Heuristics and political elites’ judgment and decision making

Accepted for publication in *Political Studies Review*

**Barbara Vis**

* Address for correspondence until 31 August 2017: Department of Political Science & Public Administration, Vrije Universiteit Amsterdam, de Boelelaan 1081 HV Amsterdam, the Netherlands, b.vis@vu.nl, www.barbaravis.nl, www.highriskpolitics.org.

* Address for correspondence per 1 September 2017: Utrecht School of Governance, Utrecht University, Bijlhouwerstraat 6, 3511 ZC Utrecht, b.vis@uu.nl, www.barbaravis.nl, www.highriskpolitics.org.

**Abstract**

It is broadly assumed that political elites (e.g., party leaders) regularly rely on *heuristics* in their judgments or decision making. In this paper, I aim to bring together and discuss the scattered literature on this topic. To address the current conceptual unclarity, I discuss two traditions on heuristics: (1) the *heuristics & biases* (H&B) tradition pioneered by Kahneman and Tversky and (2) the *fast & frugal heuristics* (F&F) tradition pioneered by Gigerenzer and colleagues. I propose to concentrate on two well-defined H&B heuristics – *availability* and *representativeness* – to empirically assess when political elites rely on heuristics and thereby understand better their judgments and decisions. My review of existing studies supports the notion that political elites use the availability heuristic and possibly the representativeness one for making complex decisions under uncertainty. It also reveals that besides this, we still know relatively little about when political elites use which heuristic and with what effect(s). Therefore, I end by proposing an agenda for future research.

**Key words**

Political decision making; political judgment; political elites; availability heuristic; representativeness heuristic; fast & frugal heuristics; heuristics & biases
1. Introduction

When taking decisions or making judgments (i.e., assessing situations that oftentimes precede decision making, Newell et al. 2015: 20), individuals regularly apply heuristics: cognitive shortcuts or rules of thumb (see Gilovich et al. 2002). Much literature focuses on the heuristics voters use, for instance in their information search (Bartels 1996; Redlawsk 2004) or preference formation (Bang Petersen 2015). Compared to this large literature that examines empirically the heuristics voters apply, the body of work studying empirically the heuristics applied by political elites – e.g., members of cabinet, party leaders, or members of parliament (MPs) – is much more scant (exceptions include Böhmelt et al. 2016; Jacobs 2011; Kropp 2010; Laver and Sergenti 2012; Weyland 2007, 2014).¹ Political elites make judgments and decisions in an environment that differs from that of ordinary citizens. Elites typically have more resources and support staff, which may enable more accurate judgments and decisions (Jacobs 2011; Weyland 2014). Political elites’ motivation to arrive at an accurate judgment may also be higher, stimulating higher-effort reasoning and a more systematic mode of processing (Jacobs 2011). Another, related difference is that ordinary citizens usually face too little information to make a “comprehensively rational” choice (Gilovich & Griffin 2002: 3), whereas political elites regularly face too much information. A large majority (74%)² of Belgian politicians, for example, are overwhelmed by the information they receive on a daily basis (Walgrave et al. 2013: 22), making it plausible that they turn to heuristics for managing this complexity. It goes beyond this paper’s scope to explore the differences between ordinary citizens and elites in more detail. Still, this possible difference is one reason to concentrate on political elites’ use of heuristics.

¹ Hafner-Burton et al. (2013) could be another example, but their definition of elite is broader than the one I adopt here.

² Of the 85 Dutch-speaking members of the Belgian federal parliament, [junior] ministers, and party chairpersons.
Various strands of literature on political elites’ judgment or decision making pay attention to some heuristic (e.g., Allison and Zelikov 1999; Kingdon 1989; Matthews and Stimson 1975). Because these studies vary substantially in how they define the term heuristic, their findings are difficult to compare. Moreover, instead of empirically testing whether political elites rely on heuristics, such studies typically assume (for instance because of incomplete information) that a heuristic has been employed. Establishing empirically that political elites have used a heuristic instead of simply assuming that they have is challenging (cf. Lau and Redlawsk 2001).

