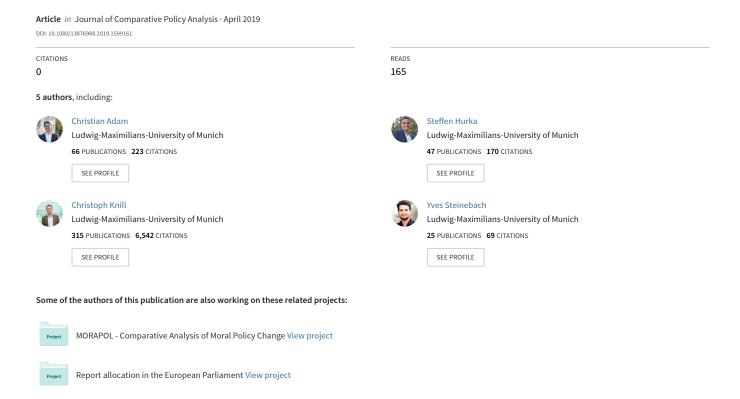
Introducing Vertical Policy Coordination to Comparative Policy Analysis: The Missing Link between Policy Production and Implementation



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ABSTRACT

The lack of effective vertical policy coordination between the policy makers at the "top" and the implementers at the "bottom" is an important source of deficits in both policy design and policy implementation. Yet while the link between policy production and implementation seems vital to explain and prevent policy failure, so far the conceptual tools to assess and compare systematically the barriers to effective vertical coordination are lacking. This paper attempts to address this gap by adopting a "transaction cost perspective" and proposing a novel concept to assess and compare the difficulty of vertical policy coordination between different policy sectors and countries.

KEYWORDS comparative; vertical policy coordination; policy design; policy implementation; transaction costs; gun law; childcare policy

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1. Introduction

Public policies are created in the attempt to achieve specific goals, such as improving the environment, modernizing local infrastructure, lowering unemployment rates, and enhancing public health. Policy making is based on the assumption that appropriate policy outputs can lead to these outcomes. Yet this assumption is hardly trivial. Two factors are particularly important in disconnecting policy outputs from aspired policy outcomes. First, policy design is often flawed as the cause–effect theory underlying this design is wrong (Ruijer 2012-). Second, even perfect policy designs can be implemented badly as policies require the establishment of appropriate administrative structures, capacities, and resources. Any mismatch between existing arrangements and required structural features emerging from new policies will make implementation deficits and according policy failure more likely (Knill and Lenschow 1998).

The lack of effective vertical policy coordination between the policy makers at the "top" and the implementers at the "bottom" is an important source of deficits in policy design and policy implementation. We understand effective vertical coordination as interactions between policy implementers and policy makers that result in policy decisions. Vertical coordination helps to improve policy design insofar as it improves policy makers' information about effects of existing policies on the ground (Lindquist 2006). Furthermore, vertical coordination improves the fit between necessary and available administrative arrangements for putting policies effectively into practice (Adam et al. 2017, 2019). Therefore, policy making without effective vertical coordination is more prone to deliver ineffective and impractical policy decisions.

And yet vertical coordination is a highly challenging endeavour. It requires institutionalized patterns of communication and coordination across different institutional levels of government with actors who enjoy a high degree of autonomy in their day-to-day decision making. In this sense, governance is often not an act of delegation but rather resembles orchestration (Abbott et al. 2015). Consequently, coordination has to take place within non-hierarchical settings, in which centralized control is very limited. Yet even in less autonomous settings that more closely resemble principal—agent relationships, agents tend to enjoy far-reaching discretion (Lipsky 1980).

While vertical policy coordination seems vital to explain and prevent policy failure, we so far lack the conceptual tools to assess and compare the barriers to effective vertical coordination systematically. This paper attempts to address this gap by adopting a "transaction cost perspective", and proposing a novel concept to assess and compare the difficulty of vertical policy coordination between policy sectors and countries. We present two empirical examples from German politics to illustrate this concept.

