# THE SYMMETRIC FALLACY: THE DANGERS OF SYMMETRIC REASON-ING IN THE SOCIAL SCIENCES

by:
Lukas Haffert and Timur Ergen
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**Abstract**

Social scientists often treat causal relationships as inherently symmetric: if an increase in X leads to an increase in Y, a decline in X will lead to a corresponding decline in Y. This paper challenges this conventional approach and argues that many causal relationships are in fact asymmetric, because their underlying mechanisms work in asymmetric ways. While researchers are aware of this in principle, it is often not reflected in research practice. Therefore, we call on social scientists to pay more attention to the possibility of asymmetric relationships in their theories and their empirical research. They otherwise run the risk of accidentally rejecting sound theories or accepting faulty ones. We develop a typology of different mechanisms generating asymmetry, demonstrate their empirical relevance by replicating empirical studies of electoral dynamics, discuss strategies to deal with asymmetry, and show the relevance of asymmetry for social analysis and political reform.

**Contact details:**

Lukas Haffert
University of Zurich
Department of Political Science
Affolternstrasse 56
8050 Zürich
Switzerland
+41 44 634 50 28
lukas.haffert@uzh.ch

Timur Ergen
Max Planck Institute for the Study of Societies (MPIfG)
Paulstraße 3
50676 Cologne
Germany
+49 221 2767 222
te@mpifg.de

**The Symmetric Fallacy: The Dangers of Symmetric Reasoning in the Social Sciences**

# 1 Introduction

The decline of trade unions has been identified as one of the main reasons for the increase in inequality that has occurred in almost all developed economies over the last four decades (Huber and Stephens 2014; Jacobs and Myers 2014; Volscho and Kelly 2012). Often, political commentators (Kristof 2015), researchers (Jaumotte and Osorio Buitron 2015), and international organizations (Berg 2015) use this finding to argue that strengthening unions can

help to reduce inequality. If declining trade unions led to an increase in inequality, after all, growing trade unions should help to reduce it again.

This claim about the benefits of strengthening unions is a typical example of what we call symmetric reasoning. In this often-implicit framework, causal relationships are conceptualized as directionally symmetric: if an increase in X leads to an increase in Y, it is assumed that a decrease in X would lead to a corresponding decrease in Y. In many cases, this assumption will be well justified. In many others, however, it will not. How can we distinguish between the two?

This question is not only relevant for the study of inequality or even political economy. It is equally important if we study how increasing or decreasing globalization affects the welfare state, how a growing or shrinking population affects house prices in a city, how parties react to vote gains and losses, how rising or falling turnout influences election outcomes, how upward and downward social mobility affects political participation, or how growing or declining exposure to immigrants affects political preferences.

In all of these cases, intuition and anecdotal evidence might suggest that the respective relationships show signs of asymmetry. At least on second thought, asymmetry clearly is present in social scientists' minds. And yet, in research practice, social scientists are often surprisingly insensitive to the question of whether the causal relationships they investigate work in symmetric or asymmetric ways.[1] Across the social sciences, theoretical arguments are often formulated as if they were symmetric, without conscious reflection on this assumption. In many cases, empirical research proceeds as if statements about the effect of X on Y hold independently of the direction in which X changes. When analyzing the relationship between X and Y, they often include observations of both rising and falling X, without discussing whether this is justified.[2]

This implicit symmetric reasoning is particularly endemic in studies that draw a too-close connection between methods of linear analysis and descriptions of how the world works. It is often due to what sociologist Andrew Abbott has called the "representational use" of linear

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[1] There are a number of notable exceptions, which we discuss below.

[2] Here and in the following sections, we often adopt a variable-centered language to describe causal relationships. For reasons of clarity, and in order to speak to both qualitative and quantitative approaches, we think this is warranted. In our view, the fact that causal asymmetry has been discussed in case-based approaches proves that the concept is not a mere side effect of describing causal relationships in the language of variables.

model-based methods of analysis: "a way of thinking about how society works … treating linear models as representations of the actual social world" (Abbott 1988:170).

The danger of the symmetric fallacy is typically present when empirical studies estimate one and the same causal effect for an explanatory variable over the whole range of observations, and in particular, for both signs that these variables can take. This is immediately visible in a regression in first differences:

(1)     $\Delta \text{DepVar}_{it} = \alpha + \beta_1 \text{ x } \Delta \text{IndVar}_{it} + \varepsilon_{it}$

This model assumes that the increase in the dependent variable that is associated with an increase in the independent variable (when $\beta$ is positive) has the exact same size as the decrease in the dependent variable that is associated with a corresponding decrease in the independent variable. While linear models are an obvious example of this, it would be mistaken to conclude that symmetric reasoning is an artefact of the use of correlational analyses or linear models. Even studies using advanced statistical techniques often conceptualize causality as symmetric. Moreover, in a recent survey, Kuehn and Rohlfing (2016) find that also in qualitative and historical research – which often prides itself on its sensitivity towards causal complexity – asymmetric reasoning is virtually absent. Analyzing 15 quantitative and 15 qualitative studies from leading political science journals, they find that "all articles in the sample, except a single one, make symmetric causal arguments" (Kuehn and Rohlfing 2016:895).

In this paper, we argue that such a symmetric approach is often unwarranted, and that social scientists should take the possibility of asymmetric effects more seriously. We thus build on and extend the work of Stanley Lieberson, who, in his 1985 book *Making it Count,* warned that the practice of assuming symmetry could lead researchers to reject completely sound theories and to accept faulty ones (Lieberson 1985; for a recent restatement, see York and Light 2017). However, whereas Lieberson equated asymmetry with irreversibility, we explore a broader set of potential asymmetries.

Over the last decades, social scientists have explored a number of mechanisms on the micro and macro levels that can generate asymmetric relationships and thus allow them to develop Lieberson's intuition more systematically. Historical institutionalists, for example, have argued that causal processes are often irreversible due to path dependence and policy feedback (Mahoney 2000; Pierson 2000). Psychological research has long established that actors tend to perceive positive and negative stimuli differently (Kahneman and Tversky 1984). In addition, individual studies from several subfields of the social sciences have collected findings of asymmetric effects. However, these findings have not been consolidated into systematic

arguments. Nor have scholars worked out the conditions under which asymmetry is likely to occur. In this paper, we aim to fill this gap.

In order to do so, we proceed in four steps. Firstly, we argue that asymmetry is indeed a common phenomenon in many causal relationships in the social world. For the purposes of investigating social processes, debt can thus not simply be treated as negative wealth, exit as negative entry, or defeat as negative victory. In exploring this argument, we rely on psychological and institutionalist scholarship developed over the last three decades. Specifically, we argue that it is possible to identify at least three different types of mechanisms that generate asymmetry, which can be characterized as sequence-based, behavior-based, and configuration-based. In a second step, we demonstrate that testing for possible asymmetries can change or nuance research findings. To this end, we replicate two empirical studies and show how incorporating asymmetric effects modifies the conclusions of their analyses. In a third step, we develop rough guidelines for when researchers should expect asymmetry and how they can deal with it. As the existence of asymmetry often cannot be tested empirically due to the small number of reverse observations, it is important to have practical guidelines about when the assumption of symmetry may be unwarranted. The final section discusses the implications of widespread asymmetry for political analysis and policy-making.

The main message of the paper is very simple: social scientists should pay much more attention to the possibility of asymmetric effects. Given sufficient data, researchers can easily test whether a relationship is truly symmetric and should routinely do so.[3] When there is not enough data, researchers should be wary of drawing conclusions about situations for which they have few observations (such as deflation, declining trade exposure, or growing turnout). Finally, asymmetry does not only concern empirical research; it is also something scholars should reflect upon in theory-building.

Our argument is more a call for awareness than for a complete rethinking of research strategies. We follow Pierson, who characterized his own efforts to emphasize the importance of timing for social science scholarship as criticizing "strong tendencies associated with particular techniques or theoretical approaches, while accepting – indeed emphasizing – that there is nothing about these modes of inquiry that renders these tendencies logically necessary … The

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[3] Our aim is thus not to develop new methods for detecting asymmetry in data. When there are enough relevant observations, this is relatively straightforward (see also the recent discussion in the applied econometrics literature (Hatemi-J 2012). Instead, we want to raise awareness about the problem and develop guidelines for what to do when there are not enough relevant observations.

question, after all, is not just what a particular technique or theory is capable of doing in principle, but how and to what extent it is actually used in practice" (Pierson 2004). This neatly captures the logic of our critique as well. We do not deny that many indefensible claims of symmetry can be easily avoided. However, this should not remain a theoretical possibility; it needs to become an actual practice.