Against this backdrop, my objectives are threefold. First, I address the lack of conceptual clarity by discussing two main traditions on heuristics: (1) the heuristics & biases (H&B) tradition pioneered by Kahneman and Tversky (e.g., Gilovich et al. 2002; Tversky and Kahneman 1974), and (2) the fast & frugal heuristics (F&F) tradition pioneered by Gigerenzer and his colleagues (e.g., Gigerenzer 2001, 2015; Gigerenzer and Selten 2001). While both traditions have their merits, I argue that two clearly defined, general-purpose heuristics (Gilovich and Griffin 2002: 3) from the H&B tradition – availability and representativeness – are especially relevant to political decision making. Knowing more about the conditions under which political elites rely on these heuristics – which underlie many others – will further our understanding of political judgment and decision making. It does so because it helps to explain in the face of uncertainty which issues or proposals are likely to reach to the political agenda (through availability). And which ones are likely to be perceived as being able to solve the issue at hand (through representativeness). My second objective is to bring together and discuss a selection of studies on political elites’ reliance on heuristics. Hereby, I focus mainly – but not exclusively – on the availability and representativeness heuristics. This review

3 Scholars from the F&F tradition probably disagree with this statement (cf. Kelman 2011: 85).

4 For instance, the representativeness heuristic subsumes the coalition-based heuristics (Adams et al. 2016; Fortunato and Stevenson 2013) and the party heuristic (see Lau and Redlawsk 2001) that voters apply.
shows that political elites indeed rely on these heuristics, but also that we know very little about the conditions under which a specific heuristic is used (except for the general finding that complexity and uncertainty matters). The third and final objective is therefore to bring the discussion forward by outlining an agenda for future research.

2. What is a heuristic? Different traditions, different answers

*Heuristic* is a broad term that, according to Shah and Oppenheimer (2008: 207), ‘has been used to describe nearly everything’. In the game-theoretic literature, for example, a heuristic is defined as ‘a method or rule for solving problems’ (Peyton Young 2008: 1). And in the agent-based modeling literature as ‘decision-making rules of thumb that can in practice be very effective but can never be proven formally to be the best responses to any conceivable state of the world’ (Laver and Sergenti 2012: 25). Political scientists typically state that an individual employs a heuristic if she takes a decision based on anything but full information. Because *more* information is always possible, ‘nearly anything can be construed as a heuristic’ (Druckman et al., 2009: 494). This not only makes what is a heuristic unclear (cf. Shah and Oppenheimer 2008), but also impairs the accumulation of knowledge.

So how to define heuristics? Who may be seen as the founding father of heuristics, Herbert Simon (1990: 11), defines them as ‘methods for arriving at satisfactory solutions with modest amounts of computation’. The two traditions on heuristics mentioned above each build on Simon’s definition. Let me first discuss the traditions in some more detail. The H&B tradition emphasises how and why using heuristics typically results in judgments or decisions that are suboptimal compared to a normative standard. This standard is oftentimes expected utility theory (Von Neumann and Morgenstern 1944) or another variant of comprehensive rationality theory (Gilovich and Griffin 2002). The F&F tradition, conversely, is interested in how and why fast and frugal heuristics regularly allow people to make judgments or decisions that “fit” their environment and that are thereby
ecologically rational (Gigerenzer 2001; Goldstein and Gigerenzer 2002). Limitations of knowledge and computational capability need not be a disadvantage. In fact, these scholars argue that if an environment is highly complex, using a heuristic may yield better decisions. Another contrast is that much research in the H&B tradition assumes that heuristics are used automatically and largely unconsciously, per dual-process theories of mind’s “system 1” reasoning (Kahneman 2011; Kahneman and Frederick 2002: 51-52; Stanovich and West 2000). The F&F tradition, conversely, generally assumes that heuristics are employed consciously (Gilovich and Griffin 2002: 16-17), more in line with “system 2” reasoning.

These characteristics are recognizable in the respective definitions employed. The F&F tradition defines a heuristic as a strategy that ignores ‘part of the information, with the goal of making decisions more quickly, frugally, and/or accurately than more complex methods’ (Gigerenzer 2015: 112). Frugality plays no role in the H&B tradition. Instead, the latter defines a heuristic as a substitution of an object’s property with something that comes more readily to mind. A heuristic mediates judgment when people assess ‘a specified target attribute of a judgment object by substituting another property of that object – the heuristic attribute – which comes more readily to mind’ (Kahneman and Frederick 2002: 53, emphases in original). Such substitution clearly takes place in the availability and the representativeness heuristics from the H&B tradition.

