

Studying Political Decision-Making Using Prospect Theory*

Barbara Vis

Department of Political Science
VU University Amsterdam
De Boelelaan 1081
1081 HV Amsterdam
The Netherlands
Email: b.vis@fsw.vu.nl
Web: www.barbaravis.nl

31 July 2009

Paper Prepared for the ECPR General Conference, Panel 'Political Psychology: Promising Theoretical and Methodological Innovations' in the Section 'Political Psychology: Understanding Citizens, Leaders, Passions and Conflicts', Potsdam, Germany, 10-12 September 2009

Abstract

Decision-making is at the heart of what governments do, yet our knowledge of the conditions under which particular decisions (and not others) are taken is only scant. Why, for example, do some governments pursue welfare state reforms that may lead to a loss of votes, whereas other governments of a similar political colour and facing similar institutional circumstances do not? How to account for the puzzling variation across governments in welfare state reform?

In this paper, I argue that insights from prospect theory – a descriptively correct, psychological theory of choice under risk – can help to explain what drives governments' behaviour, for example in welfare state reform. Prospect theory suggests that individuals' attitude towards risk depends on whether they face losses or gains. Confronting gains, individuals are risk-averse in their decision-making; confronting losses, they are risk-accepting. Recent findings show that these preferences have an evolutionary origin and are thus hardwired. Experimental evidence indicates that prospect-theory preferences extend to collective decision-making, allowing for the application to political decision-making. The hypothesis derived from prospect theory is that by influencing the risk attitude, and thereby the willingness to pursue risky reform, gains and losses drive governments' behaviour in welfare state reform. A discussion of a recent study (Vis forthcoming) offers empirical support for this hypothesis. Finally, the paper elaborates on what prospect-theory has to offer for other studies into the decision-making of governments or other political actors.

1. Introduction

A large part of what governments do is decision-making. The range of issues governments need to make decisions on is very wide. To name but a few, they can decide to increase the pension age, lower it, or leave it unaltered; to invade enemy countries or not; and – more recently – to bail out banks or not. Often, there appears to be some kind of economic and/or rational logic behind the decisions taken. An example includes the United States government's decision to spend billions buying up minority stakes in leading banks such as Goldman Sachs, JP Morgan, and Citigroup. If the government had not done so, these banks could very well have followed Lehman's lead and gone bankrupt as well – with major negative consequences for the US economy. Also in welfare state reform, such logic seems to guide governments' decisions. A proposed increase in the pension age, such as currently being discussed in among others the Netherlands, may seem a rational decision. Without it, the country's public pension system might not be affordable in the long(er) term. The widespread idea that governments' decision-making in (almost) all areas is logical is probably one of the reasons mainstream economists find the question of *why* governments reform a trivial one. There is, however, good reason to question the trivialness of this issue. Yes, some – perhaps even most – decisions may be quite logical, this does not mean we understand under which conditions they are adopted. In fact, such knowledge is only scant. Why, for example, do some governments pursue welfare state reforms that may have a logic to them, but which also include a major risk of electoral losses (such as increasing the pension age), while other governments of similar political composition and facing similar institutional constraints and opportunities do not? As for example illustrated by Vis (2009), there is a substantial variation across governments in the reforms they pursue that current approaches have difficulty accounting for. What makes a government act?

Prospect theory, a psychological theory of choice under risk, seems very promising for arriving at a systematic explanation of governments' decision-making. In fact, as will be demonstrated below, although the use of prospect theory in political science is still quite rare (Boettcher 2004; Levy 1997; 2003; McDermott 2004; Mercer 2005), this theory is particularly apt for accounting for the situations in which political actors typically find themselves: the situations in which decisions have to be made under conditions of uncertainty and risk. Prospect theory is so useful precisely because for understanding the

decisions governments take, the degree of risk they are willing to take is crucial (cf. Vis 2009; 2010).

The rest of this paper is structured as follows. First I discuss some of the key features of prospect theory. These central characteristics are rooted in decision-making heuristics and biases, which in turn have evolutionary roots. Because prospect theory is developed as an individual theory of choice, is it not obvious that it can be applied to governments' decision-making – a collective actor. In the subsequent section, I therefore elaborate on some empirical and experimental evidence showing that prospect theory can indeed be applied to this end. Next, I present an overview of studies in political science that have used prospect theory. This discussion provides insights into the explanatory power of prospect theory and suggests how the theory can be applied to account for decision-making in welfare state reform. The section that follows illustrates how this works by discussing the welfare state reforms in the area of labour market policy pursued by over 20 British, Danish, Dutch, and German governments between 1979 and 2005. The final section concludes.

2 Prospect theory

Central finding and behavioural biases

Three decades ago, Kahneman and Tversky (1979) developed prospect theory as a behavioural alternative to expected utility theory (see also Kahneman & Tversky 2000). Prospect theory's central finding is that individuals are cautious in their decision-making (that is risk averse) when facing favourable prospects (gains), but tend towards bold decision-making (risk acceptance) when confronting threats to their well-being (losses). This finding is based on experimental research and rooted in several heuristics and biases in decision-making, such as people's aversion to losses, their tendency to hold on to the status quo, and their preference for certainty over uncertainty (see Kahneman & Tversky 2000; Jones 2001; Gilovich, Triffen & Kahneman 2002; Weyland 2006).

