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How to ‘measure’ ideas. Introducing the method of cognitive mapping to the domain of ideational policy studies

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ABSTRACT



Decades of study have greatly improved our understanding of the role of ideas in policy-making. General knowledge accumulation, however, has been slow, which may be caused by the limited availability of methods designed to study ideas. This article introduces the method of cognitive mapping (CM) and argues its value for ideational policy sciences. It starts with an overview of the methodological debate in the literature and methods in use, culminating in five requirements a method to analyze ideas should fulfil. Subsequently, the CM technique is introduced. Using a map of the Dutch Prime Minister Rutte and Central Bank Governor Knot, the article shows CM to fulfil four of the requirements as it helps to distinguish different forms of beliefs separately from their impact on policy and other relevant variables. Finally, a probability probe shows that CM-based expectations match Dutch governmental policies quite accurately, attesting to the validity of the method.


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KEYWORDS Cognitive mapping; ideational turn; policy ideas; belief system; methods; Eurozone crisis

Introduction

Since the ideational turn in policy and political science, there has been a proliferation of studies concerning the role of ideas in policy making. Despite wielding deep insights into whether, when and how ideas matter in different cases, accumulation of knowledge has proven to be difficult. There are several reasons for this. First, scholars interested in the role of ideas in policy making are active in a wide variety of disciplines – policy studies, European studies, foreign policy analysis, political psychology,

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political economy – and the exchange of knowledge across disciplines is limited (cf. Béland, 2019; Kamkhaji & Radaelli, 2022).¹ In addition, epistemological and ontological differences hamper the possibility of knowledge accumulation (Béland, 2016; Béland & Cox, 2010). Finally, the fact that the ideational turn remains somewhat of a conceptual minefield with scholars adopting different conceptions of what an idea or belief constitutes makes drawing general conclusions difficult.

In addition to these more theoretical explanations, there are also methodological hurdles. Establishing whether and how beliefs affect policy is a complex question and while methodological practices are being discussed, the literature review featured in this article confirms that scholars often do not make their methodological choices explicit in their publications. Moreover, although it is widely acknowledged that measuring ideas is ‘notoriously difficult’ (Kay, 2009), the debate on how to ‘measure’ ideas rarely goes beyond the question of what sources to use.

This article will address this lacuna in the literature. It will take inspiration from the domain of political psychology and organizational studies and introduce the method of Cognitive Mapping (CM) as a valuable addition to the toolbox of ideational policy scholars. CM is specifically designed to study ideas and has several advantages over other methods: It allows for qualitative and quantitative analysis, may be used deductive and inductively, and can be applied to any policy domain. Before introducing CM, the article provides an overview of the broader debate on methodology in the domain of ideational policy studies and derives five requirements that a method to measure ideas should ideally fulfil in order to be useful to ideational policy scholars. Subsequently, a literature review provides an overview of the methods that are currently used in the domain. After the introduction and evaluation of the method of cognitive mapping, the final section contains an illustration of the CM technique. Using the ideas of the Dutch Prime Minister Rutte and Central Bank Governor Klaas Knot concerning the Eurozone crisis, the article shows how CM can help to distinguish different forms of beliefs and reveal their content and strength separately from their impact on policy. In addition, it illustrates how cognitive maps may be used to derive expectations about how different ideas may affect policy. The plausibility probe that follows shows that the expectations derived from the cognitive map of Rutte match the policies pursued by his second government at a later stage of the crisis quite accurately and more so than those of Knot. In the conclusions, the strengths and weaknesses of the CM are revisited.

Ideas and policy making: the methodological debate

In a simplified form, most studies in the ideational policy domain pose the question as to what extent, and how ideas influence policy or foster policy

change. From a methodological perspective, there are five requirements that need to be fulfilled to be able to study this question.

First, studying the policy effects of ideas implies that scholars must find a way to empirically determine the nature of ideas separately from the policies they may influence as opposed to using a 'revealed ideas' strategy whereby the nature of beliefs is derived from the content of the policy (Baumgartner, 2014; Béland, 2016; Daigneault, 2014). Clearly defining central variables, using different forms of data collection and sources for the independent and dependent variable, and taking into account the temporal aspect of causation, may help scholars study ideas and policies 'as separate entities' (Béland, 2016).

Second, in the literature different forms of ideas are distinguished. While in the various subdisciplines different typologies are used, most scholars conceptualize belief systems as encompassing causal and normative beliefs and identify several different types of ideas, such as paradigms or instrumental beliefs (George, 1969; Goldstein & Keohane, 1993; Hall, 1993; Jenkins-Smith & Sabatier, 1993; Jervis, 2006; Kamkhaji & Radaelli, 2022; Tetlock, 1991). As different types of ideas are assumed to have different policy effects, it is essential to distinguish between them. For instance, some scholars assume that beliefs are structured hierarchically and that some types of ideas are more fundamental and thus exert a stronger influence in the policy making process (Hall, 1993; Renshon, 2008; Steinbruner, 1974). Moreover, it is often assumed that more fundamental beliefs are more stable and belief change is 'confined to the secondary aspects of belief systems' (Daigneault, 2014; Jenkins-Smith & Sabatier, 1993; Steinbruner, 1974; Tetlock, 1991; but see: Carstensen, 2011a; Kamkhaji & Radaelli, 2022; Princen & Van Esch, 2016). In order to help study the role of ideas in policy making, the chosen method should thus also be able to distinguish between different types of ideas and establish their strength. In addition, as many studies deal with the effects of ideational change or compare across cases, ideally the methodological toolset of policy scholars would help to systematically compare different ideas over time, domains and actors. One way to facilitate this is by quantifying ideas (Béland & Cox, 2010).