People employ the availability heuristic (Tversky and Kahneman 1973) when they assess how likely it is that something occurs (e.g., a new party entering office) by focusing on the ease with which they can think of occurrences of it (new parties that were successful in entering office). For example, in Weyland’s (2014) study on the spread of political regime contention since 1848, the

---

5 This characteristic relates to the approach to heuristics in the game-theoretic and agent-based literatures.

6 Also some H&B researchers argue that heuristics can be employed consciously (see Gilovich and Griffin 2002: 5).
striking, vivid example of regime collapse in a neighboring country (availability) positively influenced citizens’ willingness to protest themselves.

People use the *representativeness heuristic* when they assess to which degree phenomenon A (like population ageing in Europe) resembles phenomenon B (population ageing in the Netherlands) (Kahneman and Tversky 1972; Tversky and Kahneman 1974). Statements such as ‘She will win the election; you can see she is a winner’ (Kahneman 2011: 150) indicate that someone relies on representativeness, same as when someone judges ‘the potential leadership of a candidate for office by the shape of his chin or the forcefulness of his speeches’ (Kahneman 2011: 150). Also politicians who think negatively about whole groups of people – for instance Muslims – because of the activities of some of them rely on representativeness.7

3. Political elites’ reliance on heuristics, and their effects

As noted above, in many studies on political elites’ judgment or decision making, heuristics play some role. Such studies generally argue that political elites rely on a heuristic when facing too many decisions (information overload), when the information is poor, and in the presence of uncertainty (Sullivan et al. 1993: 978). These studies can be placed in the bounded rationality literature (e.g., Jones 2001; Simon 1955). Examples include Matthews and Stimson’s (1975) study of the heuristics United States legislators employ (see also Kingdon 1977, 1989), studies on how elites use information in foreign policy making (e.g., Allison and Zelikov 1999), and work building on Lindblom’s (1959) notion of policy incrementalism.8 Also in the economic voting literature (Nadeau et al. 2002; Powell and Whitten 1993; Whitten and Palmer 1999), a decision-making shortcut is identifiable on

7 This can be both a decision-making shortcut and a consciously invoked strategy to appeal to some voters; the crux is how to establish which one it is.

8 The latter strand of work typically studies bureaucrats instead of political elites.
the side of political elites. Their assumption that voters vote economically makes them try to change the economy for the better, for instance by creating jobs or by public investments that boost economic growth, especially shortly before an election. Such behavior can give rise to political business cycles (Franzese 2002). Except for the general statement that political elites do seem to rely on heuristics, these studies’ findings are difficult to compare and accumulate given their different definitions of heuristics. Moreover, as indicated, this work typically assumes instead of showing empirically that political elites use heuristics. An exception to this last statement is Kropp (2010), who aims to demonstrate German MPs’ reliance on heuristics when they scrutinize EU policy-making. Kropp finds that MPs use a heuristic whenever they try to reduce complexity, but it remains unclear how exactly she established this. To further the discussion on political elites’ use of heuristics, it makes sense to zoom in onto a select number of well-defined yet broad heuristics that are especially useful for political judgment and decision making. Availability and representativeness are precisely that.

*Do political elites employ the availability heuristic?*

Let us first assess whether political elites rely on the availability heuristic. The short answer is *yes*, they do. Focusing on leading policy makers in Latin America, Weyland (2007) demonstrated that the readily availability of Chile’s bold and novel pension system put this model on their policy agendas. It were factors like geographic and temporal proximity – that is availability – that influenced the policy makers’ decisions, rather than a logical evaluation of which model would be best (see also Weyland 2008). In his 2014-book, Weyland reconstructed the employment of the availability heuristic (and the representative) heuristic during three key waves of democratic contention using qualitative sources like contemporary participants’ reports, diaries and eyewitness accounts. In personal

---

9 Chile’s bold pension reform was probably an inappropriate model to follow for many Latin American countries (Weyland 2007).
communication, Weyland indicated that for operationalizing the availability heuristic, he focused mainly on disproportionate attention, references, and the subjective assignment of importance to a dramatic, vivid precedent (like the overthrow of the French King in 1848). Simultaneously, he assessed whether there were no references to other “objectively relevant” precedents (such as the revolutionary waves in the Italian states in the same year). Through this approach, Weyland (2014) demonstrated that political elites indeed rely on the availability heuristic. This finding is corroborated by the, to the best of my knowledge, first quantitative study on the availability (and representativeness) heuristics by Böhmelt et al. (2016). Böhmelt and colleagues found a significant, substantively important effect of foreign incumbents’ party positions on the policy position of >200 domestic parties from 26 countries between 1977 and 2010.10 Importantly, their large-n set-up allowed for testing what political elites did not rely on.