Prospect theory has certain characteristics that distinguish it from other theories, such as expected utility theory on which rational choice (institutionalism) is based. A principal feature of prospect theory is that it posits that individuals' risk tendency varies across contexts, with them being risk averse in the domain of gains and risk acceptant in the domain of losses. This means that the propensity to take risks is thus not a stable

personality trait; with some individuals are prone to take risks while others always steer away from them. Instead, individuals' risk propensity is shaped by the situation. Individuals use a reference point, usually the status quo, to establish whether they find themselves in a domain of losses or of gains. The risks an individual is willing to take do not only depend on the context, but are also asymmetric. Specifically, because individuals are *loss averse*, losses weight more heavily than equal gains since 'losses loom larger than gains' (Kahneman & Tversky 1979: 279) and 'losses hurt more than equal gains please' (McDermott 2004: 298). Individuals adapt more rapidly to positive changes in their situation (such as a pay rise) than to negative ones (such as a pay cut), and losing twenty euros hurts more than finding twenty euros pleases. In general, loss aversion favours stability over change. An implication of loss aversion '(...)' is that individuals have a strong tendency to remain at the status quo, because the disadvantages of leaving it loom larger than advantages' (Kahneman, Knetsch & Thaler 2000[1991]: 163; see also Samuelson & Zeckhauser 1988). Because the status quo is imbued with special legitimacy (see Kahneman, Knetsch & Thaler 1990), individuals '(...)' defend it more fiercely against threats of losses than they seek further improvements' (Weyland 2002: 40-41). Loewenstein and Adler (2000[1995]) show that people are unaware of this so-called *status quo bias*. The hypothesis to be derived from this is that voters are more likely to punish incumbent governments when they are dissatisfied than to reward them when they are satisfied. Loss aversion also relates to the *endowment effect*, which is the 'reluctance of people to part from assets that belong to their endowment' (Kahneman & Tversky 2000[1984]: 13; see also Kahneman et al. 2000[1991]).

The so-called *negativity effect*, which sums up the 'losses loom larger than gains' proposition, aggravates the status quo bias. A negativity effect refers to 'the greater weight given to negative information relative to equally extreme and equally likely positive information (...)' (Lau 1985: 119). Some authors doubt if a negativity effect is present at the aggregate level, while possibly being present at the individual level. In fact, this is one of the central findings of Radcliff (1994) who shows that unhappy voters rather abstain from voting than vote against the president's party in the US. Consequently, this party is more consistently rewarded for economic achievements than punished for economic failures. Still, Radcliff (1994) tests the influence of the economic situation on the incumbent party's electoral fortunes on the presidential level only. The effect on different

levels or in different political systems may thus very well differ.

Another heuristic at work is the *certainty effect*, which means that ‘people overweight outcomes that are considered certain, relative to outcomes which are merely probable’ (Kahneman & Tversky 1979: 265). The deviations from the expected utility theory’s predictions occur because of the combination of the above biases and heuristics: loss aversion, the status quo bias, the negativity effect, and the certainty effect (see also Jones 2001; Gilovich et al. 2002; Jervis 2004).

Going back to the roots: On the origin of behavioral biases

Why do people display these biases in decision-making? We know increasingly how individuals behave. They are – to use the title of the bestselling book by Dan Ariely (2008) – ‘predictably irrational’. Individuals are also – to borrow a title of another bestseller (Thaler & Sunstein 2008) – very receptive to nudges, which are aspects ‘of the choice architecture that alters people’s behavior in a predictable way without forbidding any options or significantly changing their economic incentives’ (p.6). An example of a nudge is arranging food differently in a cafeteria so as to make people more likely to buy the healthy products. Why are we not what Thaler and Sunstein (2008) label *Econs*, individuals who think and choose unfailingly well and fully in line with textbook economics, but *Humans*, individuals who display biases in decision-making and consequently fail to even come close to the textbook standard? An increasing amount of work suggests that we so to speak cannot help ourselves, as this behavior is hardwired.

McDermott, Fowler and Smirnov (2008), for example, propose that prospect theory preferences have an evolutionary origin. By adapting a model from risk-sensitive optimal foraging theory, McDermott et al. show how risk-accepting behavior in the domain of losses (e.g. when facing starvation) and risk aversion in the domain of gains may be the optimal strategy for an individual who endeavors to maximize his or her chances of survivals over time and who is subjected to an environment in which abundance and scarcity vary. If ‘prospect theoretical tendencies concerning risk propensity lie more deeply rooted in human evolutionary psychology (...)’ (McDermott et al. 2008: 336), this has far-reaching implications for decision-making. First, it suggests that cognitive biases, the deviations from rationality, cannot be easily overcome. Second, and related, it indicates that individuals may be not very likely to learn over time or through

experience to overcome these tendencies. The work of Harbaugh, Krause and Vesterlund (2001) supports this latter conclusion. Harbaugh et al. find that 5-year olds, 10-year olds, and undergraduates all display the endowment effect, suggesting that they are more sensitive to losses than to gains. This is surprising, giving that undergrads – as well as 10-year olds – have substantially more market experience than 5-year olds. If they had learnt over time, the bias would have reduced over time. In fact, however, it did not.

A final implication for decision-making is that politicians and others can use these biases to influence, or phrased less positively manipulate, individuals' preferences. Stressing, for instance, a potential threat to survival can increase people's support for risky policies (cf. McDermott et al. 2008: 336). Asking 'when can politicians scare people into supporting policies that they would otherwise reject?' Lupia and Menning (2009) show that under specific conditions, politicians can manipulate voters' preferences for policies through fear. Politicians' ability to gain from inducing fear will be low when voters receive feedback about possible threats that they can use to act effectively (such as information on the plausibility of the future threat). If, conversely, the possibility for feedback is low or when the voters cannot suppress their fears, politicians are in a better position to use fear to shift voters' preferences and to make them support a policy they would otherwise dismiss. Hereby, Lupia and Menning demonstrate that – different than sometimes assumed – there are many circumstances in which politicians cannot simply scare voters into supporting policies they would otherwise reject. However, when the conditions are right (or wrong, depending on ones viewpoint), they can.