## 2    Asymmetry as a fundamental fact of the social world

When philosophers of science describe processes of causation as asymmetric, they employ the concept in the sense that causation is directed. A cause is said to be asymmetric with regard to its effect because the presence of the cause brings about the effect, but the presence of the effect does not bring about the cause. Noise causes headache but headache does not cause noise. On this ontological level, most if not all social and natural scientists subscribe to an asymmetric notion of causation. In fact, "true" causal symmetry – effects causing causes – runs counter to fundamental understandings of how the world works (for an extensive discussion, see Brady 2008; Faye 2015).

In social methodology, by contrast, the notion of causal asymmetry has been prominently used in discussions of different logics of explanation. In set-theoretic methodologies, asymmetry is closely linked to the notions of necessary and sufficient causal conditions. These are said to be "asymmetric," since the presence of sufficient conditions ensures certain effects, whereas we cannot infer anything from their absence – and vice versa for necessary conditions (Clark, Gilligan and Golder 2006; Mahoney, Goertz and Ragin, 2013; Ragin 2014).[4]

Our concept of "asymmetry" is different from both philosophical and set-theoretic accounts, since it does not concern the ontology of causation nor the logical implications of different types of causal conditions, but rather the effects of different realizations of the variables in question. Specifically, we define a causal relationship X → Y as asymmetric, if the effect of positive realizations of X is meaningfully and systematically different from the effect of

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[4] A related definition is offered by Rosenberg et al., who try to avoid deterministic notions of asymmetry and argue that "an asymmetric relationship is one in which the primary theorized role of X is not to increase or decrease the average value of Y—though it may do so incidentally—but rather to establish a limit on its variation" (Rosenberg, Knuppe and Braunmoeller 2018). That is, the presence of X may limit the possible values of Y, whereas the absence of X does not affect the range of possible values. We differ from this account because we focus specifically on mechanisms which are supposed to explain variation in the average value of Y.

negative realizations of X.[5] The effect of positive X may be bigger or smaller than the effect of negative X. In the extreme case of full irreversibility, only positive X affects Y, whereas negative X does not (or vice versa). However, asymmetry is not just a question of effect sizes, but also of the temporal structure of effects. In many cases, the long-term effects of positive and negative X may be the same, but the short-term effects may differ substantially.

We thus build on Lieberson (1985:63), who captured the basic distinction between symmetric and asymmetric causal relationships with the notions of bidirectionality and unidirectionality. Bidirectional (symmetric) relationships hold irrespective of the direction of change of the independent variable. Unidirectional (asymmetric) relationships, by contrast, are sensitive to the direction of change. Asymmetric relationships are thus characterized by the fact that "the change in the causally produced phenomenon is not of the same order of magnitude or direction when the cause is added as when it is taken away" (Clark et al. 2006:313). In line with York and Light (2017), we thus use "asymmetry" as a shorthand for "directional asymmetry."

The danger of ignoring such asymmetry is that researchers may end up rejecting valid theories or accepting faulty ones by testing them on data to which they are not supposed to apply. For example, they may fail to find evidence for a correct unidirectional theory by testing it on bi-directional data. Or they may interpret evidence from unidirectional data as support for a bi-directional theory which is in fact flawed.

While previous studies have already pointed out this danger and have emphasized that asymmetry is an important logical possibility, they have not developed a systematic typology of different sources of asymmetry, nor have they delineated conditions under which asymmetry is likely to occur (Lieberson 1985; York and Light 2017). Our contribution should thus be of particular interest to scholars who cannot simply test empirically for asymmetry, because they lack a sufficient number of reverse observations.

Why may causal relationships be asymmetric? Our basic argument is that many causal mechanisms used in the social sciences to explain how causes bring about effects are inherently asymmetric. Causal mechanisms can be defined as "the intervening processes through which one variable exerts a causal effect on another variable" (Mahoney 2000:531). They thus "serve

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[5] Thus, we take it for granted that it is useful to describe X as something that can vary along a single axis. Of course, this may not always be the case – e.g., when X describes different types of a typology.

to open the black box of lawlike probability statements" (Falleti and Lynch 2009).[6] Social mechanisms are supposed to work in a wide variety of empirical contexts. Hence, the fact that certain mechanisms and their components lead to asymmetric outcomes suggests that causal relationships in many different empirical fields display asymmetry as well (see Figure 1).

**Figure 1:** Asymmetric relationships and causal mechanisms
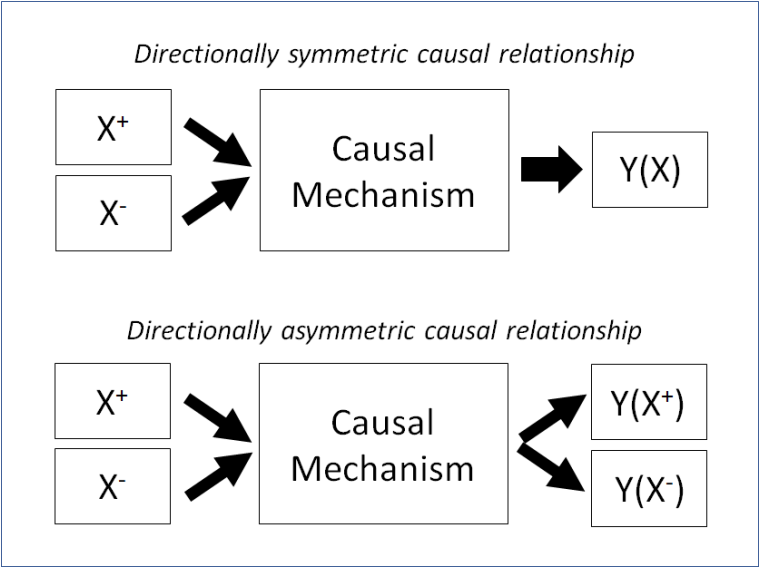


In the remainder of the paper, we demonstrate that important causal mechanisms identified in empirical analyses of different societal fields are inherently asymmetric, and that there are therefore good reasons to assume that directional asymmetry pervades large parts of the social world. To do so, we rely on prior research from very different subfields of the social sciences, which has provided reasons why specific questions required asymmetric answers. Here, we pull these diverse arguments together and bring out their common implication.

To organize our discussion, we distinguish three different types of mechanisms that have been identified as sources of asymmetry in different contexts. We call these types *sequential*, *behavioral*, and *configurational*. The sequential type is closely linked to the historical institutionalist literature which argues that social structures, once in place, often have feedback effects that alter how they are affected by subsequent changes in their environment. They may,

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[6] There is a huge debate about the proper definition of causal mechanisms: see Hedström and Ylikoski (2010) and the positions mentioned therein. The specifics of this debate are of less interest to us here. What matters to us is that many actual mechanisms identified in the empirical literature are inherently asymmetric.

for example, become self-stabilizing and thereby quasi-irreversible. The behavioral type, by contrast, has mainly been developed in cognitive psychology and subsequently been imported into different subfields of the social sciences. It is based on the idea that individuals or collectives react differently to different stimuli, depending on whether these stimuli are perceived as positive or negative. The configurational type, by contrast, goes back to structural restrictions on social processes and action – for example, to institutional rules, organizational features, or strategic interdependencies.

It is highly unlikely that our discussion captures all potential manifestations or explanations of asymmetry. This, however, strengthens our basic claim. If these major sources of asymmetry already justify our insistence that researchers should systematically reflect whether their claims are asymmetric, the existence of additional mechanisms generating asymmetry should make such reflection even more urgent.

It bears mentioning that asymmetric causal mechanisms are not the only reason why different realizations of an independent variable may have different effects on the dependent variable. For example, there may be floor or ceiling effects or other sources of non-linearity (Goertz, Hak and Dul 2012). Moreover, the effect of the causal variable will often be moderated by the presence or absence of certain background conditions. In this sense, asymmetry is just a special case of a much broader set of complexities challenging simple models of causality in the social world (Hall 2004). Yet we believe that asymmetry is a particularly important and at the same time "usable" type of causal complexity, and therefore merits separate treatment. As we will show, the concept of asymmetry allows us to capture a diverse set of causal mechanisms that work in a wide range of empirical fields. The concept is thus sufficiently broad to be used as an approximation of causal complexity in many different contexts. At the same time, it is sufficiently specific to delineate conditions under which it is likely to occur and conditions under which it is unlikely to be a problem. These conditions can help to formulate more nuanced theories, and to put these theories to more adequate empirical tests.