While Jacobs (2011) did not employ this term himself (contrary to Weyland and Böhmelt et al.), also his study on the establishment on contributory pension schemes in Germany, Britain, the United States and Canada supports political elites’ employment of the availability heuristic. In Jacobs’ account, this heuristic entered through policy makers’ prior causal ideas. He showed that what available shaped crucially what was considered.

Do political elites employ the representativeness heuristic?

The empirical evidence suggesting that political elites rely on the representativeness heuristic is more mixed. Supportive evidence comes for example from Weyland (2007), who demonstrated that leading policy makers’ employment of the representativeness heuristic explains why so many countries in Latin America followed Chile’s pension reform; they saw the Chilean success as representative of a larger set of reform successes (see also Weyland 2008, 2014). In personal communication, Weyland

---

10 Böhmelt et al. (2016) do not discuss their finding using this term.
indicated that he identified the representativeness heuristic in the qualitative material for his 2014-book (see above) by looking for emphasis on similarities with a vivid, dramatic precedent and especially through the claim “we can do this too!”. Actors’ assumption that such easy replicability was possible was problematic because it downplayed or neglected differences in the political situation. In fact, the latter resulted in many emulation efforts’ failing. In Böhmelt et al.’s (2016) quantitative analysis, the representativeness heuristic would have been at work if the positions of foreign incumbents had influenced the positions of domestic parties of the same ideological bloc. In that case, say the domestic social democratic party would have adjusted its position to representative foreign incumbents, namely social democratic ones. However, Böhmelt et al. (2016) did not find a significant effect for the positions of foreign incumbents of the same ideological block on a party’s position and thus – contrary to Weyland’s qualitative analyses –, find no support for the representativeness heuristic.11

In Weyland’s work, there is a relationship between the availability heuristic and the representative one, with the former shaping what is on leading policy makers’ radar screen and the latter subsequently shaping how they assess this material. While such a relationship makes sense for a variety of political judgments and decisions, especially regarding institutional change, it is not a necessity. For example, the absence of a co-occurrence of the employment of these two heuristics is supported empirically by Böhmelt et al. (2016), who found support only for the availability heuristic.

Under which conditions do political elites use the availability and representativeness heuristics?

A perhaps more intriguing question is when political elites employ the availability and/or representativeness heuristic(s). Broadly speaking, individuals – including political elites – turn to heuristics when they face a high degree of uncertainty. Given that elites because of, for instance, their larger

11 Böhmelt et al. do not discuss their finding as evidence against the representativeness heuristic.
resources oftentimes face less uncertainty than do ordinary citizens, the former’s hurdle for relying on heuristics is higher. The difference across political elites and ordinary citizens is one of degree, not of kind. Using a broader definition of elite than I adopt here (see note 1), Hafner-Burton et al.’s (2013) review shows that elite decision makers use heuristics more effectively when processing complex information, mainly because of their larger ability to choose with automaticity. This finding supports the difference in degree not in kind notion. Also political elites are “normal mortals” (Weyland 2014: 58, see p. 54) who turn to heuristics at some point, namely when the environment becomes highly uncertain and complex (see also Jacobs 2011). This applies to many political judgments and decisions (see e.g., Bursens et al. 2017). An example is a party strategist who needs to decide on the party’s policy platform; doing this “optimally” is impossible in a multidimensional setting (cf. Laver and Sergenti 2012). Or a government that needs to decide whether to reform the welfare state, or whether to participate in a military intervention. Such decisions are complex – there are numerous factors to consider – and how they play out is uncertain. For these types of decisions, political elites may thus rely on heuristics.

What are the effects of using heuristics?

