



Analysis

Divesting, Fast and Slow: Affective and Cognitive Drivers of Fading Voter Support for a Nuclear Phase-Out

Adrian Rinscheid^{a,b,*}, Rolf Wüstenhagen^a

^a Chair for Management of Renewable Energies, University of St. Gallen, Tigerbergstrasse 2, CH 9000 St. Gallen, Switzerland

^b Woodrow Wilson School of Public & International Affairs, Princeton University, Andlinger Center, 86 Olden Street, Princeton, NJ 08544, USA



ARTICLE INFO

Keywords:

Divestment
Nuclear power
Voting behavior
Dual-process models
Affect heuristic
Asymmetric dominance effect

ABSTRACT

Overcoming reliance on non-renewable resources is a key concern of energy transitions worldwide. But as the literature on carbon lock-in has shown, overcoming path dependence is all but trivial. Even well-minded decision-makers tend to relapse into inertia when it comes to making concrete divestment decisions. We investigate one specific case, the 2016 Swiss popular initiative to phase out nuclear power, to explore the cognitive and affective drivers of energy path dependence on the individual level. Within eight weeks of an intense political campaign, support for this initiative dropped from more than 60 to just 45.8% of Swiss voters. Based on a representative longitudinal survey ($N = 1014$), we show that changes in perceived risk and benefit of nuclear power play key roles in explaining fading voter support for nuclear divestment, and that affect is in turn a significant driver of those changes. By framing it as a choice between the lesser evil of nuclear power or importing German coal power, opponents of the phase-out managed to introduce an asymmetrically dominated option into voters' choice set, leading many to change their original voting intentions. Our paper responds to calls for integrating dual-process theories ("*thinking fast and slow*") into research in Ecological Economics.

1. Introduction

The transition to a sustainable energy future requires two distinct processes: *investing* in new energy technologies (such as solar and wind power), and *divesting* from unsustainable infrastructure of the past. While the former has received a lot of attention in policy circles and academic literature over the last decades, the latter has more recently made it to the headlines in the context of divesting from fossil fuels. Unlike fossil fuels, nuclear power is not a major contributor to climate change, but in the aftermath of the 2011 Fukushima accident and the bankruptcies of Tepco and Toshiba Westinghouse, questions about the ecological and financial sustainability of the nuclear industry have re-emerged with renewed intensity.

One of the countries that have started to rethink the role of nuclear power is Switzerland, where the world's oldest fleet of nuclear reactors contributes about one third of national power generation. Shortly after

the Fukushima accident, the Swiss Green Party had launched a popular initiative to divest from nuclear power. The initiative proposed a ban on new nuclear power plants and a timeline for phasing out existing reactors between 2017 and 2029. It was submitted to a popular vote in November 2016. Opinion polls two months ahead of the vote indicated a solid majority of voters in favor of the proposal, but their support continuously faded during the political campaign until the initiative was finally rejected by a majority of voters.¹ What makes several hundred thousand voters² change their opinion from supporting to rejecting divestment from nuclear power in just eight weeks?

The current paper draws on recent literature in economic psychology to explore whether dual-process theories of human behavior can shed light on this question. It thereby relates to the wider issue of how fading support for divesting from unsustainable infrastructure can be explained, and possibly prevented. Especially, we seek to explore whether the changes in voting intentions represent a case of

* Corresponding author at: University of St. Gallen, Chair for Management of Renewable Energies, Tigerbergstrasse 2, CH 9000 St. Gallen, Switzerland.

E-mail addresses: adrian.rinscheid@unisg.ch (A. Rinscheid), rolf.wuestenhagen@unisg.ch (R. Wüstenhagen).

URL: <http://www.iwoe.unisg.ch> (A. Rinscheid).

¹ In another referendum half a year after the nuclear phase-out vote analyzed in this paper, Swiss voters accepted the "Energy Strategy 2050" with a 58% majority. This policy package, which had been proposed by the federal government, included a ban on constructing new nuclear power plants, but initial proposals to limit the operating life of existing reactors had been eliminated by the conservative majority in Parliament.

² 2.4 million voters participated in the referendum. Based on our survey, 61.2% of Swiss voters had supported the initiative eight weeks ahead of the vote, but only 45.8% supported it in the popular vote. The 15.4 percentage point decline in support for the initiative thus translates into nearly 370,000 votes. <https://www.admin.ch/ch/d/pore/va/20161127/det608.html> (accessed 31.08.17).

the affect heuristic (Finucane et al., 2000; Slovic et al., 2004), which postulates that emotional and cognitive factors interact in decision-making. In contrast to experimental research in the lab or surveys in hypothetical settings, our research approach is unique in that we measure voter preferences and behavior in a real-life setting. A heated political campaign and the fact that voters actually had to come to a binary conclusion (either voting yes or no) create a decision-context that allows for both affective and cognitive considerations to occur.