Experimental evidence on primates, more specifically on capuchin monkeys, shows that behavioral biases – such as loss aversion – also extend beyond the human species (Chen, Lakshminarayanan & Santos 2006). The monkeys prove to have clear preferences, as humans do, and these preferences change when they are faced with gambles (that is when risk is introduced). The monkeys, for example, preferred the experimenter who showed first one apple and later with a 50-50 chance delivered two apples instead of one over the experimenter who first showed two apples and later with a 50-50 chance delivered one apple instead of two. This finding suggests that also monkeys do not like to lose (by having first two apples and later only one). In turn, this indicates that individuals' tendency to make choices consistent with prospect theory's predictions may not only be hardwired (McDermott et al. 2008: 336), but that loss aversion is an

innate and evolutionary ancient feature of human preferences, a function of decision-making systems that evolved before the common ancestors of capuchins and humans diverged (Chen et al. 2006: 520). It may therefore be not surprising that the greater sensitivity to losses than to gains shows up in our brain activity as well (Tom, Fox, Trepel & Poldrack 2007). The neutral responses to gains and losses are coded by the same mechanism and take place in the same neural circuitry (e.g. the striatum). Loss aversion is thus not driven by negative affective responses, such as fear, discomfort, and vigilance (Tom et al. 2007). It is not just that people are more sensitive to losses than to gains, but also the brain is.

3. Problems in prospect theory

If most people actually behave as prospect theory predicts and if this behaviour is hardwired, why then is the use of prospect theory not as widespread as one might expect? Why has this theory's impact in most social sciences, including political science, been so much lower than in economics where it has been responsible for the development of an entirely new sub-field (behavioural economics)? A (partial) answer to this question is probably that some problems arise when prospect theory is applied empirically; problems that behavioural economists conducting experiments and focusing on individual behaviour do not face. One of the most central ones is to establish what is an actor's reference point (cf. Vis & Van Kersbergen 2007). In many cases individuals are likely to take the status quo as their reference point (see Tversky & Kahneman 1981: 456; Weyland 2002: 39; Boettcher 2004). If an individual is satisfied with the status quo, he or she tends to be in a gains domain. Conversely, if an actor is unsatisfied with the status quo, he or she tends to be in a losses domain. Because there is no general theory of satisfaction (Mercer 2005, referring to Kahneman et al. 1999), '(...) analysts must study the details of a decision maker's situation, goals, and motivation' (Mercer 2005: 4) in order to assess the acceptability of this point. Usually, it is quite easy to establish whether the status quo is acceptable. A deteriorating political position, for example, likely puts actors in a losses domain. An example includes President Carter during the Iran hostage crisis, where a foreign policy crisis made Carter long to return to the pre-crisis status quo (McDermott 1998, chap.3; see also Mercer 2005: 4). Also domestic politics, institutional structures, and situational factors such as economic crises can be used to determine the acceptability of

the status quo. Data on electoral volatility and public opinion polls, for example, may establish the likelihood of vote switching among voters and the popularity of the government. The higher is electoral volatility and the more unpopular the government, the more likely it is that a government considers itself to be in a losses domain (for more examples, see Mercer 2005: 5).

There is, however, a problem of the status quo as reference point. Because prospect theorists expect risk aversion in the domain of gains, they fail to consider the possibility that success – rather than failure – can also be a reason for dissatisfaction with the status quo (Mercer 2005). President George W. Bush’s decision to consider the Iraqi status quo unacceptable *because* he was doing well in the polls after the military victory in Afghanistan is an excellent example hereof. ‘Like a gambler in the black, Bush made bets with “house” money (...) that he felt he could afford only because he was in a domain of gain’ (Mercer 2005: 5). In the context of welfare state reform, taking the status quo as reference point to establish the actors’ domain as a loss or a gain seems plausible. This is because, first, welfare state reform is all about changing a situation characterized by institutional resilience and electoral resistance against change and, second, because the status quo bias holds for both the reformers and those affected by the reforms.

Another problem of applying prospect theory empirically is what Levy (1997: 102-104) labels the *aggregation problem*. Since prospect theory is developed as a theory of individual decision-making, the question is if it can be applied to collective decision-making. Sometimes, this problem can simply be circumvented because an individual is so dominant in decision-making that the collective decision is in effect an individual decision. Highly centralized regimes, such as Hitler’s Germany, are an excellent example hereof (Levy 1997: 102). Another way of getting around the problem is by applying prospect theory to individual decision-making. This is the route taken by for instance Fuhrman and Early (2008) in their study of an ambitious and successful nuclear disarmament initiative – the Presidential Nuclear Initiatives (PNIs). They demonstrate that prospect theory is the only account that can explain president George H.W. Bush’s willingness to accept the risk involved in the launching of PNIs as well as the timing of the initiative. By specifically focusing on Bush’s decision-making, Fuhrman and Early circumvent the aggregation problem. The work of McDermott (1998) is another example in which an individual is the decision-making unit. Specially, McDermott focuses on the

foreign policy decisions of the American President Carter and President Eisenhower, such as Carter's decision to embark on a highly risky rescue mission of the hostages held at the Iranian embassy and Eisenhower's decision to deny US espionage when the Soviet Union shot down the U-2 spy plane. A final example includes the work of Weyland (2002) who focuses on the assumption of power by a new president who is put into a domain of losses by the occurrence of severe economic problems to explain why some leaders in fragile democracies (e.g. in Argentina, Peru and Brazil) were surprisingly willing to pursue drastic neoliberal reforms, whereas others were not (e.g. in Venezuela).