A third requirement that is less prominent in the methodological debate is that scholars must devise a way to plausibly and reliably derive ideas from their sources. The discussion on this topic focusses mainly on how to establish whether beliefs are genuine or sincere (Jacobs, 2015; Carstensen and Schmidt 2015). As we cannot read peoples' minds, to do this scholars must rely on the observable consequences of ideas like written accounts, speech acts or other behaviour (Goldstein & Keohane, 1993). In order to tap into actors' genuine beliefs it is often recommended to use private sources. However, private sources are scarce and not necessarily exempt from strategic considerations (Goldstein & Keohane, 1993; Schafer, 2014). Moreover, research has shown

that private and public sources often reveal similar patterns (Dyson & Raleigh, 2014; Marfleet, 2000; Renshon, 2009). On the other hand, using behaviour to establish genuine ideas instead increases the risk of falling into the 'revealed ideas' trap. Finally, as has become clear in these times of post-truth politics, ideas do not have to be true or sincere for them to have an impact on policy (cf. Béland & Cox, 2010; Malici & Malici, 2005). Of equal relevance to what sources to use, is the question of how actually to derive ideas from sources. However, this question is largely left unattended in the ideational policy literature (see below).

A fourth requirement derives from the fact that many other factors – like interests, institutions or power – influence policy, and that their effects should be measured separately from the effect of ideas (Béland, 2016; Parsons, 2002, 2016). Some may argue this is an impossible ambition, for rather than independent, ideas, interests, institutions and power are highly interwoven, or even constitutive of each other. But even if one believes these factors can be measured independently, it is not an easy task. A carefully crafted research design may help (Baumgartner, 2014; Parsons, 2016) to test whether ideas affect EU policies separate from interests, Parsons for instance selected cases in which ideas cross-cut prevailing lines of (material) interests. By showing that the ideas of actors with the same material interests differed, he was able to ascertain the independent influence of ideas (Parsons, 2002). Moreover, carefully designed most-similar case studies may also lend credibility to the analysis (Schmidt & Radaelli, 2004).

The final requirement is to establish actual causality rather than covariation between ideas and policies. Causality presumes covariation and for the cause to precede the effect. However, these are necessary rather than sufficient conditions for causation. To more plausibly ascertain causation, process tracing is often the most suitable choice (Blatter & Haverland, 2012; Campbell, 2002; George & Bennett, 2005; Jacobs, 2015).

The methods currently in use

So what methods are actually being used to establish the policy effects of ideas? A review of the literature² shows that 35 of the 108 articles selected are exclusively theoretical or conceptual in nature and do not include empirical research (see Table 1). Of the 73 empirical studies, 29 do not mention what methods were used. The remaining 44 show that the domain is methodologically pluralist: depending on their philosophy of science, research question, and their conceptualization of ideas, scholars employ very different methods and often rely on a combination of methods. All of these 44 publications mention their research design. The large majority rely on comparative (29) or single case studies (11) with seven using process tracing (two in combination with covariational analysis). 36 studies also provide information on

Table 1. Overview of methods used in ideational policy literature.

| Aim of article | | Research design | | Data collection | | Sources | | Data analysis | |
|----------------------------|------------|------------------------|------------|-------------------|------------|----------------------------|------------|------------------------------|------------|
| Type | Times used | Type | Times used | Type | Times used | Type | Times used | Type | Times used |
| Theoretical | 35 | Comparative Case Study | 29 | Document analysis | 28 | Speech acts | 15 | Qualitative content analysis | 9 |
| Empirical | 73 | Single Case Study | 11 | Interviews | 11 | Documents | 14 | Statistical analysis | 8 |
| | | Process tracing | 7 | Surveys | 5 | Interviews | 7 | Operational Code | 3 |
| | | Survey | 3 | Archival Research | 3 | Questionnaires | 6 | Discourse analysis | 2 |
| | | Experiment | 1 | Other | 6 | Secondary accounts (media) | 3 | Cognitive Mapping | 2 |
| | | Desk research | 1 | | | Primary accounts | 2 | Other | 9 |
| Total nr of studies | 108 | | 44 | | 36 | | 32 | | 28 |
| Total nr of methods | | | 59 | | 54 | | 47 | | 33 |

data collection, whereby a majority of 28 studies uses document analysis, sometimes combined with other methods. Interviews, surveys or archival research are far less prevalent. All these studies also mention the sources they use: 15 of these studies rely on speech acts (speeches, press conferences and press interviews), 14 use organizational documents. Interviews and questionnaires are used less frequently but many studies use multiple sources. Finally, and of key interest to this article, of the 73 empirical studies in the review, only 28 provide information about the way the data was analyzed. Nine of these rely on some form of qualitative content analysis, eight on statistical analysis, three use the operational code (OC) and both discourse analysis and the technique of cognitive mapping are used twice. Information on how ideas in particular were measured was even scarcer: 28 studies disclose the sources used to study ideas and 22 of the 73 studies explain how they analyzed these sources to establish the nature of ideas.

Measuring ideas, the lack of a state of the art

Information on current practices and especially on how to ‘measure’ ideas is thus rare in the ideational policy domain. Moreover, only two of the methods in use – OC and CM – were specifically designed to measure beliefs. Others – like qualitative content analysis, statistical analysis and discourse analysis – are generic political science methods. These methods do not offer standard ways to study ideas, so the way they derive ideas from their sources often differs per study. This makes it hard to compare and establish generic patterns across studies and cases (Béland & Cox, 2010; Schafer & Walker, 2006; Young & Schafer, 1998). Finally, as these generic methods are often used to study policymaking, also using them to establish the nature of the ideas increases the risk of falling into the ‘revealed ideas’ trap. Using a method specifically designed to study ideas may thus provide distinct benefits. Since the operational code focusses on foreign policy in specific while cognitive mapping can be applied to any subject of interest, this article proceeds to explore the value-added of cognitive mapping for policy studies (Young & Schafer, 1998).