## 2.1 Sequential asymmetries

Probably the most prominent form of asymmetry discussed in the social sciences is irreversibility. This is also the type of asymmetry Lieberson (1985) has in mind. Here, the question is: if a cause X produces an outcome Y at a point in time $t_1$, will removing the cause at $t_2$ also make the effect disappear?

This type of asymmetry is analyzed most prominently in the literature on the role of time and sequencing – and in particular, in historical institutionalism (Skocpol and Pierson 2002; Thelen 1999). This literature argues that changes in social structures in one direction often influence the later likelihood, character, or magnitude of changes in another direction (Pierson 1993). Most discussions of such asymmetries deal with macro-level social phenomena and their asymmetric reaction to changes in micro-level conditions.

A famous example is Max Weber's quip of the "iron cage:" Protestant asceticism, according to Weber, was at the origins of modern industrial capitalism. At the turn of the twentieth century, this condition of emergence seemed to have disappeared. Yet modern capitalism had decoupled from its cultural foundations:

> Today the spirit of religious asceticism – whether finally, who knows? – has escaped from the cage. But victorious capitalism, since it rests on mechanical foundations, needs its support no longer (Weber 1984:181–182).

Weber thus described capitalism as a "sticky" phenomenon, in the sense that it is harder to overturn than it was to generate. Other examples of such sticky phenomena include welfare states, unemployment rates, or energy systems.

A sticky phenomenon will remain in place even if the conditions that brought it into existence are removed (David, 1985). The most prominent mechanisms behind such stickiness are path dependence and positive policy feedback (Campbell, 2012). The former describes processes in which established practices or structures make the pursuit of alternatives increasingly less beneficial over time, which renders established paths "quasi-irreversible" (Mahoney 2000). The latter describes processes in which policies and institutions change and solidify the number and alignment of political forces supporting them (Patashnik and Zelizer 2013; Schattschneider 1974). According to Paul Pierson, for example, a growing welfare state develops institutional ties to other parts of the economy and the political system (Pierson 1996). This creates a "policy ratchet" effect (Huber and Stephens 2001). Actors adapt their expectations and their behavior

to this new institutional context, thereby stabilizing it further. Therefore, no matter whether the growth of the welfare state was caused by the functional needs of an industrial society, the power resources of the labor movement, or the rational self-interest of business, a change in any of these variables would not make the welfare state decline symmetrically. Based on similar reasoning, one might also argue that the effects of unions on inequality are asymmetric. If inequality increased because weakened unions were not able to resist the deregulation of labor markets, for example, it may be unlikely that strengthened unions could successfully push for their re-regulation.

Other factors that often work as sources of path dependency are high setup costs and sunk costs. These mechanisms are visible in the link between demography and house prices. When populations grow, demand for housing increases and new houses will be built. Because housing is such a persistent structure, its supply cannot easily be reduced when demand is falling. A declining population will therefore have much stronger effects on house prices than a growing population (Maennig and Dust 2008). Similarly, the huge setup costs and high degree of technological complexity in energy systems mean that – once they are in place – they only react very slowly to changing marginal costs of different energy sources (Hughes 1983).

In all of these cases, what is required for creating a structure or having a process emerge is very different from what is required for reversing it. Sequential asymmetry typically concerns reactions of aggregate phenomena to "lower-level" changes.[7] It occurs because aggregate phenomena (e.g., institutions), once in place, alter the context, behavior, or typical causal effects of their constituent factors (e.g., actions), thereby affecting their own conditions of persistence or change. To put it simply, positive feedback effects create structures that are much easier to move in one direction than in the other.

While stability is the most prominent example of sequence-based asymmetry, researchers have recently analyzed directional complexities that are less clear-cut due to sequencing. The literature on incremental change in historical institutionalism argues that positive feedback is just one among many ways in which events at one point in time affect the likelihood or character of events at later points in time (Mahoney and Thelen 2010; Patashnik and Zelizer 2013).

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[7] As almost all the mechanisms responsible for asymmetry that we discuss are based, broadly speaking, on methodological individualist theoretical frameworks, we think that basing our discussion on this "nested hierarchy" view of explanation is pragmatically warranted. Mayntz provides an insightful overview of the methodological literature on the "causal regression from a higher to a lower level of reality" in the social sciences (Mayntz 2004).

A good example of the relevance of this literature for the issue of the directionality of causal relationships is Falleti's theory of the effects of political decentralization (Falleti 2005). Contingent on how and when the shifting of government functions to the subnational level began in a particular country, Falleti argues, later decentralization measures can have substantially different effects on the balance of power between territorial and national interests. Depending on the specific sequential context, decentralization measures can strengthen regional autonomy, leave it largely untouched, or even weaken it. For example, regions receiving administrative tasks without being entrusted with finances beforehand might have problems negotiating favorable terms of decentralization in other domains in later rounds, as they have become increasingly dependent financially. Hence, while certain sequences of decentralization follow a logic of path dependence in favor of increasing regional autonomy, others have different directional properties. In this example, a seemingly trivial causal relationship – formal decentralization increasing substantial decentralization – only holds in a specific sequence of events.

One of the main lessons of the recent literature on incremental change for social methodology is that feedback effects occur through a variety of mechanisms, many of which are not self-reinforcing. Nonetheless, they make attention to sequence important, as typical causal relationships may look different at different points in time.


2.2    Behavioral asymmetries


Sequential asymmetries are inherently temporal, as feedback effects do not emerge instantaneously but necessarily require time. This temporal dimension is also very clearly captured in the concept of irreversibility, with its notion of prior and later events.

Asymmetry, however, does not require a temporal dimension.[8] This is demonstrated by a second, very different set of mechanisms generating asymmetry, which might be called

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[8] Here, we go beyond Lieberson's account, which analyzed asymmetry primarily as a question of reversibility. We also deviate from his view that "asymmetry cannot be assessed using only cross-sectional data" (York and Light 2017: 4). There is no reason why behavioral asymmetry should not occur in a pure cross section of actors who are exposed to different stimuli. This stimulus does not have to be short; it can be an event that takes days, weeks, or even years (like a recession). Similarly, the behavioral reaction can occur weeks, months, or years after the event

"behavioral." Asymmetry occurs because the reaction of individual or collective actors to events or processes perceived as positive changes differs from their reaction to corresponding negative changes. Thus, it characterizes structures that can, in principle, move freely in any direction, but where the effect of the independent variable differs by the direction of change.

The most well-developed theoretical accounts of such behavioral asymmetries have been worked out in cognitive psychology. There, the fundamental mechanism behind asymmetric reactions is that individuals perceive or evaluate experiences they classify as positive differently from those they frame as negative. Typically, this means that they display loss aversion (Kahneman and Tversky 1979, 1984), or more generally, "negativity bias" (Soroka 2014).[9] An influential application of this observation in political science is "grievance asymmetry:" voters seem to punish governments for economic recessions but do not reward them for economic booms (Bloom and Price 1975; Mueller 1970; Nannestad and Paldam 1997; Soroka 2014). Their behavior in the voting booth is thus an asymmetric reaction to economic developments before the election. Other examples include trust in public institutions like the police (Skogan 2006) or courts (Gibson and Nelson 2015), which are much more strongly affected by negative experiences than by positive ones. On the macro level, this negativity bias can lead to big differences between the politics of credit claiming and the politics of blame avoidance (Weaver 1986). Soroka (2014) provides a wide-ranging discussion of "negativity" in political processes, which he also traces to fundamental psychological processes.

While negativity is usually cited with regard to individual behavior, similar attributions of positive or negative evaluations can also play a role in the analysis of collective actors. Certain discourses attach different meanings to events that are perceived as positive or negative and thus suggest that these events require asymmetric reactions. For example, political parties may react differently to losing votes than to gains in elections. Another instructive example is provided by John Maynard Keynes's hopeless attempts in the 1940s to convince world leaders of an international monetary system that puts pressures for adjustment symmetrically on debtors and creditors. When American negotiators blocked Keynes's proposal, they were able to build on deep-seated cultural beliefs that debtors have a more "innate" responsibility to adjust in times of crisis than creditors (Steil 2013). This cultural pattern of asymmetric blame attribution

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(e.g., if it is a vote in an election or a new party manifesto). What matters is that the passage of time in itself is not a relevant factor here.