In many political science research problems, like in welfare state politics, the aggregation problem cannot be circumvented because collective decision-making is what matters. What we can assess, though, is to what extent this actually is a problem. There is a substantial body of experimental and empirical evidence suggesting that this problem is smaller than it may seem. Bowman (1980), for example, uses content analyses of companies in eleven industries to demonstrate that organizations behave like individuals. Specifically, organizations facing losses take larger risks, just as individuals facing losses do. Related, focusing on 47 industries and 2,322 firms between 1975 and 1979, Fiegenbaum and Thomas (1988) find strong confirmation for their hypothesis that both within and across industries firms with below target returns on equity (ROEs), that is losses, display a negative relationship between risk and return (that is risk acceptance). Conversely, both within and across industries firms with above target ROEs, that is gains, reveal a positive relationship between risk and return (that is risk averse). These findings are fully in line with prospect theory's predictions. Moreover, recent experiments indicate that pairs of individuals violate the predictions of expected utility theory in the same manner as do individuals (Bone, Hey & Suckling 1999, see Kameda & Davis 1990). Kameda and Davis (1990) show that the political losses of one coalition partner do not need to influence the extent of risk the cabinet is willing to take if the other coalition party or parties have not incurred political losses. When, conversely, all or a majority of the group members (e.g. coalition parties) have incurred losses, group decision-making should become riskier (Kameda & Davis 1990: 73). Whyte (1993) finds support for prospect theory in group decision-making. Using six investment decision scenarios to compare individual and group decision-making in escalating commitment – that is 'the tendency to continue an endeavour, regardless of its merits, once an investment in time,

effort, or resources has been made' (Whyte 1993: 430-431) –, Whyte shows that group decisions are more consistent with prospect theory than individual decisions. Contrary to the many studies finding that groups are better decision-makers (see e.g. Michaelsen, Watson & Black 1989) Whyte (1993) demonstrates that this is not the case when escalating commitments (sunk costs) are involved. Using an experimental design in which subjects had to make hypothetical investment decisions, first individually and later in groups, Whyte shows that groups do not make fewer mistakes than individuals do, but more. Furthermore, the individual level tendencies were exacerbated at the group level. Support for prospect theory's key finding was found at both levels of analysis, but the findings were stronger at the group level. Since sunk costs are often involved in decision-making by political actors, prospect theory seems especially suited for accounting for such behaviour.

Finally, Kühberger's (1998) meta-analysis also supports the assumption that prospect theory applies to collective decision-making. The 248 published journal articles included in this analysis of experiments with human adults focusing on risky decision-making and were taken from fields as diverse as experimental, social, and applied psychology, medicine, management, and business. One of the main conclusions of the meta-analysis is that individual and group analyses have similar effect sizes (Kühberger 1998). This indicates a high degree of correspondence between the results for studies in which the individual is the unit of analysis or those in which a group is.

To sum up, the aggregation problem may not be that big of a problem after all. Regarding individuals' decision-making, such as foreign policy decisions by a president, the aggregation problem per definition does not materialize and prospect theory is applicable. With respect to collective decision-making such as of a cabinet the same conclusion holds, but for a different reason. Here, prospect theory can be used because experiments, meta-analyses, and real world data indicate that groups display the same pattern of risk-attitudes as do individuals – and are thus in line with prospect theory. In one study, groups were even found to follow prospect theory's predictions more strongly.

4. Applications of prospect theory in political science

Recently, scholars in the field of international relations have begun to employ prospect theory, often because of their dissatisfaction with the explanatory or descriptive

power of the rational choice accounts that dominate a large part of the (sub) discipline. McDermott's (1998) study of American foreign policy of the Carter and Eisenhower administrations, mentioned above, is an excellent example of the explanatory value of prospect theory. McDermott seeks to explain irregularities in state behaviour, that is to say, she wants to account for why 'nations take crazy risks, like the Iranian rescue mission; throw good money after bad, as in Vietnam, forgo easy gains, by terminating the Gulf War before reaching Baghdad; and so on' (McDermott 1998: 2). Methodologically, her work is a parallel demonstration of theory (prospect theory), whereby the idea is to develop a theoretical argument and then demonstrate its utility several times to a number of historical cases. This demonstrates the theory's applicability, and thus value, across a group of cases and additionally provides insights into how to operationalize key variables in specific cases. To test the theory's empirical value, McDermott examines the decision-making of President Carter and Eisenhower under both a losses and gains domain to see to what extent the difference in domain results in a difference in risk-propensity, as predicted by prospect theory. Different sources, such as memoirs, interviews, public opinion polls, and salient international events, are used to determine the domain; McDermott's independent variable. The variance in each choice option establishes the relative riskiness of an option, the risk-propensity; her dependent variable (McDermott 1998: 9-12, 36-40). In each of the four cases of foreign policy making, McDermott probes in much detail the domain, the (riskiness of the) options considered, and the actual decision and assesses to what extent the outcome is consistent with – and could even be predicted by – prospect theory. In all four cases, the decisions made are fully in line with prospect theory, hence making clear the theory's empirical applicability.

Moreover, Elms (2004) shows that insights from prospect theory help one to explain why states sometimes devote a high amount of money, time, and effort to resolve trade disputes with only limited potential benefits – something expected utility theory cannot explain if the costs involved (clearly) outweigh the benefits. Specifically, Elms' analysis reveals that the trade dispute between the US and Japan over expanded market access for American apples – a potential market that would not exceed \$15 million – could continue for 30 years with high costs involved for both sides because '(...) each became caught in a prospect theory spiral of actions and became willing to take even riskier actions in an attempt to recoup losses' (Elms 2004: 241).

Another example of – from the viewpoint of expected utility theory – puzzling behaviour is great powers’ initiation of risky military and diplomatic interventions in regions that do not directly threaten the homeland’s security (Taliaferro 2004). Why risk the lives of soldiers and invest time and money if the national interest is not at stake? Moreover, why persist as great power in a peripheral conflict when the prospects of winning are falling rapidly and the political, economic, and military costs are increasing? Based on prospect theory, Taliaferro (2004) argues that senior officials’ loss aversion drives great power intervention in the periphery. ‘Leaders (...) persevere and even escalate failing peripheral interventions to recoup their past losses. Instead of cutting their present losses, they continue to invest blood and treasure in losing ventures in peripheral regions’ (Taliaferro 2004: 178, paraphrasing Jervis 1994: 26). What is especially interesting about this contribution is that Taliaferro combines prospect theory and defensive realism in a so-called balance-of-risk theory. By incorporating prospect theory into an established theory of international relations, substantive predictions about political behaviour can be derived.

