electorates, requiring little post-stratification and minimal weighting. There is currently an under-representation in women aged 25 to 40, and Victorian voters are slightly under-represented due to the lack of a by-election in the state giving the study a natural entry point, and the difficulty of competing with the state election in November for both media coverage and advertising. The forewarned lack of older voters for an online study has proven to be a falsehood, with strong participation up to the mid 70s. The oldest participants are 94 years old.

However, the curated recruitment strategy is not perfect. Facebook is by far the most effective of the platforms for yielding results, but partisan targeting – targeting by those who like a page, or follow a politician – is not just ineffective, but counter-productive. The ideological groupings (Conservative, Libertarian, etc.) that can be targeted work reasonably well in the U.S., but do not to work at all in Australia. All attempts to target Liberal Party voters – the only partisan identification significantly under-sampled in the panel – have resulted in more people who despise the Liberal Party registering, in particular Australian Conservatives, Pauline Hanson's One Nation and similar right wing minor party supporters, and a high number of Independent voters. (Coalition voters currently comprise 20% of the panel, they were 42.04% of the vote in 2016 (Australian Electoral Commission 2016)). This can be explained in part by voters lying about who they voted for in 2016, or perhaps they genuinely don't recall, and have switched affiliation since that election; and in part by the Liberal Party being notoriously poor users of social media. However, as Facebook refuses to admit there is a problem with their targeting, and refuses to be of any assistance or accept repeated offers of help to identify what the problem is and refine their partisan targeting in the Australian market, this cannot be resolved. It should be noted, however, that under-representation of Coalition voters and over-representation of Greens voters is a common experience in online polls and studies in Australia.

Twitter political profiles are notoriously followed more by people who don't like the owner more than those who do, however targeting very conservative journalists has been mildly successful. The average cost of acquisition of a panellist from Twitter is around $12 with plenty of likes and retweets not converting to registrations, while Facebook is closer to $1.30 from most campaigns with both a high click through and conversion rate. Gaining earned media coverage in print is not very effective in generating participants and thus a poor use of time, but a combination of broadcast and online presence from the broadcast media outlet (such as them tweeting about the interview) has resulted in the most significant signup spikes.

Attrition, that is the withdrawal of respondents in subsequent waves of the panel, has been at a very manageable level, with new registrations for the panel thus far exceeding the number of people leaving the study by unsubscribing. In August, in part to build trust and confidence in the study, and to assist in recruitment and retention, short surveys of seven to twelve questions on a theme were introduced to run alongside the panel surveys. These short surveys empower people to participate anonymously, thus negating the privacy concerns associated with the Cambridge Analytica scandal, and build trust by allowing people to try what our questions are like before committing to joining the panel. They also served to boost the sample for individual blocks, and act as a live and refreshing control sample for each question block. In addition, a panel member short on time can do a short survey on the part they are interested in, rather than the whole monthly survey. The approach has been largely successful, and contributed to increasing panel numbers each month.

Non-response is becoming a concern, with more than thirty per cent of the panel not completing the October or November surveys. Various strategies including highly salient or controversial subjects for the short surveys will deployed through to March to increase the participation rate and the overall panel numbers. The results of each wave that are posted on the blog are weighted for that survey by age, gender and reported 2016 vote; however, only respondents that complete election day survey, and thus provide the dependent variable of who they actually voted for, will be included in the re-analysed data for my PhD thesis.

The integrity and composition of the panel is crucial for internal validity of the study. In addition to the various recruitment and panel management strategies already noted, the panel members' personal details were managed in a different system, on a completely separate server from the survey responses. This robust measure was to ensure that, if either database was hacked, the identity of the respondents (other than their email address) was not associated with their responses, a form of automatic de-identification during a long-running panel study.

In this separate panel management system, we initially verified each respondent against the electoral roll. This was problematic on two fronts: younger and inner-metropolitan voters notably pushed back against handing over the level of identifying information necessary for us to look them up on the Australian Electoral Commission's (AEC) system, and the AEC's system is far from perfect. The issue of roll divergence, where voters on state rolls are not on the federal roll, I would contend is considerably greater than the approximately 600,000 mostly NSW and Victorian voters that the AEC reported to Senate Estimates in 2017 (Australian Electoral Commission 2018, 16). In attempting to verify voters, we had the greatest trouble with Western Australian voters. Additionally, an arguably unacceptable level of inconsistency in legal names and abbreviations (e.g. Mount in full or Mt), spelling errors in both individual and street names, and entire streets not in the AEC system, were all cause for significant frustration. In August, we removed the requirement for participants to be verified against the electoral roll as there was no justifiable reason to subject the study to the ongoing criticism, nor continue to exclude participants who were concerned about privacy, when there was a reasonable chance we would not be able to verify the individual participant. Most participants do continue to volunteer all their details, and currently 78% of participants have been verified on the electoral roll.

Technical issues

Doing something for the first time always involves some growing pains, and the most significant lesson learned thus far is there is no ideal product available on the market for conducting a study of this type. Several panel specific survey products were evaluated, most asking for fees in the vicinity of half a million dollars, and all had deficiencies. Ultimately it was decided to manage the panel membership and survey responses on separate systems for a fraction of the cost and with higher security, although it has been far from ideal. The

first two months' surveys were conducted in Qualtrics, a relationship that came to a very sour end after numerous minor technical issues, such as people getting reminders they should not have, were dwarfed when logic across the entire suite of 8 live surveys in the field stopped working, twice, and on both occasions technical support did not respond until after the response window was closed.

The original version of the study deployed in June and July stayed very close to the original Columbia vote decision questions, particularly for those who had changed their vote from one survey to the next. However, with an unacceptable level of complaints from participants, the complex logic was removed and questions simplified when we transferred to SurveyMonkey in August. Testing is currently being undertaken to try and re-introduce that critical aspect of the study for one wave only in the formal campaign period. Other questions that relied on logic pulling from answers in previous waves were abandoned.

Conclusion

The Voter Choice Project is an experimental nationwide panel study, and the first Columbia study undertaken in Australia. An online panel format is ideal because it is the most effective way to manage a national panel, is affordable, and assists in reducing attrition. The design of the questionnaires has respected the original Columbia principles, focusing on the why and fusing qualitative and quantitative measures in the same survey tool, while incorporating current day issues and concerns that affect voter thinking, more advanced personality profiling and measurement of opinion and vote intent volatility. Some original questions have been retained, others borrowed from contemporary political studies and polls around the world, and some new ones introduced. Panel recruitment is curated using targeted online advertising, and panel membership increases each month through snowball recruitment using short surveys. The methodology created for the study is one centred on capturing the uniqueness of the voter, coping with volatility, and being prepared for the unexpected and unknown, all of which is achieved through the flexibility of the structure of the study, the fused quantitative/qualitative methods, and facilitated by online panel technology.

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