Cognitive mapping

Cognitive mapping offers scholars a standardized way of studying ideas and has been successfully applied in the fields of political and social psychology, communication and organizational sciences (Axelrod, 1976; Bougon *et al.*, 1977; Boukes *et al.*, 2020; Laukkanen & Wang, 2016; Van Esch, 2012).

The CM technique rests upon the premise that ideas are reflected in spoken or written communication like speech acts, institutional documents, media sources and interviews. Whereas other techniques to derive ideas

from text use concepts or themes as their unit of analysis, the basis of a cognitive map is the relationship between the concepts (Axelrod, 1976). More specifically, to create a cognitive map all the causal and utility relationships between concepts are derived from a text. Utility relations are statements to the effect that concept x is 'good', 'in someone's interest' or 'in the general benefit'. Conducting a CM analysis thus reveals an actors' arguments (a leads to b) as well as their normative evaluations (b is a worthy cause/beneficial), and as such provides an in-depth analysis of the beliefs and underlying argumentation embedded in texts or speech acts.

In contrast to other qualitative text analyses, the annotation of texts for the CM technique is conducted in the same manner regardless of the topic at hand. Moreover, detailed coding-manuals exist, and earlier studies indicate that scholars need relatively little training to achieve good rates of inter-coder reliability (Axelrod, 1976; Hart, 1977; Young & Schafer, 1998). The method therefore forms a reliable alternative to more commonly used methods in ideational policy studies and may facilitate comparison across studies and knowledge accumulation.

After the standardization of concepts, the cognitive map is constructed by transforming the relations into a visual graph in which the concepts are depicted as points and the relations between these concepts as arrows (Axelrod, 1976; Young, 1996; Young & Schafer, 1998, see Figure 1). The relationships (arrows) in the map are attributed a sign to indicate whether

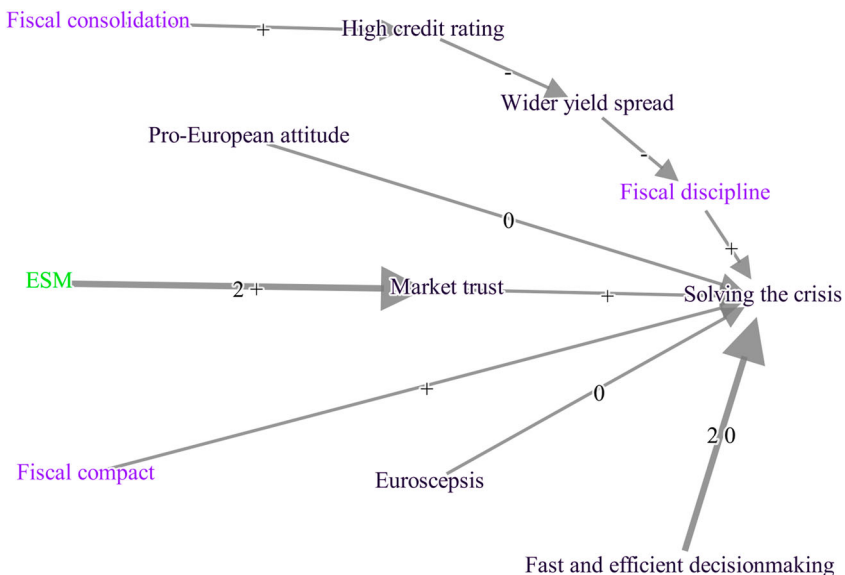


Figure 1. Excerpt from the CM of the Dutch PM Mark Rutte (the purple colour denotes Ordoliberal concepts; the green colour denotes Keynesian concepts).

a concept is perceived to contribute positively (+) or negatively (-) to an effect-concept, or whether the actor has (explicitly) indicated that a concept has no bearing on an effect-concept (0). To facilitate the coding and analysis of cognitive maps various tools and applications are available, like the cognitive mapping applications MAPS, Worldview and Gephi, and social network packages in R or Python (Bastian *et al.*, 2009; Young, 1996). All and all, the specific features of CM help to fulfil the third requirement identified above: offering scholars a standardized, transparent and reliable way to derive ideas from text.

Analysis

Another added value of cognitive mapping is that the relationships between concepts represented in a CM may be analyzed in a qualitative and quantitative manner, making the technique useful for a wide variety of research questions. The first way to analyze the beliefs represented in a cognitive map is by analyzing the paths in a map. A path is a sequence of concepts and relations. Any path leading out of a concept is called a *consequent path*, any path feeding into a concept is an *antecedent path*. By analyzing the relationships between the concepts in a path, scholars can establish if, and how concepts are seen to be related: causally or normatively, positively or negatively. [Figure 1](#) for instance, shows that according to the Dutch Prime Minister Rutte the European Stability Mechanism (ESM) contributes positively to solving the Eurozone crisis by means of increasing (+) market trust. By analyzing the full cognitive map in this manner, the argumentation underlying Rutte's ideas is revealed.

Analysis of the paths may also indicate to what extent a certain idea or concept is valued positively, negatively or ambiguously (evaluation of a concept, Ev). To establish this, the researcher identifies all consequent paths leading from a concept to a 'utility concept'. By analyzing the sign of the consequent path between a concept and a utility concept, it may be established whether an idea is valued positively, negatively or ambiguously (Hart, 1977). For instance, assuming that 'solving the crisis' is considered a positive goal, we can derive from [Figure 1](#) that 'fiscal discipline' is also valued positively as it contributes to 'solving the crisis', whereas 'wider yield spreads' is negatively evaluated.³ A CM analysis thus reveals both the nature of ideas as well as whether they are valued positively or negatively.