What, then, are the effects of political elites’ reliance on heuristics? In studies focusing on voters’ decision making, it is regularly assumed that heuristics defined as information shortcuts enable uninformed voters to make decisions as if they were fully informed (e.g., Lupia 1994; Lupia and Matsusaka 2004; Lupia and McCubbins 1998, see Kuklinski and Quirk 2000: 153). According to Lau and Redlawsk (2001: 952), this view on the positive effect of heuristics is so pervasive ‘that we could probably refer to it as the new conventional wisdom’ (emphasis added). This literature tends to neglect the possible biases relating to using heuristics (exceptions include e.g., Bartels 1996; Lau and Redlawsk 2001). As Kuklinski and Quirk (2000: 166) note, by ‘viewing heuristics as rational strategies for deal-
The heuristics and biases tradition, conversely, has focused explicitly on biases in the sense of deviations from comprehensive rationality. Reliance of the availability heuristic biases attention in confirmatory ways (Jacobs 2011: 249, see Lau et al. 1991: 671-672). This is because of individuals’ ‘tendency to seek out and remember dramatic cases or because the broader world’s tendency to call attention to examples of a particular (restricted) type’ (Gilovich and Griffin: 3). The media can function as a magnifier here, because of its focus on what is newsworthy. The latter typically are vivid or dramatic events. What is focused on may then not reflect voters’ preferences (Miller 2009). If attention bias results in some groups’ voices not being considered, because they do not or cannot bring across their wishes vividly, this poses problems for democratic representation.

A bias that is associated with the representativeness heuristic that is particularly relevant for political judgment and decision making is base rate neglect, that is failing to consider how likely a phenomenon’s occurrence in general is. Concretely, this leads to drawing ‘excessively firm conclusions from small samples (…)’ (Weyland 2014: 8), basing conclusions on (too) short time frames, or overlooking the role of chance (see Weyland 2008). Hereby, also relying on the representativeness heuristic may pose problems for democratic representation.

Interestingly, using heuristics poses no problem for democratic representation in the F&F

---

12 The existence of biases does not mean that applying the availability or representativeness heuristic is irrational per se. As estimation procedures, heuristics are sensible (Gilovich and Griffin 2002). Moreover, as stressed by F&F scholars, while the employment of a heuristic deviates from comprehensive rationality it can still be ecologically rational. Whether applying a specific heuristic in a specific context is irrational, and from which perspective, is an empirical question that is beyond the scope of this paper.
perspective. If using a heuristic may trump a more elaborate strategy (see Goldstein et al. 2001 for a discussion of when and why simple [F&F] heuristics work), elites’ relying on heuristics may be good news for democracy. If, for example, an American President is an expert in foreign policy decisions, the first thing that comes to his mind – per F&F take-the-first heuristic – probably produces a good decision. But this will be the case only if this President is truly an expert in this area, since experience does not by itself leads to superior (decision-making) performance (Ericsson and Lehmann 1996: 276).

4. Where to go from here?

For understanding better political elites’ judgments and decision making, it is important to know more of the heuristics they rely on. While the term regularly appeared in existing literature, the conceptual unclarity about what is a heuristic (i.e., how to define the term) impaired the accumulation of knowledge. Moreover, most extant studies assumed that political elites used heuristics instead of demonstrating this empirically. To further the debate, it is important to have conceptual clarity about what is a heuristic, establish what is our current knowledge on political elites’ reliance on heuristics, and indicate where we should go from there.

I discussed two main traditions to heuristics – the heuristics & biases (H&B) tradition of Kahneman and Tversky and the fast & frugal heuristics (F&F) one of Gigerenzer and colleagues –, both of which are identifiable in political science research. I proposed that the H&B tradition’s definition of heuristic as a substitution of an object’s property of something that comes more readily to mind is most appropriate for examining political elites’ judgments and decision making. Therefore, I zoomed in onto two H&B heuristics: availability and representativeness. Given the small-n nature of most existing studies (e.g., Jacobs 2011; Weyland 2008; 2014), it was unclear if the results would travel to a larger set of cases. This made Böhmelt et al.’s (2016) study so relevant, because it provid-
ed the first large-n evidence that they do, at least for availability. When having to make complex judgments and decisions with uncertain outcomes, also political elites rely on heuristics. What the extant studies did not offer—and which they admittedly were not aiming to offer—was a measure of political elites’ employment of the availability and/or representativeness heuristics. To understand better under which conditions which political elites use which heuristic and with what effect, such a measure would be extremely valuable. This measure would help to answer a range of novel, substantive research questions. For example, does the reliance on heuristics vary across types of political elites or by ideology? To what extent does the media or the Internet influence political elites’ reliance on heuristics, and has this changed over time?