[9] For systematic discussions of "prospect theory" in international relations and political science, see Levy (1997) and Mercer (2005).

in times of international financial crises is also visible in the euro crisis (De Grauwe 2013). Such asymmetries do not rest on basic individual psychological traits, but emerge from collective beliefs about how the world does or should work and what meaning should be attached to different behaviors. Yet their effects are very similar to those of individual traits: positive and negative realizations of the same phenomenon are conceptualized differently and therefore trigger very different reactions.

## 2.3    Configurational asymmetries

A third source of asymmetry, finally, is present when structural restrictions on actors' behavior lead them to react differently to different types of events. Here, asymmetry is again instantaneous, but it is not based on different perceptions of positive and negative stimuli, but rather on different capacities to react to them. To put it simply: even if an actor would, in principle, wish to react symmetrically to different events, the configuration of the context in which he acts prevents him from doing so.

A particular clear example of this source of asymmetry is formal institutional rules: central banks often react differently to macroeconomic changes in opposite directions due to their institutional mission (Vermeiren 2017). When inflation exceeds the central bank's target, it reacts much more forcefully than when inflation falls short of the target. Similarly, balanced budget rules may force governments to cut spending when unemployment grows, but do not determine the political reaction to falling unemployment. Such institutional causes of asymmetries do not have to be devised intentionally, as Fritz Scharpf's explanation of the asymmetry between liberalization and state-building in European integration makes clear: Even if events that potentially stimulate state-building and events that potentially stimulate liberalization happen with equal frequency, the long-term outcome will be more liberalization. State-building efforts are regularly blocked by majority and unanimity requirements in the EU's governing bodies, while liberalization can proceed through the European Court of Justice's interpretation of the European treaties. The ECJ *nolens volens* acts as an agent of liberalization, because it can only strike down existing regulations but cannot generate new ones (Scharpf 2009).

Formal institutions are not the only structural conditions that shape actors' reactions to different stimuli. For example, a literature in economics discusses whether market structure affects how

quickly falling or rising input prices affect consumer prices (Peltzman 2000). Firms in oligopolistic markets may find it easier to avoid a pass-through of falling input costs to their customers than firms in atomistic markets. However, both types of firms may pass through cost increases equally quickly. A good example are gas stations, which are said to increase gas prices immediately whenever oil prices rise, but do not reduce gas prices as quickly when oil prices fall. Similarly, Soroka (2014), in his behavioral discussion of negativity bias in the media, suggests that the competitiveness of the media market may also contribute to the dominance of negative stories. Thus, strategic interdependencies may be a source of systematic asymmetries.

Similarly, asymmetry can also be due to power structures in society. A good example is the often-stated asymmetry between the conditions that support policies favoring the interests of capital and those favoring the interests of labor. Theories of "structural power" maintain that as long as capital has better exit options than labor, politics will be systematically skewed towards the interests of business (Block 1977; Kalecki 1943; Lindblom 1977; Woll 2015). Hence, assuming symmetrical effects of other, more contingent influences on the balance of power between classes will often be misleading. For example, rising unemployment may allow capital to successfully push for deregulation, but falling unemployment will not allow labor to push for re-regulation.

To summarize our theoretical discussion, we can locate at least three different types of mechanisms that can generate asymmetric causal relationships. Asymmetry may occur due to sequencing and the occurrence of path dependency and policy feedback. It may also be due to different perceptions of positive and negative events, which may be due to fundamental psychological processes or culturally emergent discourses. Finally, asymmetries may occur through configurational constraints on actors' capacity to act in a certain way. As the examples we discussed show, asymmetries can occur in a wide range of social phenomena and through a set of very different mechanisms. This gives us all the more reason to conclude that asymmetry may be a fundamental fact of the social world.


## 3    Empirical examples


Based on our discussion of a diverse set of literatures, we conclude that asymmetry indeed pervades many social processes. Empirical research thus needs to be attentive to potential asymmetric effects. And yet, attention to asymmetry is rather uneven and unsystematic. While

there are scattered examples of studies explicitly discussing asymmetry across many subfields (see the examples quoted above), a systematic concern for asymmetry has mainly been restricted to specific areas like welfare state retrenchment.

However, results of studies in many other fields of the social sciences could also become more nuanced if these studies took potential asymmetries into account. To demonstrate this, we discuss two examples of published empirical work that assume symmetrical effects and show how sensitivity to potential asymmetries modifies the respective results. Our selection of studies is largely based on the public availability of replication materials and on a sufficient number of reverse observations in the dataset.[10] We do not aim to discuss all aspects of these studies – which contain several levels of analysis – but focus on one important aspect in which asymmetry is clearly important.

Our first example is the study "Everything to Everyone: The Electoral Consequences of the Broad-Appeal Strategy in Europe" by Zeynep Sömer-Topcu (2015), published in the *American Journal of Political Science*. Sömer-Topcu argues that parties in multiparty systems can win votes by using a "broad appeal strategy." Using changes in voters' perceptual disagreement about a party's position on the left-right scale as a measure for the use of a broad appeal strategy, she finds that "parties do indeed gain votes when they broaden their appeal" (p. 842). We read this as being a unidirectional claim. Yet the paper tests it on a bi-directional measure: the measure of the broad appeal strategy declines in 91 of 241 observations. Therefore, Table 1 replicates the paper's original analysis (Model 1) and then adds the distinction between cases of growing and declining perceptual disagreement (Model 2). The results suggest that the significant effect of changes in perceptual disagreement is in fact not driven by parties that broaden their appeal, but by parties that narrow their appeal: parties do *not* win votes when voters are increasingly unable to locate them, but lose votes when their profile becomes fixed and narrow. What may sound like a purely semantic difference indeed suggests a more nuanced interpretation of the political process. Whereas the "broadening helps" interpretation suggests that parties which have so far attracted a relatively homogenous group of voters can win more votes by broadening their appeals, the "narrowing hurts" interpretation implies that this is not a promising strategy. Instead, it turns the spotlight on parties that have already assembled a diverse voter coalition and suggests that they can seriously harm their electoral prospects by narrowing their appeal.

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[10] This is also why we only select quantitative studies: they allow for simple replication which clearly demonstrates potential asymmetries. Our general point, however, applies equally to qualitative studies.

**Table 1:** Replication of the regression of Somer-Topcu 2015, Table 2.

| Effect on vote share | Symmetric | Asymmetric |
|---|---|---|
| Δ Perceptual disagreement | 23.091** | |
| | (7.081) | |
| Increase percept disagreement | | 5.134 |
| | | (12.803) |
| Decrease percept disagreement | | 42.090** |
| | | (13.923) |
| Party moderation | -2.443** | -2.319** |
| | (0.744) | (0.774) |
| In government | -4.205*** | -4.270*** |
| | (1.095) | (1.062) |
| GDP per capita growth (t) | -0.247 | -0.255 |
| | (0.141) | (0.147) |
| Government × GDP growth | 0.589 | 0.591 |
| | (0.331) | (0.313) |
| Single-issue party | -0.531 | -0.210 |
| | (0.851) | (0.875) |
| Vote change (t–1) LDV | -0.401*** | -0.410*** |
| | (0.073) | (0.073) |
| *Observations* | 241 | 241 |

Standard errors in parentheses
*Dependent variable is change in party vote share.*

Our second example is the study "Status threat, not economic hardship, explains the 2016 presidential vote" by Diana Mutz, published in the *Proceedings of the National Academy of Sciences*, which examines support for Donald Trump in the 2016 US election (Mutz, 2018). Mutz analyzes two common explanations for Trump's success, which she calls the "left behind

thesis" and "dominant group status threat." According to the former, "those who lost jobs or experienced stagnant wages […] punished the incumbent party for their economic misfortunes" (Mutz 2018:1). According to the latter, "status threat felt by the dwindling proportion of traditionally high-status Americans (i.e., whites, Christians, and men) as well as by those who perceive America's global dominance as threatened combined to increase support for [Trump]" (ibid.).

Both hypotheses are unidirectional. They make a prediction about the behavior of voters who experienced economic losses or growing status threat but do not make explicit predictions about the effect of changes in the other direction.

The paper's empirical framework, however, implicitly treats them as bi-directional. It uses a unique panel data set, in which the same voters were interviewed in 2012 and 2016, and estimates fixed effect models in levels.[11] This allows her to analyze how changes in individual perceptions relate to changes in support for political parties. It assumes, however, that positive and negative changes have the same effect on political support.