The second basis for the analysis of a CM are the weight of relations (W) and the centrality (C) and saliency (S) of the concepts. The weight of a relations is determined by how many times an actor refers to the relation in their texts or speech-acts. So, [Figure 1](#) shows that Rutte stated that the ESM will increase market trust twice, as this relation has a weight of two. The centrality of a concept is determined by establishing the number of

connections with other concepts. When also taking the weight of the relations into account, the saliency of a concept is established. In [Figure 1](#), for instance, the concept 'market trust' has a centrality of two as it has an ingoing connection to 'ESM' and an outgoing relation to 'solving the crisis' of one. However, it has a saliency of three as Rutte mentioned the former connection twice.⁴ Whereas centrality is used as a measure of the complexity of ideas, the weight and saliency are indicators of how strong a particular belief is. Transforming causal and utility relations into graphs facilitates a holistic qualitative analysis of the ideas and argumentations embedded in texts. On the other hand, measures like the weight, centrality and saliency allow for the quantification of the complexity and strength of ideas. As complexity and strength are regarded as consequential for the effect of ideas on policy in the literature, these measures may help answer important research questions in the field.⁵

In order to showcase how CM may be used to answer relevant questions in the ideational policy domain, the article will now analyze the cognitive maps of the Dutch PM Rutte and central bank governor Klaas Knot and show how CM helps to distinguish different forms of beliefs and reveal their content and strength separately from their impact on policy.⁶ This plausibility probe shows that the expectations derived from the cognitive map of Rutte quite accurately match the policies pursued by the Dutch government, more so than those of Knot.

Application of the CM method

When one wants to establish how, and to what extent ideas affect public policy, one way is to study the asserted ideas of actors and formulate expectations about what policies would logically follow from their beliefs. One could then establish to what extent these expectations align with the policies that were implemented and compare their fit with that of other causal factors like economic interests.

There are different ways to derive policy expectations from a CM, both in a deductive and inductive fashion. First, in some policy arenas clear (competing) policy paradigms can be distinguished. By treating these as ideal types and deconstructing them into arguments, the cognitive mapping technique can be used deductively to establish to what extent an actor adheres to a policy paradigm. As policy paradigms include quite specific ideas about preferred policy instruments, this makes it possible to derive expectations that may be compared to the policies that were actually pursued.

In the case of the Eurozone crisis, scholars have identified two competing paradigms underlying the policy debate: Keynesianism and Ordoliberalism. The Ordoliberal paradigm is characterized by a belief in the primacy of price stability which may be ensured by pursuing austerity and denouncing

monetary financing. In contrast, for Keynesians, economic growth and employment take precedence and economic stimulation is advocated to promote these goals during economic downturns. Keynesians are also more favourable to monetary financing and for a central bank to act as a lender of last resort (Dullien & Guérot, 2012; Hall, 2014).

To capture the paradigmatic orthodoxy of Rutte and Knot's belief system, all concepts in their CM were classified as either Keynesian, Ordoliberal or neutral (Van Esch *et al.*, 2018).⁷ The result of this analysis shows that during the period from May 2010 and July 2012 both Rutte and Knot's belief system are more Ordoliberal than Keynesian (see Figure 2).

From this finding we may derive the expectation that both Rutte and Knot will support policies in line with the Ordoliberal paradigm: they may be expected to promote austerity, an independent central bank, price stability and monetary policymaking based on expert analysis, but to reject economic stimulation, monetary financing and large governmental debts and deficits. Adverse effects on economic growth and employment should not lead them to reconsider their position. The expectations derived from this analysis are quite general, but this has the advantage of covering a wide range of situations.

Other types of (automated) text analysis are capable of classifying text into broad categories in a similar fashion (Ban, 2015). The nuance of the CM analysis, however, reveals that there are also considerable Keynesian elements in Rutte's and Knot's belief system, lending support to the thesis that paradigms are not incommensurable (Carstensen, 2011b; Princen & Van Esch, 2016). Moreover, due to the standardized way the CM technique works, we are also able to compare their scores to other leaders and conclude that

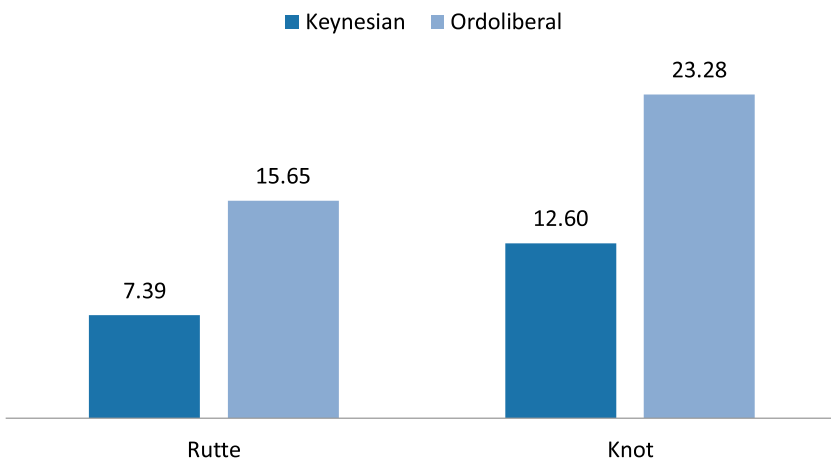


Figure 2. Rutte and Knot's paradigmatic beliefs (in % of aggregate saliency of the entire map).

internationally, the Dutch leaders have a relatively high leaning towards the Ordoliberalism (Van Esch *et al.*, 2018). In a similar way, we could also analyze changes in ideas over time, thereby fulfilling the third requirement discussed above (Bonham *et al.*, 1979; Van Esch, 2014).