Our research is part of a lively debate on overcoming path dependence (Goldstone, 1998; North, 1990), status-quo bias (Samuelson and Zeckhauser, 1988), inertia (Henderson, 2006) and procrastination (Andreou, 2007) in the energy sector (Lovio et al., 2011; Simmie, 2012; Wüstenhagen and Teppo, 2006). In a broad sense, path dependence describes the fact that past events have an impact on present choices. On a systemic level, this can lead to phenomena like carbon lock-in (Unruh, 2000), a situation that has been described by former U.S. president George W. Bush as an “addiction to oil”. The idea to look at individual-level phenomena like addiction as potential sources of inspiration for explaining and overcoming system-level sustainability challenges has also recently been promoted in this journal (Costanza et al., 2017). We contribute to this debate by looking at the micro-foundations of nuclear lock-in.

2. Literature Review and Hypotheses

In traditional models of rational choice, the decision-maker is conceptualized as *homo oeconomicus*, a perfectly informed actor who rationally calculates the cost and benefit of different choice options and chooses the alternative that maximizes his utility (e.g., Edwards, 1954; Friedman, 1953). While these models tend to overemphasize humans' capacity for systematic information processing and leave little room for unconscious drivers of decision-making such as habits and emotions, behavioral decision research takes the limits of humans' cognitive abilities into account. Behavioral approaches emphasize the context-specific, dynamic and unconscious processes of decision-making. This perspective has been found to be useful in explaining how people actually make decisions (Redlawsk and Lau, 2013; Weber and Johnson, 2009).

In the behavioral literature, an influential conceptualization of information processing distinguishes between cognitive and affective processes (Chaiken et al., 1989; Epstein, 1994). The cognitive system relates to analytic and effortful processes, in which individuals base decisions on their thoughts, beliefs and perceptions related to an object (Weber and Johnson, 2009). While cognitive factors have, for a long time, been at the center of analysis in decision research, the role of affective processes has become more widely recognized since the 1980s (e.g., Zajonc, 1980). Researchers now acknowledge that in many decision contexts, choices are not only based on what people think or know about an object, but also on how they *feel* about it (Slovic et al., 2004). The affective system is based on associative, intuitive and less effortful processes that generally occur faster than conscious cognitive processing (Weber and Johnson, 2009), which is why nobel laureate Daniel Kahneman (2011) refers to both systems as “thinking fast and slow”. In what follows, we base the development of theoretical expectations regarding fading voter support for nuclear divestment on such a dual-process perspective. We first shed light on the decision context – a popular vote – by theorizing about the stability of cognitive and affective factors during a political campaign (2.1). Subsequently, we derive hypotheses about the direct

and indirect influences of cognitive and affective factors regarding fading voter support for nuclear divestment (2.2). Finally, we theorize how changes in the choice architecture can lead to preference reversals (2.3).

2.1. Voters' Evaluation of Nuclear Power in a Contested Political Setting

2.1.1. Perceptions of Nuclear Risk and Benefit

In terms of cognitive factors, prior research on public support of nuclear technology has emphasized the importance of people's evaluation of the risks and benefits of nuclear power. Perceived risks – i.e., concerns about nuclear accidents, radioactive leakage, nuclear waste disposal, proliferation, and other challenges related to the technology – have been shown to negatively influence public acceptance of nuclear power (Peters and Slovic, 1996; Renn, 1990; Tanaka, 2004; Whitfield et al., 2009). In contrast, citizens who perceive the benefits of nuclear power – such as its contribution to security of supply or low electricity prices – to be high, tend to show higher acceptance rates (Corner et al., 2011; Visschers and Siegrist, 2013).

Contrasting with rational choice models of decision-making, behavioral approaches do not assume perceptions and preferences to be stable. During a political campaign, voters are exposed to a variety of views and opinions, and political actors have ample opportunities to influence citizens' perceptions. This has inspired a large number of studies on the effects of political campaigns on opinion formation (Iyengar and Simon, 2000; Kriesi, 2002; Sciarini and Tresch, 2011). We therefore hypothesize that voters' perceptions of risk and benefit can significantly change in the run-up to a direct democratic vote:

H1. Voters' perceptions of nuclear risk and benefit change during a political campaign.

2.1.2. Affective Evaluation of Nuclear Power

Political campaigns are emotionally loaded events, and politicians appeal to voters' feelings and emotions (Brader, 2005). Inspired by psychological research, scholars of political communication have found that messages targeted at voters' feelings can have advantages in gaining voter support over messages targeted at cognitive channels (Abelson et al., 1982; Marcus, 2000; Ragsdale, 1991). However, research on the role of feelings in political controversies related to sustainability and divestment is scarce (Menzel, 2013). We aim to shed light on the role of affect by analyzing to what extent voters' affective evaluations of nuclear power are malleable in the context of a political campaign:

H2. Voters' affective evaluations of nuclear power change during a political campaign.

2.2. Cognitive and Affective Precursors of Fading Voter Support for Divestment

2.2.1. Preference Reversal via the Cognitive Route

Our main objective is to explain why many voters have changed their voting preference regarding the ballot proposition in the run-up to the Swiss referendum. If political actors succeed in changing voters' perceptions relating to the technology's risks or benefits, this might trigger a reconsideration of related voting intentions and thus influence choices made at the ballot box. This perspective ties in with reason-based analysis rooted in cognitive psychology, according to which individuals base their decisions on their perceptions of a problem and

Download English Version:

<https://daneshyari.com/en/article/7343766>

Download Persian Version:

<https://daneshyari.com/article/7343766>

[Daneshyari.com](https://daneshyari.com)