In another interesting contribution, Haas (2001) shows that prospect theory explains better the most important decisions in the Cuban missile crisis than does expected utility theory. Specifically, Haas uses material from the Soviet archives and the information from the US side that has been made recently available, particularly the tapes of the Executive Committee of the National Security (ExCom), to assess what the key actors in the crisis – most prominently Presidents Kennedy and Khrushchev – believed to be the likely costs, benefits, and probabilities of success involved in each of the major policy choices at each stage of the crisis (Khrushchev’s decision to send Missiles to Cuba; Kennedy’s decision to implement the blockade; Kennedy’s decision to continue to threaten the Soviets once the blockade had been established; Khrushchev’s decision to return the missiles to the USSR; and Khrushchev’s decision to bluff Kennedy from October 22 to October 28 in order to get a better deal before the missiles were removed). In line with the predictions of prospect theory, Kennedy and Khrushchev engaged in risky, non-value maximizing behaviour when facing losses. When, conversely, an outcome approached certainty, the two become much more risk averse – also in line with prospect theory. As Haas (2001: 266) argues, ‘these findings are particularly problematic for value-maximizing theories [such as expected utility theory] since Kennedy and Khrushchev

repeatedly engaged in excessively risky behavior when the downside of their gambles was nuclear conflict between the superpowers'. In fact, throughout the entire crisis, prospect theory explains better these actors' decisions than does expected utility theory.

Different from scholars in International Relations, scholars in International Political Economy (IPE) have been slow on incorporating insights from behavioural economics, including prospect theory, in their work. Elms (2008) demonstrates that this is unfortunate, as behavioural economics often offers a more convincing account of puzzles in IPE than rival accounts do. Elms has selected three publications from a key IPE journal, *International Organization*, of which she discusses the empirical puzzle and the original explanation. Subsequently, she shows how the same puzzle could be solved more convincingly by drawing on insights from behavioural economics, such as loss aversion.

Also comparativist applications of prospect theory in the field are still rare (for exceptions, see Weyland 1996; 1998; 2002; Vis & Van Kersbergen 2007; Vis 2009; 2010). Weyland (2002) focuses on the puzzle that in the 1990s, several Latin American democratic governments (Menem in Argentina, Collor in Brazil, Fujimori in Peru, and Pérez in Venezuela) have enacted harsh neoliberal reform shortly after having taking office; reforms that involved painful adjustment on the part of the public and which, hence, were theoretically expected to take place only under dictatorships. Interestingly, as well as puzzling, these painful reforms have led to little revolt and even wide support in Argentina, Brazil, and Peru whilst resulting in unprecedented protests in Venezuela. Weyland argues and empirically demonstrates that the four presidents' risk-propensity can explain their willingness to pursue bold and costly stabilization measures. Being faced with unleashing hyperinflation upon taking office (over 50 per cent per month), they found themselves in a domain of losses amounting in their willingness to act risk-accepting in an attempt to recoup some of these losses. In Argentina, Brazil, and Peru, the problem of hyperinflation was known by and affecting large parts of the public who, consequently, were also in a losses domain and embraced the bold reforms. In Venezuela, conversely, where inflation was more limited and the former government had hidden the worsening situation from the public, the public rejected the bold reforms and engaged in violent protests. Economic-structural, political-institutional, ideational, and rational choice theories, while shaping the context of leader's and citizens' choices, could neither explain the adoption of the drastic market reforms nor the acceptance – or even support – by the

public thereof. Also this study thus demonstrates the explanatory supremacy of prospect theory.

5. Prospect theory and welfare state reform

There is a large and continuously expanding literature on the politics of welfare state reform (see e.g. Starke 2006). This literature endeavours among other factors to establish what is the degree and direction of reform and how it can be explained. These are intriguing questions, as theoretically there are good reasons to expect no or only little reform. Given that most citizens benefit from (some of) the core programmes of the welfare state (e.g. Blekesaune & Quadagno 2003), cutting back on such programmes entails a substantial risk of electoral losses. Nonetheless, welfare state reform occurs. Most of the existing studies focus on explaining the variation in the degree of reform across countries and/or welfare state regimes. They for example try to explain why some countries reform more than others (e.g. Pierson 1994; Cox 2001). Or why some welfare state regimes – which are clusters of countries that have a distinct political and policy configuration, producing a trajectory that is difficult to abandon (liberal, conservative, or social democratic) – display more changes than others (e.g. Esping-Andersen 1996; 1999).

With this focus, these studies are less interested in the decision-making of governments *per se*. Despite the usefulness of this body of research, the latter is rather unfortunate as precisely at the government-level an intriguing puzzle is present. Why do governments of a similar political colour and faced with the same institutional circumstances vary in the degree and direction of reform they pursue? Why are some British, Danish, Dutch, and German governments (Lubbers I & III, Schröder II, Nyrup Rasmussen II & IV, Kok I, Kohl IV, and Schlüter II) willing to accept the great electoral risk involved in unpopular reform, while other governments (Lubbers II, Schröder I, Nyrup Rasmussen I, Kok II, Kohl I-III, and Schlüter I, IV & V) refrain from pursuing unpopular policies (Vis forthcoming: chap.4)? Can insights from prospect theory also help to account for the puzzling variation across governments in welfare state reform? Can these insights help to explain what drives governments' behaviour in such reform? I will argue that the answer is *yes*.

Recall that prospect theory's central finding indicates that individuals' attitude towards risk depends on whether they face losses or gains. Confronting gains, individuals

are risk averse; confronting losses, they are risk-accepting. As I have argued earlier, this finding can be extended to collective decision-making such as involved in the politics of welfare state reform. The hypothesis derived from prospect theory for the latter is that by influencing the risk attitude, and thereby the willingness to pursue risky reform, gains and losses drive governments' behaviour in welfare state reform (Vis & Van Kersbergen 2007). Elsewhere I have presented empirical evidence based on welfare state reforms pursued by British, Danish, Dutch, and German governments between 1979 and 2005 that supports this hypothesis (Vis forthcoming, see also Vis 2009; 2010). Let me discuss this work.