In addition, the CM technique allows scholars to distinguish between different types of beliefs, thereby fulfilling the second requirement identified above. For instance, it is also possible to establish instrumental beliefs with CM. One way of doing this is to inductively identify a range of possible policy-instruments relevant in the policy area under study. For this, we used a larger set of cognitive maps regarding the Eurozone crisis to derive seven relevant policy measures: Stronger EU fiscal regulation, structural reforms, monetary measures by the ECB, economic stimulation, fiscal support, financial market measures and EMU reforms (Van Esch *et al.*, 2018). Comparing Rutte and Knot's maps shows that while they both lean towards an Ordoliberal approach, they differ in terms of their instrumental beliefs: Rutte favours implementing structural reforms and stronger fiscal regulation over making institutional reforms to the EMU, fiscal support and economic stimulation. He does not discuss financial market measures and ECB measures (see Figure 3). Knot favours interventions by the ECB over structural and EMU reforms and stronger EU fiscal regulation. In addition, he shows a similar limited support for providing fiscal aid as the PM and does not support economic stimulation or financial market measures. These findings thus allow us to compare the extent the instrumental ideas of Rutte and Knot influenced the Dutch management of the Eurozone crisis (see below).

Moreover, and pertaining to the fourth requirement identified above, the fact that CM can produce such concrete findings helps to distinguish the

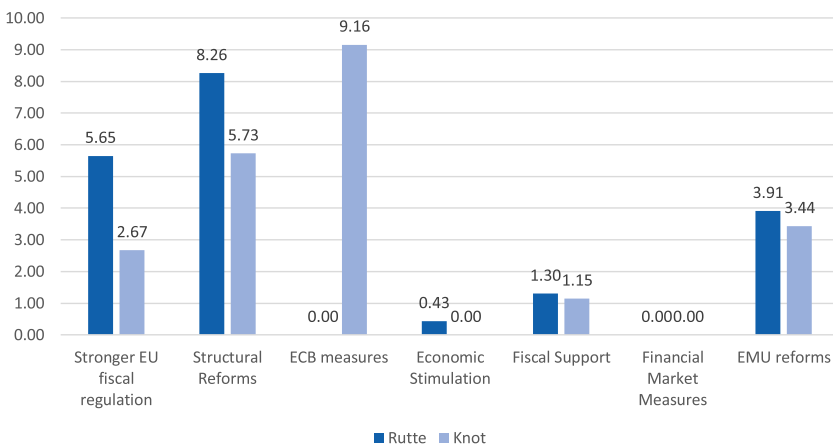


Figure 3. Rutte and Knot's instrumental beliefs (in % of aggregate saliency of the entire map).

policy effects of ideas from those of other theoretically relevant factors. The expected effects of Rutte's ideas, for instance, are markedly different from those based on an economic interest approach: The high level of exposure of the Dutch financial sector, for instance, would lead to the expectation that the Dutch government would support fiscal support and financial market measures rather than structural and institutional reforms and stronger fiscal regulation (Târlea *et al.*, 2019). In this way CM, may thus help to answer a core research question in the domain of policy sciences: To what extent are policies driven by ideas or economic interests?

Another strength of the CM technique lies in revealing the argumentation behind policy preferences by conducting a holistic narrative analysis of the ideas represented in a map. Analyzing the (antecedent) paths feeding into the concept 'solving the eurozone crisis' in Rutte and Knot's map, for instance, provides an in-depth understanding of the nature of the crisis and its solutions in their minds.

The excerpt in [Figure 1](#) reveals that Rutte identifies several economic measures that may help to solve the Eurozone crisis. Most of these are geared towards more fiscal discipline (fiscal consolidation, discipline and the fiscal compact), but Rutte also feels the ESM will have a positive effect. Interestingly, in the eyes of the PM these governmental actions exert their influence via markets forces: by increasing government's credit rating, reducing the spread of government bond yields and by reinforcing market trust. Finally, while Rutte also identifies several political or societal forces, like Euroscepticism and the nature of decision making, that he does not feel these affect the outcome of the crisis. Comparing this argumentation to the narrative of Knot reveals some fundamental differences (see [Appendix 2, Figure 2](#)): Knot's narrative focusses on measures in the monetary domain, like the ECB acting in a restrained way (sound single policy) and Eurobonds, but he explicitly dismisses these as having any influence on the crisis. Moreover, while Knot also identifies several measures to foster fiscal discipline, like the constitutional debt-brake and the enforcement of the Stability and Growth Pact (SGP), he again does not envisage them to contribute to solving the crisis. In his mind they are simply preconditions for the creation of Eurobonds. In the eyes of the Dutch Central Bank governor, only pragmatism will help to solve the crisis.

All in all, the narrative analysis of Rutte and Knot's maps provides an in-depth and nuanced understanding of the arguments underlying their belief system. It shows that even though they both adhere to the Ordoliberal paradigm, their underlying ideas about how to solve the crisis differ significantly. Similar analyses have been used by scholars to trace and provide an in-depth understanding of policy making and coalition formation in various domains (Hart, 1976, 1977; Van Esch, 2012).

Finally, taking full advantage of its graphical nature, CM can be used to establish the causal strength of the policy instruments identified in a map. For this we combine the narrative analysis with the quantitative measures. We start by assuming that the higher the *weight* of the link between cause and effect, the stronger actors believe in its causal effect. In addition, we assume that the larger the *distance* between the cause and the effect (the more logical steps it takes to explain the relationship between instrument and goal), the weaker the presumed causal power of the instrument (cf. Septer *et al.*, 2012; Shapiro & Bonham, 1973). On the basis of this, we propose that the *causal power* (CP) of an instrument on a particular goal may be established as follows (cf. Septer *et al.*, 2012): First, for each subsequent concept in the antecedent path, its *autonomous power* (AP) may be determined following the calculation:⁸

$$AP = Ev * W * (0.9^{(D-1)});$$

Whereby:

Ev = Evaluation of the cause concept (-1, 0, +1).