Of the two dependent variables used in the paper, we reanalyze the "feeling thermometer advantage for the Republican candidate relative to the Democratic candidate" (ibid.:3) and evaluate three specific conclusions, namely that

1) "there is little to no evidence that those whose incomes declined or whose incomes increased to a lesser extent than others' incomes were more likely to support Trump" (ibid.:5);

2) "[t]he large significant coefficient associated with perceived change in the national economy is consistent with the idea that those perceiving the economy as improving were less likely to defect toward the Republicans" (ibid.:5);

3) "increases in SDO [social dominance orientation] significantly predicted changes in […] Republican thermometer advantage" (ibid.:5).

The first claim is operationalized by three measures of individual economic well-being, the second claim by the perception of the state of the national economy, and the third claim by a

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[11] With two periods, a fixed effect model is identical to a specification in first differences (Angrist and Pischke 2009: 224). We thus estimate our models in first differences, as this allows us to more straightforwardly check for asymmetry.

"social dominance orientation (SDO) scale, tapping individual differences in support for hierarchy over equality" (ibid:3).

Importantly, all these independent variables show a large variance. For example, 28 percent of respondents report falling income, 29 percent stable income, and 43 percent increasing income. There are thus sufficient negative and positive changes to split up the sample and still estimate effects reasonably precisely.[12]

Because some of the data used in Mutz's analysis (the regional economic context) were not released with the replication data set, we cannot exactly replicate the paper's main specification. Still, our first specification in Table 2, in which we use a somewhat reduced set of covariates, seems to support all three of Mutz's findings. Change in the national economy and change in SDO are significantly associated with support for Trump, whereas change in the measures of individual economic well-being (family income, perceptions of family finances, perceptions of trade effects) do not have significant effects.

This latter finding is also largely confirmed by a model in which we split the three measures of individual economic changes into positive and negative changes (Model 2). While there is a now a stronger effect of negative changes in income and perceptions of family finances, these do not reach statistical significance. However, this is partly because the effect of individual perceptions is soaked up by the perception of the national economy. If we remove this covariate from the regression, the effect of negative (but not positive) perceptions of individual financial situation becomes highly significant (not shown).

There is more evidence of asymmetry with regard to the second claim. While the perception of an improving economy is indeed associated with a decrease in support for Trump, the perception of a deteriorating economy is associated with a much stronger increase in support for Trump (the difference between the two is significant at $p = 0.026$). Finally, with regard to claim 3, there is no evidence for stronger support for Trump among those whose social dominance orientation increased. Instead, the significant aggregate effect is entirely driven by those whose social dominance orientation decreased and who became less likely to support Trump (the difference between the two groups, however, fails to reach statistical significance at $p = 0.166$).

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[12] Mutz also uses a fourth measure of individual experience, looking for work, which we exclude because only seven percent of respondents changed their position. Including it does not affect our results.

We do not aim to systematically interpret these findings in this paper. Still, we think that an asymmetric analysis suggests a somewhat more nuanced interpretation of the reasons for Trump's success. In particular, it suggests that increased support for Clinton and increased support for Trump may have been driven by somewhat different mechanisms on the individual level. At the same time, it is clear that our analyses do not do full justice to both papers we re-analyzed. A much more extensive analysis would be necessary in order to claim that their findings actually do need to be reinterpreted. In particular, both papers contain other analyses (a cross-sectional analysis in Mutz, an individual-level analysis in Somer-Topcu) which we have not looked at here. Nevertheless, the examples should have demonstrated that empirical results are indeed sensitive to the question of asymmetry and that asymmetry can be an empirically relevant phenomenon in different contexts. We now go on to discuss what researchers can and should do about it.

**Table 2:** Replication of the analysis of Mutz 2018, Table 1

| | (1) Replication | (2) Claim 1 | (3) Claim 2 | (4) Claim 3 |
|---|---|---|---|---|
| Family income | 0.013 | | | |
| | (0.045) | | | |
| Income up | | 0.124+ | 0.132+ | 0.134+ |
| | | (0.071) | (0.070) | (0.070) |
| Income down | | -0.111 | -0.122 | -0.124+ |
| | | (0.075) | (0.075) | (0.075) |
| Pers finances | 0.004 | | | |
| | (0.132) | | | |
| Pers finances + | | 0.146 | 0.090 | 0.096 |
| | | (0.194) | (0.195) | (0.195) |
| Pers finances - | | -0.211 | -0.108 | -0.112 |
| | | (0.225) | (0.229) | (0.229) |
| Pers effect trade | -0.157 | | | |
| | (0.110) | | | |
| Pers effect trade + | | -0.120 | -0.141 | -0.137 |
| | | (0.180) | (0.180) | (0.179) |
| Pers effects trade - | | -0.180 | -0.135 | -0.149 |
| | | (0.189) | (0.190) | (0.190) |
| Nat economy | -0.686*** | -0.677*** | | |
| | (0.121) | (0.121) | | |
| Nat economy + | | | -0.401* | -0.396* |
| | | | (0.173) | (0.173) |
| Nat economy - | | | -1.063*** | -1.058*** |
| | | | (0.211) | (0.211) |
| SDO | 0.160* | 0.154* | 0.146* | |
| | (0.071) | (0.071) | (0.071) | |
| SDO + | | | | 0.020 |
| | | | | (0.116) |
| SDO - | | | | 0.306* |
| | | | | (0.135) |
| Party ID | -0.824*** | -0.807*** | -0.768*** | -0.759*** |
| | (0.212) | (0.212) | (0.212) | (0.212) |
| Issue opinion trade | -0.004 | -0.014 | -0.001 | -0.017 |
| | (0.079) | (0.079) | (0.079) | (0.079) |
| Issue opin immigration | 0.006 | -0.012 | 0.010 | -0.005 |
| | (0.089) | (0.089) | (0.089) | (0.089) |
| Issue opinion China | 0.209* | 0.210* | 0.194* | 0.213* |
| | (0.085) | (0.085) | (0.085) | (0.085) |
| Perceived distance of Democrat on trade | 0.176** | 0.173** | 0.168* | 0.173** |
| | (0.067) | (0.067) | (0.067) | (0.067) |
| Perceived distance of Democrat on immigration | 0.249** | 0.241** | 0.246** | 0.246** |
| | (0.077) | (0.077) | (0.077) | (0.077) |
| Perceived distance of Democrat on China | 0.346*** | 0.341*** | 0.333*** | 0.347*** |
| | (0.072) | (0.072) | (0.072) | (0.072) |

|  |  |  |  |  |
|---|---|---|---|---|
| Perceived distance of Republican on trade | -0.188** | -0.188** | -0.195** | -0.191** |
|  | (0.064) | (0.064) | (0.064) | (0.064) |
| Perceived distance of Republican on immigration | -0.138* | -0.133* | -0.145* | -0.136* |
|  | (0.061) | (0.061) | (0.061) | (0.061) |
| Perceived distance of Republican on China | -0.274*** | -0.267*** | -0.276*** | -0.265*** |
|  | (0.063) | (0.063) | (0.063) | (0.063) |
| Constant | -0.426** | -0.778*** | -0.939*** | -0.264 |
|  | (0.141) | (0.229) | (0.240) | (0.189) |
| N | 839 | 839 | 839 | 839 |
| r2 | 0.241 | 0.246 | 0.236 | 0.248 |

Standard errors in parentheses, + p<0.10 * p<0.05, ** p<0.01, *** p<0.001

## 4     When to expect asymmetry

Our empirical examples have demonstrated that the results of empirical studies can indeed change – or at least become more nuanced – once potential asymmetries are taken into account. Thus, whenever it is possible to test empirically for potential asymmetries, researchers should simply do so.[13] We therefore suggest shifting the burden of proof from researchers who claim asymmetry to those who claim symmetry. Right now, the standard assumption is that causal relationships hold symmetrically and those who question this have to provide evidence for their skepticism. In many cases, it would be very easy to turn this around. Since we ask researchers to show that their results are robust to the exclusion of individual cases, we should ask them to check whether the results also pass a simple test for asymmetry.[14]

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[13] Obviously, asymmetry can sometimes be ruled out from the beginning – for example, when variables can only change in one direction. This is true for individual-level variables like age or level of education. It simply does not make sense to ask what happens when individuals become younger. Asymmetry is also unlikely for certain macro variables, whose transitions, while in principle not irreversible, are hardly ever reversed. It is logically possible to ask what happens when a country takes away women's voting rights – but it is unlikely that this will occur in practice.