To assess if losses are indeed necessary for the occurrence of unpopular reform as prospect theory predicts, we need a method that is able to identify necessary conditions. Fuzzy-set qualitative comparative analysis (fsQCA) is such a method (Ragin 2008; Rihoux & Ragin 2009). Using Boolean and fuzzy-set logic, fsQCA helps one to reveal the necessary and/or sufficient (combinations of) conditions. A fuzzy-set is a 'fine-grained, [pseudo] continuous measures (...) carefully calibrated using substantive and theoretical knowledge relevant to set membership' (Ragin 2000: 7). A fuzzy-set has three qualitative breakpoints, 1 (when a case is 'fully in' the set), 0 (when a case is 'fully out' the set) and 0.5 (when there is maximum ambiguity as to whether a case is in or out a set), which the researcher establishes. For a discussion of the fuzzy-sets used, see Vis (forthcoming). Here, I will immediately turn to the study's findings, as these are the most interesting for the current paper.

Vis (forthcoming) shows that in almost all instances in which the governments of the four countries pursue unpopular welfare state reform, the government faces a deteriorating socio-economic situation (e.g. falling growth rates, rising levels of unemployment). In fact, the fsQCA reveals that a deteriorating socio-economic condition is necessary for the occurrence of unpopular reform. This result follows nicely from prospect theory. Different from for example a socio-economic (neo-functional) account to welfare state reform, in which problem load as such (e.g. high unemployment) is considered the trigger for unpopular reform, prospect theory suggests that having a problem is not enough. If, for example, the level of unemployment in a country is always above 10 per cent, like in Spain, this in itself does not induce action from the part of the government; only a deteriorating situation does. The finding of the centrality of a

weakening socio-economic situation supports the hypothesis that losses are necessary for unpopular welfare state reform.

Vis also shows that a weakening socio-economic situation is not enough to trigger unpopular reform; it is only sufficient for unpopular reform when it is combined with one or two other conditions; a deteriorating political position (e.g. a fall in the polls) or a rightist government. Regarding the former, the typical argument is that the better this position (e.g. the larger the parliamentary majority), the better the prospects for enacting reforms (Keeler 1993; Alesina, Ardagna & Trebbi 2006). Like with the socio-economic situation, prospect theory's key finding suggests that a weakening – instead of an excellent or improving – political position (e.g. a meagre electoral victory, a minority in the upper house in a bicameral system such as Germany) puts governments in a losses domain, inducing risk-accepting behaviour and thereby prompting unpopular reform. Also an improving political position of the main opposition party (e.g. electoral victory, domination of the upper house) may put governments in a losses domain. The stronger is the opposition's political position, the less the government has to lose and the more it has to gain when pursuing reforms. Consequently, the government will perceive the status quo – in which the main opposition party or parties are more successful in terms of votes and/or offices – as a loss. Vis (forthcoming) finds support also for this prospect-theoretical hypothesis by revealing that a deteriorating political position is part of a sufficient combination of conditions.

With these findings, Vis' work empirically demonstrates the value of a prospect-theoretical account for understanding better the politics of welfare state reform. Specifically, it shows that by adding prospect theory to the arsenal of explanations, we gain insight into the puzzling fact that some governments (but not others) undertake unpopular reform. This knowledge furthers our understanding of governments' decision-making.

What does prospect theory have to offer for existing studies?

A prospect-theoretical account can also help one to better explain existing findings. For example, based on pooled time-series analysis of manifesto data for 23 countries between around 1945 and 1998, Somer-Topcu (2009) finds that parties shift their policies more if they have lost the previous election than when they have won it.

Somer-Topcu proposes that a lost election signals to a party that public opinion has moved away from its policy position. For safeguarding future gains, changing the party's policy in line with public opinion thus seems a logical strategy. However, compared to doing nothing, changing the policy position is a risky option since it is very hard – if not impossible – to know beforehand what will be the precise effect of a policy change. A party that changes its policy position is thus risk-acceptant, while a party that does not change its policy position is risk-averse. Which of the two a party chooses depends on the past election result, whereby the time elapsed since the previous election functions as a moderating variable (Somer-Topcu 2009).

Different from Somer-Topcu, Baccaro and Simoni (2008) do not invoke prospect theory themselves. However, as we shall see, the interpretation of their findings becomes even stronger when insights from this theory are added. Baccaro and Simoni pose the intriguing question of why some governments (but not others) are willing to 'share their policy-making prerogatives with trade unions and employer associations, not just informally by incorporating their inputs but also formally by setting up a bargaining table and engaging in negotiations with them over public policy' (2008: 1323). Based on the paired case studies of Ireland (increasing governmental willingness to concertate) and Britain (diminishing governmental willingness to concentrate) and Italy (increasing governmental willingness) and Austria (diminishing governmental willingness), Baccaro and Simoni show that being weak electorally is an important condition for sharing policy prerogatives. Being strong electorally, that is holding comfortable majorities, conversely is an important condition for moving away from such sharing. This finding tallies well with prospect theory's central finding. Confronting gains (a comfortable majority in parliament), governments are unwilling to give up what they have and act risk-averse. In such a context, they have no reason to give up something (in this case policy-making autonomy) and – being loss averse – they thus will not do so. The situation is very different for governments in a dire electoral situation. Faced with such losses, these governments may go out and gamble by giving up something (part of their policy-making autonomy) to recoup some of the losses incurred (attempting to become stronger electorally again). Overall, adding prospect theory provides additional theoretical footing to Baccaro and Simoni's interesting finding.

6. Conclusion

In a nutshell, this paper has both taken stock of some of the advances in prospect theory and has shown the relevance of this theory for better understanding governments' decision-making. To start with the former, I argued that there is increasing theoretical and neurological evidence that individuals' tendency to behave as predicted by prospect theory has an evolutionary origin and is thus hardwired in our cognitive system. Even though we can of course try to make decisions consistent with economic textbooks – acting as Econs (Thaler & Sunstein 2008) –, such an evolutionary root suggests that we are more likely to fall prey to decision-making biases such as loss aversion – making us Humans (Thaler & Sunstein 2008). Whether they like it or not, the context or domain in which they find themselves (losses or gains) thus influence individuals. Facing prosperous conditions, or gains, individuals take risk-averse decisions because they want to hold on to what they have. Confronting setbacks, losses, individuals take risk-accepting decisions since they try and recoup (some of) the losses suffered.