W = Weight of the relation.

D = Distance/steps to the effect concept.

To calculate the total *causal power* of a policy instrument, the AP-scores of all concepts in the path are multiplied:

$$CP = AP_1 * AP_2 * \dots * AP_i$$

In [Figure 1](#), the *causal power* of the concept 'ESM' (D = 2) runs via (W = 2, EV = +1) the concept 'market trust' (D = 1), which in turn positively feeds into (W = 1, EV = +1) 'solving the crisis'. The *causal power* of ESM is thus calculated as follows:

$$CP = (+1 * 2 * (0.9^{(2-1)}) * (+1 * 1 * (0.9^{(1-1)})) = 1.8$$

Scholars have used similar analyses to derive policy preferences in the domain of environmental and foreign policy decisions to identify the conditions under which ideas affect policies and even to run simulations of policy making processes (Bonham *et al.*, 1979; Hart, 1976).

The analysis of Rutte and Knot's narrative on the causes of the crisis and their preferred solutions shows that for Rutte the ESM has the highest *causal power* (see [Table 2](#)).⁹ However, as all other instruments imply stimulating fiscal discipline, austerity may be expected to be the most effective instrument to solve the Eurozone crisis in the mind of Rutte.

The scores for Knot reveal a similar strong preference for fiscal discipline (or rejection of fiscal expansionary policies). In addition, the governor is also expected to support stronger governance of the Eurozone as well as the flexibilization of the labour market and reduction of labour unit costs. Knot also identifies several measures that in his eyes worsen the crisis: given its high

Table 2. Instruments and their causal power to solve the Eurozone crisis in the minds of Rutte and Knot.

| Cause concept | Causal power | Effect concept |
|---------------------------------|--------------|--------------------|
| <i>Rutte</i> | | |
| ESM | +1.8 | Solving the crisis |
| Fiscal discipline | +1 | Solving the crisis |
| Fiscal compact | +1 | Solving the crisis |
| Fiscal consolidation | +0.53 | Solving the crisis |
| Respecting 3% rule | -1 | Eurozone crisis |
| 60% debt ratio | -1 | Eurozone crisis |
| Enforcement of the SGP | -1 | Eurozone crisis |
| Sufficiently strong sanctions | -0.9 | Eurozone crisis |
| <i>Knot</i> | | |
| Stronger governance of eurozone | -1.8 | Eurozone crisis |
| Fiscal discipline | -1.8 | Eurozone crisis |
| Reduction in labour unit costs | -1.8 | Eurozone crisis |
| Devaluation | -1.8 | Eurozone crisis |
| Flexible labour markets | -1.06 | Eurozone crisis |
| Increased economic surveillance | -1 | Eurozone crisis |
| ECB non standard policy | +2.13 | Eurozone crisis |
| Fiscal expansionary policy | +2 | Eurozone crisis |
| EMU | +1.46 | Eurozone crisis |
| European policy harmonization | +0.9 | Eurozone crisis |

causal power, he may in particular be expected to oppose ECB non-standard policies, like its interventions on the financial markets. Comparing these expectations to Dutch policy making in subsequent years provides a first indication of the extent to which Rutte's or Knot's ideas affected policymaking.¹⁰

Establishing 'effect'

Although the main aim of this article is to introduce the cognitive mapping technique, the real proof of the pudding lies in empirically testing to what extent the expectations derived from the CM analysis pan out. Conducting a full-blown study of how and to what extent Rutte and Knot's ideas influenced Dutch policy is beyond the scope of this article. However, to illustrate that CM indeed helps to separate ideas from policy, a first plausibility probe is conducted using a covariational analysis (Bonham *et al.*, 1979; Goldstein & Keohane, 1993). As both maps are based on speeches held between May 2010 and July 2012 (see Appendix 2; Schumacher *et al.*, 2019), the expectations derived from the CMs will be compared to the policies pursued and implemented by the Dutch Central Bank and second Rutte government from 5 November 2012 to 26 October 2017.

Going Dutch

In general, Dutch public policy can be confidently characterized as Ordoliberal. Over the years, subsequent Dutch governments and the central bank

have supported the independence of the European Central Bank and rejected expansive government policy and the mutualization of debt (Peeperkorn, 2020). Maintaining healthy government finances, for instance, is a longstanding governmental objective: since 1986 all party manifestos are analyzed by the Netherlands Bureau for Economic Policy Analysis to establish their effects on government finances. Showing a debt in these analyses is heavily scrutinized and can damage a party's electoral prospects (Parlement.com, 2020b).

This does not mean that the Netherlands never runs an excessive governmental deficit or debt. During the Eurozone crisis, the Netherlands ran deficits up to 5.2 and a debt up to 86.6 per cent thereby exceeding the SGP thresholds of 3 and 60 per cent of GDP for several years (Eurostat). However, the deviation remained smaller than the Eurozone average and the Netherlands was one of the first member states to abide by the rules of the Pact again. This was facilitated by the fact that the country enjoyed more positive GDP rates than its fellow Eurozone states, but also by the policy of fiscal consolidation pursued by the second Rutte government. This government consisted of a grand coalition of Rutte's liberal 'People's Party for Freedom and Democracy' (VVD) and the social-democratic labour party (PvdA). It came into office after the first Rutte government broke up in April of 2012 over a dispute about austerity measures. The Freedom Party (PVV) that was informally supporting the government in parliament refused to support the government's plans for 16bn austerity cutbacks (Voerman, 2014). Without these cutbacks the Dutch government would be unable to lower its deficit to the European norm of 3 per cent of GDP in 2013. Neither the governmental crisis nor the fact that Rutte I was a minority government, however, stood in the way of the Dutch support for, and ratification of the ESM. In May and July of 2012, the two chambers of the Dutch parliament ratified the ESM treaty with close to 2/3rds of a majority (Europa.nu, 2020a; Parlement.com, 2020a; Wasserfallen *et al.*, 2019).