[14] In practice, empirically testing for asymmetry may not be quite as simple as it might seem, even if enough bi-directional observations are available. For example, some asymmetries may persist (and thus generate ratchet

In many cases, however, it will not be possible to determine empirically whether a process is symmetric or asymmetric because almost all observations concern movements in the same direction. Union density in developed economies has continuously declined over the last 40 years, so we simply lack observations for the question of how a strengthening of unions would affect, for example, their welfare states. The fact that there are not many observations, however, by no means implies that movements in the other direction are theoretically or empirically unimportant. Haffert and Mehrtens (2015), for example, show that progressive politicians often hold overoptimistic views of the effects of budget surpluses, based on a mistaken symmetric analogy with budget deficits. Such mistaken beliefs can affect policies – e.g., during times of fiscal consolidation. We therefore need theoretical expectations about when asymmetry is likely to occur. Building on our systematization of asymmetric causal mechanisms above, we develop rough guidelines for when researchers should take asymmetry into account.

As in our exposition of the three sources of asymmetry, we first discuss potential indicators of sequential asymmetry, followed by indicators of behavioral and configurational asymmetry. As noted above, asymmetry due to sequencing is often caused by specific forms of reciprocal causation. Hence, the key question is whether the aggregate outcomes of the given relationship have feedback effects on constituent factors. Fortunately, political scientists and historians have recently tried to come up with generalizable collections of conditions conducive to such feedback effects (Campbell, 2012). The literature on gradual institutional change, for example, provides collections of conditions that determine the direction and strength of institutions' feedback effects, such as the room institutions leave for deviant behavior, the possibilities for the reinterpretation of institutions, or the existence of alliances between challengers and supporters of existing institutions (Mahoney and Thelen, 2010). Furthermore, in their work on failed policies, Patashnik and Zelizer (2013) have distilled a number of stylized conditions that increase the probability of policy feedback. First and foremost, they reason that policies and institutions which offer immediate, clear-cut, and sizable benefits to large and well-defined segments of society increase the support for these policies over time. Good examples are Medicaid or homeownership policies in the US, while good examples for policies with delayed, intangible, and widely spread benefits would be climate change or trade agreements. Changes in government are thus unlikely to reverse the former but can potentially reverse the latter. Furthermore, policies differ in how far they replace preexisting competing structures and

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effects), whereas others may disappear over time (like asymmetric reactions to input price shocks). This would require slightly different estimation strategies (Meyer and von Cramon-Taubadel 2004).

thereby manage to gain a momentum of their own. Layered structures – Patashnik and Zelizer remind their readers of the history of tax reform – remain vulnerable to reversals and incremental perforation. One can expect these structures to more easily move in the direction of breakdown than in the direction of stability as they require continuous political investments to prevent incremental dissolution or replacement.

Another, more directly traceable indication of positive feedback is the amount of autonomous bureaucratic support policies or institutions receive. A good example is the spectacular rise of environmental policies since the late 1960s, which was, at least in parts, driven and secured by semi-autonomous state agencies (Uekötter, 2014). Structures can become unstable, by contrast, when social reality has changed since policy enactment. This is demonstrated by the abolishment of New Deal financial regulations in the decades before 2008, which, to many contemporaries, were made redundant by changing social reality (Krippner, 2011). Finally, asymmetry due to sequence is inherently temporal, as feedback effects do not emerge instantaneously but necessarily require time.

Predicting behavioral asymmetry is more difficult, as many of the circumstances conducive to it are based on the specific *structures of meaning* actors connect with institutions, events, or processes. Even Stuart Soroka (2014), in his comprehensive treatment of such asymmetries, shies away from a prediction of when such asymmetries may occur. One finding that he stresses repeatedly, however, is the importance of context: negative stimuli are particularly powerful in a context which is generally neutral to positive, whereas they may matter much less in a context that is already dominated by negativity. This echoes a finding from the literature on blame avoidance (Weaver, 1986) and welfare state reform, in which some authors suggest that politicians can behave in a risk-seeking manner when they are in situations of perceived losses (Vis, 2009). This suggests that researchers need to reflect about the general context of meaning in which the phenomenon that they investigate is embedded.

Another important signal of behavioral asymmetries can be found through an exploratory examination of political language. Researchers can investigate political debates and press coverage to search for indications of strong reference points and asymmetries between the framing of "positive" and "negative" changes of the independent variable in question. This should provide initial clues about the likelihood of asymmetry. A "balanced budget," for example, provides a very strong reference point. The fact that deteriorations of the budget balance are generally discussed in a strongly negative frame suggests that improvements may have weaker political consequences. Generally, political issues marked by strong loss aversion

reveal themselves in the language participants use when they discuss positive or negative changes, as these are framed, for instance, as "gains" and "losses," in terms of "regression" or "progress," or as "sustainable" and "unsustainable."

Finally, configurational asymmetry should be likely to occur when actors are confronted with strong organizational or institutional statutes, such as debt ceilings or debtor-centered processes to deal with international economic imbalances. Institutional rules often specify numerical goals – like the European Central Bank's two percent definition of price stability, or the Maastricht Treaty's three percent deficit limit – which shape actors' behavior.[15] If a deficit rises, the deficit limit forces policy-makers to react, while it does not prescribe any reaction to falling deficits.

Moreover, whenever actors (typically public or semi-public) operate on the basis of institutionally assigned competencies, it is likely that these competencies are asymmetric. Veto players, for example, can prevent changes from occurring but cannot generate change themselves. Fields that are structured by a huge number of institutional rules should thus be particularly likely to exhibit asymmetry. In these cases, a closer look at institutions and organizational structures would, in most instances, give researchers initial clues about the type and scope of asymmetries they may expect.

Configurational asymmetry can also occur when the outcome of an actor's behavior heavily depends on the behavior of other actors – for example, in an oligopolistic market, a party system, or the international state system. Here, equilibria may easily break down if a single actor deviates in one direction, while deviation in the other direction may not have major effects. A good example of this is the often-observed breakdowns of cartel discipline, where individual deviance can start price wars, while ending them in an orderly way may require collective efforts (Spar 1994; Stigler 1964).

We summarize our typology of different sources of asymmetry in Table 3. If one or more circumstances are present in the given cases, this suggests that asymmetry is a potential concern for the research project in question. In this case, researchers should explain very clearly for

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[15] The presence of numeric thresholds or goals does not automatically generate asymmetries, but may create other forms of non-linearities. For example, the behavior of companies may differ around size thresholds that determine whether they are subject to specific regulations. Moreover, the presence of numeric rules raises the question of the reference point around which a phenomenon behaves asymmetrically. So far, we have assumed that this is the status quo and that negative deviations from the status quo have different effects than positive deviations. If the numeric rule differs from the status quo, however, the asymmetries may be more complicated.

which values of the relevant variable they actually have sufficient observations. Moreover, they should discuss conceptually whether the potential asymmetry would be relevant for the interpretation of their results or not.

## 5 Conclusion and political implications

The basic claim of our paper is very simple. If we know the effects of certain realizations of an explanatory variable, this does not necessarily mean that we also know the effects of the opposite realizations. Moreover, if there are observations for both types of realizations, researchers should not use them uncritically to identify one and the same causal effect for both of them. This should be an almost trivial point to make. And yet, neglect of the asymmetric nature of many causal relationships is widespread in the social sciences. Hence, we urge researchers to be more careful, nuanced, and precise with respect to potential asymmetries.

In this conclusion, however, we have two additional goals. Firstly, we want to show that asymmetry should not be seen as a constraint on empirical research, but that it in fact constitutes a "usable" addition to our analytical toolkit for understanding economic, political, and social processes.[16] Secondly, we want to discuss some implications for the use of results from social scientific research in political reform.

Firstly, we believe that attention to asymmetry allows researchers to develop a more nuanced understanding of the causal relationships they investigate. Like attention to historical sequence or path dependence, it thus constitutes a "usable" addition to our analytical and conceptual toolkits for understanding economic, political, and social processes.

Analytically, a developed notion of asymmetry helps researchers to formulate more fine-grained theories and to describe their scope conditions more precisely. Very often, theoretical progress in the social sciences has come from the refinement of existing theories. Take the example of modernization theory: whereas early authors claimed that more economically developed countries were more likely to *become* democracies, later authors argued that such countries were only more likely to *remain* democracies (Przeworski and Limongi 1997). This is exactly the kind of refinement that we believe can be achieved by greater attention to asymmetry. In fact, the literatures on economic voting or welfare state retrenchment show how

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[16] On the criterion of "usability" in social theorizing, see Rueschemeyer (2009).

refining theories by incorporating asymmetric dynamics has increased their capacity to explain empirical phenomena.