Interestingly, and important for the study of many political phenomena, although prospect theory is originally formulated as a theory of *individual* decision-making, by now there is ample experimental and empirical evidence that indicates that the theory's central finding extends to collective decision-making (such as those involved in welfare state politics). By discussing a study into the puzzling variation of reform across governments that are very similar in terms of political colour and institutional features (Vis forthcoming), I have offered an empirical illustration of the value of a prospect-theoretical account for understanding governments' decision-making. If governments pursue welfare state reform, this typically involves a substantial electoral risk since the programmes of the welfare state receive wide public support. To explain why some governments (but not others) are willing to take this risk, we need a theory that focuses on variation in risk-attitudes. Prospect theory is precisely such a theory. The discussion of the (potential) contribution of this theory to two recent studies further illustrates the potential of prospect theory in comparative politics. Given its promise of unraveling theoretical and empirical puzzles and given that some of the problems of applying prospect theory empirically have been reduced (but see Mercer 2005), many applications of prospect theory in the field may – and hopefully will – follow.

References

- Alesina, A., Ardagna, S., & Trebbi, F. (2006). Who Adjusts and When? On the Political Economy of Reforms. *IMF Staff Papers*, 53, 1-29.
- Ariely, D. (2008). *Predictably Irrational: The Hidden Forces that Shape our Decisions*. London: Harper.
- Baccaro, L., & Simoni, M. (2008). Policy Concertation in Europe: Understanding Government Choice. *Comparative Political Studies*, 41(10): 1323-1348.
- Blekesaune, M., & Quadagno, J. (2003) Public Attitudes toward Welfare State Policies: A Comparative Analysis of 24 Nations, *European Sociological Review*, 19 (5): 415-427.
- Boettcher, W.A. (2004). The Prospects for Prospect Theory: An Empirical Evaluation of International Relations Applications of Framing and Loss Aversion. *Political Psychology*, 25(3), 331-62.
- Bone, J., Hey, J., & Suckling, J. (1999). Are Groups More (or Less) Consistent than Individuals? *Journal of Risk and Uncertainty*, 18(1), 63-81.
- Bowman, E.H. (1980). A Risk/Return Paradox for Strategic Management. *Sloan Management Review*, 21(3), 17-31.
- Chen, M.K., Lakshminarayanan, V. & Santos, L.R. (2006). How Basic Are Behavioral Biases? Evidence from Capuchin Monkey Trading Behavior. *Journal of Political Economy*, 114(3), 517-537.
- Cox, R.H. (2001). The Social Construction of an Imperative: Why Welfare State Reform Happened in Denmark and the Netherlands but Not in Germany. *World Politics*, 53(3), 463-498.
- Elms, D.K. (2004). Large Costs, Small Benefits: Explaining Trade Dispute Outcomes. *Political Psychology*, 25(2), 241-270.
- Elms, D.K. (2008). New Directions for IPE: Drawing From Behavioral Economics. *International Studies Review*, 10(2), 239-65.
- Esping-Andersen, G. (Ed.) (1996a). *Welfare States in Transition: National Adaptations in Global Economies*. London: Sage.
- Esping-Andersen, G. (1999). *Social Foundations of Postindustrial Economies*. Oxford: Oxford University Press.
- Fiegenbaum, A. & Thomas, H. (1988). Attitudes Toward Risk and the Risk-Return Paradox: Prospect Theory Explanations. *Academy of Management Journal*, 31(1), 85-106.

- Fuhrmann, M. & Early, B.R. (2008). Following START: Risk Acceptance and the 1991-1992 Presidential Nuclear Initiatives. *Foreign Policy Analysis*, 4(1), 21-43.
- Gilovich, T., Griffin, D., & Kahneman, D. (Eds.) (2002). *Heuristics and Biases: The Psychology of Intuitive Judgment*. New York: Cambridge University Press.
- Haas, M.L. (2001). Prospect Theory and the Cuban Missile Crisis. *International Studies Quarterly*, 45(2), 241-270.
- Harbaugh, W.T., Krause, K., & Vesterlund, L. (2001). Are Adults Better Behaved than Children? Age, Experience, and the Endowment Effect. *Economic Letters*, 70(2), 175-181.
- Jones, B.D. (2001). *Politics and the Architecture of Choice: Bounded Rationality and Governance*. London and Chicago: The University of Chicago Press.
- Kahneman, D., Knetsch, J.L., & Thaler, R.H (1990). Experimental Tests of the Endowment Effect and the Coase Theorem. *Journal of Political Economy*, 98(6), 1325-48.
- Kahneman, D., Knetsch, J.L., & Thaler, R.H. (2000[1991]). Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias. In Kahneman, D., & A. Tversky (Eds.), *Choices, Values, and Frames* (pp.159-170). Cambridge: Cambridge University Press.
- Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision Under Risk. *Econometrica*, 47(2), 263-91.
- Kahneman, D., & Tversky, A. (Eds.) (2000). *Choices, Values, and Frames*. Cambridge: Cambridge University Press.
- Kahneman, D., & Tversky, A. (2000[1984]). Choices, Values, and Frames. In Kahneman, D., & A. Tversky (Eds.), *Choices, Values, and Frames* (pp.1-16). Cambridge: Cambridge University Press.
- Kameda, T., & Davis, J. H (1990). The Function of the Reference Point in Individual and Group Risk Decision Making. *Organizational Behavior and Human Decision Processes*, 46(1), 55-76.
- Keeler, J.T.S. (1993). Opening the Window for Reform: Mandates, Crises, and Extraordinary Policy-Making. *Comparative Political Studies*, 25(4), 433-486.
- Kühberger, A. (1998). The Influence of Framing on Risky Decisions: A Meta-Analysis. *Organizational Behavior and Human Decision Processes*, 75(1), 23-55.
- Lau, R.R. (1985). Two Explanations for Negativity Effects in Political Behavior. *American*