In the elections following the fall of the Rutte I government, PM Rutte came out as the winner despite running on a programme that stressed the need for even larger domestic cutbacks of 24bn (Parlement.com, 2020a). In addition, the government took a strong stand on the management of the Eurozone crisis calling for strict monitoring of the government finances of the Eurozone states, significant structural reforms and automatic sanctions for transgression of the SGP rules. At the same time, it objected to the interference of the European Commission in member states that conformed to the Stability and Growth Pact and pushed back on the commissions' recommendation for the Netherlands to increase wages (Bekker, 2021). For the large part the Dutch labour party went along with these policies (Borgman & Weezel, 2018). In fact, as President of the Eurogroup, the social democrat Minister of Finance, Jeroen Dijsselbloem, would become the face of strict and unbending EU Ordoliberalism. Studies show that the Dutch EU negotiation positions

reflected these stands (Wasserfallen *et al.*, 2019). Moreover, in 2013, the Netherlands ratified the Fiscal Compact with an overwhelming majority of 112–33 in the first chamber and without taking a vote in the second chamber (Europa.nu, 2020b). Finally, while in 2015 a reform of the labour market was initiated, its aim was to reduce the negative consequences of the highly flexible Dutch labour market rather than to increase flexibilization or to reduce labour costs (Hoogenboom & Knecht, 2017). In the meantime, the ECB pursued non-standard policies by intervening on the financial markets and lowering interest rates to stimulate the economy. While the Dutch Central Bank Governor voted against increasing interest rates as early as 2013, it took until 2016 for him also to act upon his doubts about ECB interventions on the financial markets (Reuters, 2016).

Regarding the situation of Greece, in the heat of the 2012 election campaign Rutte promised the Dutch voters that there would be no more money for the Greeks.¹¹ He also stressed that it was up to states themselves to ensure that they could remain a member of the Euro. However, when states would make the effort, his government would be willing to provide support. Rutte opposed debt-reduction but was willing to extend Greece a longer term to payback the loans. If Greece would not be willing to reform, a Grexit could become inevitable. While not actively pursuing this goal, he felt other member states should prepare for this (Borgman & Weezel, 2018).

This became relevant when after the Syriza party was elected to government in January 2015, the Greek government started to push for a renegotiation of the current, second loan package. Close observers of these negotiations report that Rutte was the toughest hawk in the negotiation room, pleading to uphold stringent conditions for further fiscal discipline and structural reforms in exchange for the financial aid. Behind the scenes, however, the Dutch negotiators supported some debt relief (Van Esch, 2017; Wasserfallen *et al.*, 2019). Eventually, the renegotiations failed and when after the 'No' in the Greek referendum the Greek PM Tsipras returned to the negotiating table, Rutte as well as the Dutch parliament agreed to the third loan package which posed even harsher conditions than the abandoned second package.

A quick comparison between the expectations based on Rutte and Knot's CM and the policies pursued by the second Rutte government and the Dutch Central Bank, reveals that there is considerable covariation between their ideas and later governmental policies. Of the 13 ideas for which information was uncovered, on ten accounts the policies match Rutte's professed preferences, while the policies correspond to Knot's preferences in seven of the 13 cases (see Table 3). Moreover, the strong causal power of (the various forms) fiscal discipline in their CMs aligns with the Dutch policy priorities. Other ideas – like Knot's preferences regarding labour market policies – did not match the policies pursued. In the case of fiscal support, the conclusion is

Table 3. Congruence between Rutte and Knot's beliefs and Dutch policies regarding the Eurozone crisis (Small caps: matches expectations).

| | Expectations | | Dutch policy |
|---------------------------------------|--|---|---|
| | Rutte | Knot | |
| Paradigm | ORDO LIBERALISM | ORDO LIBERALISM | Consistently pursued |
| Instrumental beliefs (ranking) | STRUCTURAL REFORMS (1) | STRUCTURAL REFORMS (2) | Consistently advocated for others |
| | STRONGER FISCAL REGULATION (2) | STRONGER FISCAL REGULATION (4) | Consistently pursued |
| | EMU REFORMS (3) | EMU REFORMS (3) | Consistently pursued |
| | Fiscal support (4) | Fiscal support (5) | Verbally rejected but approved |
| | Economic stimulation (5) | Economic stimulation (6/7) | <i>Insufficient data</i> |
| | Financial market measures (6/7) | Financial market measures (6/7) | Negotiated against but approved |
| | ECB measures (6/7) | ECB measures (1) | Inconsistently pursued |
| Causal paths | ESM | | Ratified by 2/3rd majority |
| | FISCAL DISCIPLINE/ FISCAL CONSOLIDATION FISCAL COMPACT | FISCAL DISCIPLINE/(NON- EXPANSIONARY POLICY) | Consistently pursued |
| | RESPECTING 3% RULE/ 60% DEBT RATIO | | Pursued, ratified by large majority |
| | ENFORCEMENT OF THE SGP | | Consistently pursued |
| | SUFFICIENTLY STRONG SANCTIONS | | Consistently pursued |
| | | STRONGER GOVERNANCE EUROZONE Reduction labour unit costs/ Flexible labour markets | Consistently pursued Not pursued |
| | | Devaluation (by non-competitive states, would require exit from EMU) | Not actively pursued |
| | | INCREASED ECONOMIC SURVEILLANCE ECB non standard policy European policy harmonization | Consistently pursued Ambiguous <i>Indeterminate</i> |

ambiguous as Rutte explicitly spoke out against it but the negotiators and eventually the government and parliament agreed on it. Equally ambiguous is the conclusion regarding Knot's opposition to the non-standard ECB policies. Knot voted against lowering the interest rates twice, in 2013 and 2016. However, he voted against the ECB interventions on the financial market, which were initiated already in 2012, only once and as late as 2016. The expectations derived from the CM of Rutte thus show a greater correspondence to the Dutch policies than those of Knot. As indicated above, to establish causal effect we would need a more extensive study and a carefully crafted research design. However, these findings do suggest that cognitive

mapping may be a useful addition to the methodological toolkit in the realm of policy studies.