**Table 3:** Types of asymmetry and indicators for their presence

| | Sequential asymmetry | | Behavioral asymmetry | | Configurational asymmetry | |
|---|---|---|---|---|---|---|
| | *Stickiness* | *Complex feedback* | *Individuals* | *Collective actors* | *Structural* | *Institutional* |
| *Level of analysis* | Macro, structures and institutions | Macro, structures and institutions | Micro, actors | Meso, collectives | Meso, collectives | Meso, institutions |
| *Temporal structure* | Time-bound | Time-bound | Instantaneous | Instantaneous | Instantaneous | Instantaneous |
| *Mechanisms* | Path dependency; Positive feedback | Reactive sequences | Reference dependence | Framing beliefs | Power imbalances; Strategic interdependence | Formalized rules; Organizational structures |
| *Indications* | Concentrated benefits; Autonomous bureaucratic support | Layered structures | Strong reference points | Blame or credit attribution | Asymmetric outside options | Asymmetric rules |
| *Examples* | Protestant ethic; Welfare state | Decentralization; Tax reform | Economic voting; Police encounters | Burdens in international adjustment | Price pass-through; Business power | Monetary policy; Fiscal policy |

Moreover, adding asymmetry to the conceptual toolkit can help to guide the attention of researchers to the specific politics concerned with processes or structures that behave in asymmetric ways. Conceptually, it helps to explain why different policy fields differ in their politics, or to elucidate other types of variation. Similar to arguments that explain differences of political strategies with the susceptibility of different institutional configurations to incremental change (Mahoney and Thelen 2010), asymmetry may be a sign of an altered structure of political conflict. To give an example, the momentum of nascent policies, like those in support of renewable energies, is often extremely sensitive to minor policy reversals. Small cutbacks, or even just slowing extensions, can be interpreted as signals of policy reversal, which locks supporters and opponents of the respective policies into intense political battles over seemingly minuscule adaptations in support schemes.

Secondly, our arguments are also highly relevant from a policy point of view, as symmetric reasoning pervades many political reform efforts. The rhetorical figure "problem Y was caused by development X, therefore attacking X will allow us to solve Y" is a common trope in political debates. To take a recent example, large parts of the public debate about the sources of populism are implicitly built on the premise that tackling these sources will allow us to reverse – or at least halt – the ascent of populist parties. Another instructive illustration is provided by the "progressive consolidation view" (Haffert/Mehrtens 2015), according to which fiscal consolidation allows states to win back fiscal capacity that they have lost in times of deficits. Take the example of the Social Democratic German Finance Minister Peer Steinbrück, who tried to convince members of the Bundestag to introduce a "debt brake" into the German constitution with the promise that fiscal consolidation would allow them to reverse the decline of fiscal capacity:

> [T]he federal budget is becoming increasingly ossified, and your room for maneuver – in particular, the room for maneuver of future generations of representatives – is getting smaller and smaller … those who want a capable state, who want to increase the room for maneuver of policy-makers and of future representatives, have to make sure that public debt and the interest burden are reduced (Steinbrück 2009, own translation).

Deficits have caused the capacity of the state to decline; therefore, surpluses will help to increase it again. Today, Germany's insistence on running a balanced budget – the so-called "schwarze Null," is justified with very similar arguments.

As the policies that have accompanied these arguments demonstrate, symmetric reasoning is not just a rhetorical device but has an important influence on policy-making. Opposition parties formulate their programs and governments determine their policies based on the assumption – or hope – that problematic developments can be reversed by removing the trigger that initially brought them about.

Based on our arguments, however, policy-makers will often be severely disappointed by the effects of policies based on symmetric reasoning. They would thus join earlier policy reversals that did not produce the intended effects. To take an example from development economics, few would doubt that excessive public deficits and trade policies aiming at autarky are core inhibitors of economic development in poor countries. As the history of the Washington Consensus by and large shows, however, neoliberal reforms in underdeveloped countries were not more successful than interventions based on previous diagnoses of the reasons for persistent underdevelopment (for a review of the literature, see Rodrik 2006).

We thus conclude that ignorance towards asymmetric effects has potentially harmful consequences for both social research and political reform. Researchers who do not think carefully about asymmetry may discard perfectly valid theories because they do not apply for the whole range of observations. Similarly, they may accept problematic theories too easily. Political reformers, in turn, may enact policies that are supposed to cure social ills but are just based on questionable reasoning from analogy. None of these mistakes is necessary. In fact, they could be easily avoided. This, however, requires greater awareness of and attention to the fact that the social world is deeply asymmetric.

# 6      References


Abbott, Andrew, "Transcending General Linear Reality," *Sociological Theory, 6*, 2 (1988): 169–186.

Angrist, Joshua D., and Jörn-Steffen Pischke, *Mostly Harmless Econometrics: An Empiricist's Companion* (Princeton, NJ: Princeton University Press, 1995).

Berg, Janine, ed., *Labour Markets, Institutions and Inequality. Building Just Societies in the 21st Century* (Cheltenham: Edward Elgar, 2015).

Block, Fred, "The Ruling Class Does Not Rule," *Socialist Revolution, 7,* 3 (1977): 6–28.

Bloom, Howard S. and H. Douglas Price, "Voter Response to Short-run Economic Conditions: The Asymmetric Effects of Prosperity and Recession," *American Political Science Review, 69*, 4 (1975): 1240–1254.

Brady, Henry E., Causation and Explanation in Social Science. In Janet M. Box-Steffensmeier, Henry E. Brady, and David Collier, eds., *The Oxford Handbook of Political Methodology*, pp. 217–249 (Oxford: Oxford University Press, 2008).

Campbell, Andrea, "Policy Makes Mass Politics," *Annual Review of Political Science, 15* (2012): 333–351.

Clark, William R., Michael J. Gilligan, and Matt Golder, "A Simple Multivariate Test for Asymmetric Hypotheses," *Political Analysis, 14* (2006): 311–331.

David, Paul A., "Clio and the Economics of QWERTY," *American Economic Review, 75*, 2 (1985): 332–337.

De Grauwe, Paul, *Design Failures in the Eurozone: Can they be fixed?* Discussion Paper (London: London School of Economics and Political Science, 2013).

Falleti, Tulia G., "A Sequential Theory of Decentralization: Latin American Cases in Comparative Perspective," *American Political Science Review, 99*, 3 (2005): 327–346.

Falleti, Tulia G. and Julia F. Lynch, "Context and Causal Mechanisms in Political Analysis," *Comparative Political Studies, 42,* 9 (2009): 1143–1166.

Faye, Jan, Backward Causation. In Edward N. Zalta, ed., *The Stanford Encyclopedia of Philosophy* (Stanford, CA, 2015).

Gibson, James L. and Michael J. Nelson, "Is the U.S. Supreme Court's Legitimacy Grounded in Performance Satisfaction and Ideology?," *American Journal of Political Science, 59,* 1 (2015): 162–174.

Goertz, Gary, Tony Hak and Jan Dul, "Ceilings and Floors: Where Are There No Observations?," *Sociological Methods and Research, 42*, 1 (2012): 3–40.

Haffert, Lukas and Philip Mehrtens, "From Austerity to Expansion? Consolidation, Budget Surpluses, and the Decline of Fiscal Capacity," *Politics and Society, 43,* 1 (2015): 119–148.

Hall, Peter A., Aligning Ontology and Methodology in Comparative Research. In Dietrich Rueschemeyer and James Mahoney, eds., *Comparative Historical Analysis in the Social Sciences,* pp. 373–404 (Cambridge: Cambridge University Press, 2004).

Hatemi-J, Abdulnasser, "Asymmetric Causality Tests with an Application," *Empirical Economics, 43*(2012): 447–456.

Hedström, Peter and Petri Ylikoski, "Causal Mechanisms in the Social Sciences," *Annual Review of Sociology, 36* (2010): 49–67.

Huber, Evelyne and John D. Stephens, *Development and Crisis of the Welfare State. Parties and Policies in Global Markets* (Chicago: University of Chicago Press, 2001).

Huber, Evelyne and John D. Stephens, "Income Inequality and Redistribution in Post-industrial Democracies: Demographic, Economic and Political Determinants". *Socio-Economic Review, 12*, 2 (2014): 245–267.

Hughes, Thomas P., *Networks of Power. Electrification in Western Society, 1880–1930* (Baltimore, London: John Hopkins University Press, 1983).

Jacobs, David and Lindsey Myers, "Union Strength, Neoliberalism, and Inequality. Contingent Political Analyses of U.S. Income Differences since 1950," *American Sociological Review, 79*, 4 (2014): 752–774.