The increasing availability of relevant data and possibilities for analyzing such data allows for developing large-n applications to answer these and related questions. Text data would be a useful starting point for such large-n analyses. There are at least two options for using these data: (1) to create a measure of heuristics’ use by individual political actors (e.g., a party leader or member of parliament); and (2) to assess whether the behavior of for instance political parties or governments indicates that they employ heuristics. For option 1, potentially relevant text data include cabinet members’ tweets, parliamentary debates (Proksch and Slapin 2015), and or party leader speeches (Schumacher et al. 2016). To arrive at a measure of an actor’s use of the representativeness heuristic, for example, the text data can be analyzed with (computer-assisted) text analysis tools to identify actor’s references to something that signals a “we can do this too!” claim (such as a reference to success of a sister party abroad or of a rival domestic party). For option 2, possibly relevant text data include party manifestos (Manifesto Research on Political Representation project, Volkens et al. 2015), data on policy agendas collected by the Comparative Agendas Project (e.g., Alexandrova et al. 2014 for the EU’s policy agenda; John et al. 2013 for the UK’s agenda), and press releases (Klüver and Sagarzazu 2016a, 2016b; Van der Velden et al. 2015). Topic modeling, an automated method to
identify topics in texts (Grimmer 2010; Grimmer and Stewart 2013), can be used to identify the topics the political actors focus on, and hereby helps to establish whether they relied on heuristics. To arrive at a measure of availability, for example, researchers need to establish that actors pay disproportionate attention to a typically vivid or dramatic precedent or factor, while simultaneously ignoring (an)other – also, and perhaps even more, relevant – factor(s). Although they do not discuss this themselves, two recent studies suggest that political parties use the availability heuristic when drafting their party manifestos,\textsuperscript{13} with the state of the economy serving as what is available; the “vivid” precedent (Greene 2016; Williams et al. 2016).\textsuperscript{14}

Text analysis allows for creating an indirect measure of political elites’ employment of heuristics. An underlying assumption here is that what political elites say reflects their thinking; an assumption that may be wrong. Moreover, politics is subject to a process of rationalization (Meyer et al. 1997). Text analysis should therefore ideally be complemented by an approach that assesses elites’ thinking more directly: experiments with political elites as participants (cf. Fatas et al. 2007; Linde and Vis 2017). Getting sample of elites to run an experiment that has enough power is challenging, especially for the most powerful elites. However, if such a sample can be obtained, the benefits are very large. One route to conduct elite experiments is to use seminal, well-known so-called problems from the ample existing experiments on heuristics (see Gilovich et al. 2002 for an overview). Another route is to conduct a conjoint experiment (Hainmueller et al. 2014). In the latter case, existing findings on the factors invoking the employment of a specific heuristic (such as vivid information

\textsuperscript{13} Thanks to an anonymous reviewer for pointing this out.

\textsuperscript{14} Note that whereas Greene (2016) finds that when the economy \textit{grows}, parties increase the attention to their economic competence, Williams et al. (2016) find that governing parties pay more attention to the economy in \textit{bad} economic times (worsening unemployment and inflation; economic growth has a non-significant, negative, effect).
invoking the availability heuristic) are the starting point. These factors, including their absence, are then varied randomly and their causal effect estimated by means of the conjoint analysis. The advantage of the latter is that it allows for testing experimentally under which conditions political elites employ which heuristic. Each of these routes could also be included in an elite survey. These methodological ways forward can augment our understanding of political elites’ reliance on heuristics and thereby help to understand better political elites’ judgment and decision making.

Acknowledgements

A previous version of this article has been presented at the Political Psychology Conference Amsterdam, the Netherlands in 2015 and has benefited to the participants’ comments and suggestions. Additionally, I thank Kurt Weyland for his permission to make use of our personal communication on how he identified heuristics in his 2014-book. Also many thanks to the three anonymous reviewers’ extensive and detailed comments.

Funding

This study is funded by a VIDI grant from the Netherlands Organization for Scientific Research (NWO, grant nr. 452-11-005).

References


---

15 Both routes could be followed, yet not on the same data.


Hainmueller, Jens, Daniel J. Hopkins, and Teppei Yamamoto. 2014. “Causal Inference in Conjoint