- Journal of Political Science*, 29(1), 119-138.
- Levy, J.S. (1997). Prospect Theory, Rational Choice, and International Relations. *International Studies Quarterly*, 141(1), 87-112.
- Levy, J.S. (2003). Applications of Prospect Theory to Political Science. *Synthese*, 135, 215-41.
- Loewenstein, G., & Adler, D. (2000 [1995]). A Bias in the Prediction of Tastes. In Kahneman, D., & A. Tversky (Eds.), *Choices, Values, and Frames* (pp.726-734). Cambridge: Cambridge University Press.
- Lupia, A., & Menning, J.O. (2009). When Can Politicians Scare Citizens Into Supporting Bad Policies?, *American Journal of Political Science*, 53(1), 90-106.
- McDermott, R. (1998). *Risk-Taking in International Politics: Prospect Theory in American Foreign Policy*. Ann Arbor: The University of Michigan Press.
- McDermott, R. (2004). Prospect Theory in Political Science: Gains and Losses from the First Decade. *Political Psychology*, 25(2), 289-312.
- McDermott, R., Fowler, J.H., & Smirnov, O. (2008). On the Evolutionary Origin of Prospect Theory Preferences. *The Journal of Politics*, 70(2): 335-50.
- Mercer, J. (2005). Prospect Theory and Political Science. *Annual Review of Political Science*, 8, 1-21.
- Michaelsen, L.K, Watson, W.E. & Black, R.H. (1989). A Realistic test of Individual Versus Group Decision Making. *Journal of Applied Psychology*, 74(5), 834-839.
- Organization for Economic Co-operation and Development (OECD) (2006) *Boosting Jobs and Incomes: Policy Lessons from Reassessing the OECD Jobs Strategy*. Paris: OECD.
- Pierson, P. (1994). *Dismantling the Welfare State? Reagan, Thatcher, and the Politics of Retrenchment*. Cambridge: Cambridge University Press.
- Radcliff, B. (1994). Reward Without Punishment: Economic Conditions and the Vote. *Political Research Quarterly*, 47(3), 721-731.
- Ragin, C.C. (2000) *Fuzzy-Set Social Science*. Chicago and London: The University of Chicago Press.
- Ragin, C.C. (2008). *Redesigning Social Inquiry: Fuzzy Sets and Beyond*. Chicago and London: The University of Chicago Press.
- Rihoux, B., & Ragin, C.C. (Ed) (2009). *Configurational Comparative Methods: Qualitative Comparative Analysis (QCA) and Related Techniques*. Los Angeles etc.: Sage.

- Samuelson, W., & Zeckhauser, R. (1988). Status Quo Bias in Decision Making. *Journal of Risk and Uncertainty*, 1(1), 7-59.
- Somer-Topcu, Z. (2009). Timely Decisions: The Effects of Past National Elections on Party Policy Change, *The Journal of Politics*, 71(1), 238-248.
- Starke, P. (2006). The Politics of Welfare State Retrenchment: A Literature Review. *Social Policy & Administration*, 40(1), 104-120.
- Steinacker, A. (2006). Externalities, Prospect Theory, and Social Construction: When Will Government Act, What Will Government Do? *Social Science Quarterly*, 87(3): 459-476.
- Taliaferro, J.W. (2004). Power Politics and the Balance of Risk: Hypotheses on Great Power Intervention in the Periphery. *Political Psychology*, 25(2), 177-211.
- Thaler, R.H., & Sunstein, C.R. (2008). *Nudge: Improving Decisions about Health, Wealth and Happiness*. London etc.: Penguin Books.
- Tom, S.M., Fox, C.R., Trepel, C., & Poldrack, R.A. (2007). The Neural Basis of Loss Aversion in Decision-Making Under Risk. *Science*, 315(2811), 515-518.
- Tversky, A., & Kahneman, D. (1981). The Framing of Decision and the Psychology of Choice. *Science*, 211(January), 453-8.
- Vis, B. (2009). 'Governments and Unpopular Social Policy Reform: Biting the Bullet or Steering Clear?', *European Journal of Political Research*, 48(1), 31-57.
- Vis, B. (2010). 'The Importance of Socio-Economic and Political Losses and Gains in Welfare State Reform', *Journal of European Social Policy*.
- Vis, B. (forthcoming). *Politics of Risk-Taking: Welfare State Reform in Advanced Democracies*. Amsterdam: Amsterdam University Press.
- Vis, B., & Van Kersbergen, K. (2007). Why and How Do Political Actors Pursue Risky Reforms? *Journal of Theoretical Politics*, 19(2), 153-72.
- Weyland, K. (1996). Risk Taking in Latin American Economic Restructuring: Lessons from Prospect Theory. *International Studies Quarterly*, 40(2), 185-207.
- Weyland, K. (1998). Swallowing the Bitter Pill: Sources for Popular Support for Neoliberal Reform in Latin America. *Comparative Political Studies*, 31(5), 539-568.
- Weyland, K. (2002). *The Politics of Market Reform in Fragile Democracies: Argentina, Brazil, Peru, and Venezuela*. Princeton and New York: Princeton University Press.
- Weyland, K. (2006). *Bounded Rationality and Policy Diffusion: Social Sector Reform in Latin America*. Princeton and Oxford: Princeton University Press.

Whyte, G. (1993). Escalating Commitment in Individual and Group Decision Making: A Prospect Theory Approach. *Organizational Behavior and Human Decision Processes*, 54(3), 430-55.

Notes

* This research is supported by a Veni grant from the Netherlands Organisation for Scientific Research (NWO, grant nr. 451-08-012).