Conclusions

The analysis in this article shows that in ideational policy studies there is both a lack of discussion about how to actually measure ideas, as well as a scarcity of methodological tools that help scholars to study beliefs in a structured comparative manner. This lacuna hampers empirical research into the role of ideas, makes it hard to distinguish between ideas and policy, as well as between the causal effect of ideas of different actors and that of other independent variables. Moreover, it also makes it hard to draw comparison across cases and studies. This article argues that the method of cognitive mapping may help scholars overcome these methodological barriers.

Using the cognitive maps of the Dutch Prime Minister Mark Rutte and Central Bank Governor Klaas Knot representing their policy beliefs concerning the Eurozone crisis, the article shows how CM fulfils four of the five requirements needed to empirically study key questions in the ideational policy domain. First, using the CM technique enables and stimulates scholars to determine the nature and strength of ideas separate from the policies they are expected to influence. It does so by offering scholars a different technique from the regular political science methods that are also used to study policy. Moreover, CM forces scholars to be precise and transparent about the sources they use to derive the ideas from. CM thus creates a natural boundary between the key independent and dependent variable and helps scholars avoid the 'revealed ideas' pitfall.

Second, as illustrated in the case of Rutte and Knot, CM offers ways to distinguish between different types of ideas, making it possible to test theoretical relevant hypotheses about the effects of particular types of ideas on policy. Naturally, CM cannot answer questions regarding the 'sincerity' of actors' professed ideas any more than other methods. However, it does provide a systematic and transparent way in which to derive ideas from a variety of sources that is replicable by other scholars. Moreover, by offering scholars a standardized way to derive ideas from text, it fosters comparison between actors, cases and time: the third requirement for conducting empirical research into the role of ideas. Fourth, CM also helps ideational scholars to distinguish between the effects of ideas and that of other factors like interests and institutions by enabling them to formulate clear and precise expectations about prospected policy effects of actors' ideas. This will offer valuable insights in the longstanding debate about what influences public policymaking and instigates policy change.

Naturally the method of cognitive mapping also has weaknesses and is not the right choice for every type of research. For although CM can provide

insight in the argumentation and narrative underlying a belief system, the method clearly departs from the position that 'measuring' ideas is possible. It may therefore not match the epistemological position of all scholars in the domain.¹² Moreover, like every other manual text-analysis method, the coding process for CM is labour-intensive. Automatic text analysis is faster and more reliable. However, while analyses using such techniques are useful in their own right, they offer less nuance than the CM technique: even the most advanced automatic text-analysis tools cannot yet derive causal and normative ideas and their underlying argumentation from texts. Finally, and pertaining to the fifth requirement, CM in itself cannot establish the causal effect of ideas. Cognitive mapping is able to take snapshots of ideas of various actors through time and may thus answer questions about what beliefs they hold and how these change. However, it needs to be combined with a technique like process tracing in order to help scholars understand how and why ideas influence policy.

However, as the introduction to the technique and results of the plausibility probe indicate, CM constitutes a valuable addition to the methodological toolbox of ideational policy scholars and may facilitate empirical research into many key questions in the domain. Moreover, as CM facilitates the structured, longitudinal comparative analysis of actors' ideas and their policy effects in different domains, it may also help uncovering general ideational patterns and foster knowledge accumulation across cases and policy domains.

Notes

1. In some domains scholars use the term ideas, others use the term beliefs. This article uses both terms interchangeably.
2. The review uses the literature lists of two recent reviews on ideational scholarship in policy sciences as its source (Béland, 2019; Swinkels, 2020). All publications that include the term idea, belief or paradigm in the title were included. Chapters in edited books were only included if they were listed separately (see Appendix 1).
3. By mathematical definition, paths with an odd number of negative links have an overall negative effect and paths with an even number of negative links have a positive effect (Axelrod, 1976).
4. In these examples, the scores are given based on the excerpt in Figure 1. In the complete map, the saliency of the concepts may be higher (see Appendix 2).
5. See (Young, 1996) for ways to study the complexity of ideas with CM.
6. CM has also been used to uncover the ideas of organizations and collective actors (Bougon *et al.*, 1977; Princen & Van Esch, 2016).
7. To make the scores comparable they are listed as a percentage of the aggregate saliency of all concepts in the map.
8. We assigned a value of 0.9 to the reduction factor. This is a somewhat arbitrary choice as a value of 0.8 or 0.7 also results in a realistic decline of the causal power with every increase in distance between cause and effect. A factor

below 0.6 reduces the effect for causes at more than a distance of 4 to zero. Future research should indicate what value results in the most adequate expectations. CM software MAPS automatically calculates the AP of concepts.

9. For this analysis both the antecedent paths leading to the concept 'eurozone crisis' and 'solving the crisis' are included (see the excerpts in Appendix 2). In Table 2, instruments with negative CP with regard to the Eurozone crisis are supported as they reduce the crisis, those with positive scores are opposed.
10. The full CM shows that Rutte evaluates structural reforms as positive but not as a measure specifically useful in solving the crisis.
11. In Dutch politics and the public debate, the fiscal support measures are often framed as gifts rather than loans.
12. But see (Bonham *et al.*, 1987; Shapiro *et al.*, 1988) for a more discursive use of the technique.

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