Jaumotte, Florence and Carolina Osorio Buitron, *Inequality and Labor Market Institutions*. IMF Working Paper (Washington, DC: IMF, 2015).

Kahneman, Daniel and Amos Tversky, "Prospect Theory: An Analysis of Decision under Risk," *Econometrica, 47*, 2 (1979): 263–292.

Kahneman, Daniel and Amos Tversky, "Choices, Values, and Frames," *American Psychologist, 39*, 4 (1984): 341–350.

Kalecki, Michał, "Political Aspects of Full Employment," *Political Quarterly, 14*, 4 (1943): 322–330.

Krippner, Greta R, *Capitalizing on Crisis. The Political Origins of the Rise of Finance* (Cambridge: Harvard University Press, 2011).

Kristof, Nicholas, "The Cost of a Decline in Unions," *New York Times,* A25, 19 February, 2015.

Kuehn, David and Ingo Rohlfing, "Are There Really Two Cultures? A Pilot Study on the Application of Qualitative and Quantitative Methods in Political Science," *European Journal of Political Research, Online First* (2016).

Levy, Jack S., "Prospect Theory, Rational Choice, and International Relations," *International Studies Quarterly, 41,* 1 (1997): 87–112.

Lieberson, Stanley, *Making It Count: The Improvement of Social Research and Theory* (Berkeley: University of California Press, 1985).

Lindblom, Charles, *Politics and Markets* (New York: Basic Books, 1977).

Maennig, Wolfgang and Lisa Dust, "Shrinking and Growing Metropolitan Areas – Asymmetric Real Estate Price Reactions? The Case of German Single-Family Houses," *Regional Science and Urban Economics, 38*, 1 (2008): 63–69.

Mahoney, James, "Path Dependence in Historical Sociology," *Theory and Society, 29*, 4 (2000): 507–548.

Mahoney, James, Gary Goertz and Charles C. Ragin, Causal Models and Counterfactuals. In Stephen L. Morgan, ed., *Handbook of Causal Analysis for Social Research*, pp. 75–90 (New York: Springer, 2013).

Mahoney, James and Kathleen Thelen, *Explaining Institutional Change: Ambiguity, Agency and Power* (Cambridge: Cambridge University Press, 2010).

Mayntz, Renate, "Mechanisms in the Analysis of Social Macro-Phenomena," *Philosophy of the Social Sciences, 34*, 2 (2004): 237–259.

Mercer, Jonathan, "Prospect Theory and Political Science," *Annual Review of Political Science, 8* (2005): 1–21.

Meyer, Jochen and Stephan von Cramon-Taubadel, "Asymmetric Price Transmission: A Survey," *Journal of Agricultural Economics, 55*, 3 (2004): 581–611.

Mueller, John E., "Presidential popularity from Truman to Johnson," *American Political Science Review, 64* (1970): 18–39.

Mutz, Diana C., "Status Threat, Not Economic Hardship, Explains the 2016 Presidential Vote," *Proceedings of the National Academy of Sciences, 115*, 19 (2018): E4330–E4339.

Nannestad, Peter and Martin Paldam, "The Grievance Asymmetry Revisited: A Micro Study of Economic Voting in Denmark, 1986–1992," *European Journal of Political Economy, 13* (1997): 81–99.

Patashnik, Eric M. and Julian E. Zelizer, "The Struggle to Remake Politics: Liberal Reform and the Limits of Policy Feedback in the Contemporary American State," *Perspectives on Politics, 11*, 4 (2013): 1071–1087.

Peltzman, Sam, "Prices Rise Faster than They Fall," *Journal of Political Economy, 108*, 3 (2000): 466–502.

Pierson, Paul, "When Effect Becomes Cause: Policy Feedback and Political Change," *World Politics, 45*, 4 (1993): 595–628.

Pierson, Paul, "The New Politics of the Welfare State," *World Politics, 48* (1996): 143–179.

Pierson, Paul, "Increasing Returns, Path Dependence, and the Study of Politics," *American Political Science Review, 94*, 2 (2000): 251–268.

Pierson, Paul, *Politics in Time: History, Institutions, and Social Analysis* (Princeton: Princeton University Press, 2004).

Przeworski, Adam and Fernando Limongi, "Modernization: Theories and Facts," *World Politics, 49*, 2 (1997): 155–183.

Ragin, Charles C., *Redesigning Social Inquiry: Fuzzy Sets and Beyond* (Chicago: Chicago University Press, 2014).

Rodrik, Dani, "Goodbye Washington Consensus, Hello Washington Confusion? A Review of the World Bank's 'Economic Growth in the 1990s: Learning from a Decade of Reform'," *Journal of Economic Literature, XLIV* (2006): 973–987.

Rosenberg, Andrew S., Austin J. Knuppe and Bear F. Braunmoeller, "Unifying the Study of Asymmetric Hypotheses," *Political Analysis, 25*, 3 (2018): 381–401.

Rueschemeyer, Dietrich, *Usable Theory: Analytic Tools for Social and Political Research* (Princeton: Princeton University Press, 2009).

Scharpf, Fritz W., *The Double Asymmetry of European Integration – Or: Why the EU Cannot Be a Social Market Economy*. MPIfG Discussion Paper (Cologne: MPIfG, 2009).

Schattschneider, Elmer E., *Politics, Pressures and the Tariff. A Study of Free Private Enterprise in Pressure Politics, as Shown in the 1929–1930 Revision of the Tariff* (New York: Arno Press, 1974).

Skocpol, Theda and Paul Pierson, Historical Institutionalism in Contemporary Political Science. In Ira Katznelson and Helen V. Milner, eds., *Political Science: State of the Discipline*, pp. 693–721 (New York: Norton, 2002).

Skogan, Wesley C., "Asymmetry in the Impact of Encounters with Police," *Policing and Society, 16,* 2 (2006): 99–126.

Somer-Topcu, Zeynep, "Everything to Everyone: The Electoral Consequences of the Broad-Appeal Strategy in Europe," *American Journal of Political Science, 59*, 4 (2015): 841–854.

Soroka, Stuart N., *Negativity in Democratic Politics: Causes and Consequences* (Cambridge: Cambridge University Press, 2014).

Spar, Debora. 1994. *The Cooperative Edge: The Internal Politics of International Cartels*. Ithaca: Cornell University Press.

Steil, Benn, *The Battle of Bretton Woods: John Maynard Keynes, Harry Dexter White, and the Making of a New World Order* (Princeton: Princeton University Press, 2013).

Steinbrück, Peer, *Speech to the German Parliament on 29 May 2009* (Berlin: German Bundestag, 2009).

Stigler, George, "A Theory of Oligopoly," *Journal of Political Economy, 72,* 1 (1964): 44–61.

Streeck, Wolfgang and Kathleen Thelen, Introduction: Institutional Change in Advanced Political Economies. In Wolfgang Streeck and Kathleen Thelen, eds., *Beyond Continuity: Institutional Change in Advanced Political Economies*, pp. 1–39 (Oxford: Oxford University Press, 2005).

Thelen, Kathleen, "Historical Institutionalism in Comparative Politics," *Annual Review of Political Science, 2* (1999): 369–404.

Uekötter, Frank, *The Greenest Nation? A New History of German Environmentalism* (Cambridge, MA: MIT Press, 1999).

Vermeiren, Mattias, "One-size-fits-some! Capitalist diversity, sectoral interests and monetary policy in the euro area," *Review of International Political Economy 24,* 6 (2017): 929–957.

Vis, Barbara, "Governments and Unpopular Social Policy Reform: Biting the Bullet or Steering Clear?," *European Journal of Political Research, 48* (2009): 31–57.

Volscho, Thomas W. and Nathan J. Kelly, "The Rise of the Super-Rich: Power Resources, Taxes, Financial Markets, and the Dynamics of the Top 1 Percent, 1949 to 2008," *American Sociological Review, 77*, 5 (2012): 679–699.

Weaver, Kent R., "The Politics of Blame Avoidance," *Journal of Public Policy, 6,* 4 (1986): 371–398.

Weber, Max, *The Protestant Ethic and the Spirit of Capitalism* (London: Unwin Paperbacks, 1984).

Woll, Cornelia, "Politics in the Interest of Capital. A Not-So-Organized Combat," *Politics & Society 44,* 3 (2016): 373–391.

York, Richard and Ryan Light, "Directional Asymmetry in Sociological Analyses," *Socius, 3* (2017): 1–13.