With this focus, the paper contributes to the literature on policy coordination, which primarily concentrates on horizontal coordination so far. We show that this research needs to be complemented by conceptual and theoretical work on vertical coordination. Furthermore, the paper contributes to the literature

on multi-level governance (MLG). This literature has shown that processes of decentralization have made coordination problems more common and urgent in modern democracies. In this context, it has produced nominal categories of different modes of coordination across different institutional levels, including hierarchy, competition, bargaining, as well as communication and information exchange (Benz 2016). So far, however, the MLG literature has failed to develop ordinal concepts that capture the difficulty of coordination in different policy settings in a systematic and comparable way. Despite far-reaching advances in the measurement of different degrees of autonomy in MLG settings (Hooghe et al. 2016), the problem of vertical coordination has not been addressed systematically. The same is true for the literature on policy implementation, which has identified the importance of vertical coordination for implementation success and failure (Pressman and Wildavsky 1973; Mayntz 1980), but primarily focused on discussing the pros and cons of different types of policy instruments and levels of administrative discretion for street-level bureaucrats (Linder and Guy 1989; Winter 2002). Moreover, the concept of "clearance points" as developed and promoted by Pressman and Wildavsky (1973) is an inadequate approximation to (the barriers to) vertical policy coordination as it takes policy outputs as the starting point for analysis and thus only considers the process that *follows* the adoption of policies, i.e. when policies are about to be implemented. With our concept, we hope to stimulate new comparative research efforts within these different strands of research.

2. Vertical Coordination and Transaction Costs

The existing political science and public administration literature has surprisingly little to say about vertical coordination and its determinants. The literature on industrial organization, by contrast, has dealt with this issue very extensively. Following the work of Williamson (1973, 1981), the main focus has been put on identifying different forms of vertical coordination in market chains and to assess how transaction costs shape and determine the underlying governance structures (Frank and Henderson 1992; David and Han 2004). The key insight of this strand of literature is that transaction costs are the primary reason for firms to vertically integrate and to opt for coordination through non-market arrangements.

Transaction costs are defined as the costs of "running the economic system" (Arrow 1969: 48) and are often considered the economic equivalent to "frictions" (Williamson 1973) in mechanics. Transaction costs thus represent a catch-all category for any costs that are necessary to make market exchanges run as easily and smoothly as possible. These costs mainly arise for two reasons: first, firms have to hedge themselves against the "active tendency of human agent[s] to take advantage, in any circumstances, of all available means to further [their] own privileges" (Crozier 2010, p 194). Second, even firms that have complete confidence in each other still must invest time and effort in coordinating and synchronizing their actions across institutional boundaries (Gulati and Singh 1998). By and large, the total amount of

transaction costs thus emerges as a combination of different factors such as (1) the exact nature of the transaction, (2) the characteristics of those involved in the transaction and their relationship to each other, as well as (3) the underlying institutional arrangement and the extent to which it facilitates the exchanges among the actors involved.

Yet transaction costs are not only relevant to understand processes of vertical coordination between different business entities. They can be equally helpful in analysing political patterns of vertical coordination during policy making. Political-administrative structures do *not* naturally tend towards the most efficient institutional design (North 1991). Instead, political and administrative actors often find themselves confronted with quite substantial transaction costs to vertical coordination (Dixit 1998). While the political science literature has often used transaction costs to explain the delegation of decision-making authority – from legislative bodies to the bureaucracy (Horn 1995; Epstein and O'Halloran 1999) and from the state to other levels of government (Feick 2013) – we use this concept to assess why decisions tend to be taken at individual levels of government without coordinating with actors from other levels of government.

3. Conceptualizing Barriers to Vertical Policy Coordination

In any political system, policy decisions are typically made at the "top", while the quality of these decisions mainly depends upon the information generated at the "bottom". Thus, when drafting or deciding upon a policy, policy makers are in need of being informed of how policy implementers think about the issue at hand and whether or not the envisaged policies can be effectively applied with the available resources and through the existing administrative arrangements. In this context, vertical policy coordination describes the entirety of activities that link policy makers with the implementers. But which factors determine whether these activities take place and are successful?

Following the previous discussion on transaction costs, we expect the occurrence of vertical policy coordination to mainly depend on (1) the policy-specific demand for coordination and on the existence or absence of (2) political and (3) institutional barriers to vertical policy coordination. More precisely, we argue that the more complex a policy is and the "costlier" central policy makers find it to reach out and exchange with other administrative and political actors, the less likely that vertical policy coordination takes place and ultimately is successful.

Vertical policy coordination is not only relevant from a top-down but also from a bottom-up perspective as it determines both the ultimate degree of goal achievement and the contextual conditions under which policy implementers operate (deLeon and deLeon 2002). Obviously, the link between policy outputs and outcomes is not exclusively determined by consideration at the stage of policy formulation but also by the process of policy implementation. Here, transaction costs mainly arise due to the time and

resources that must be invested in training the implementation agents and in monitoring the target group. Figure 1 summarizes our theoretical considerations.

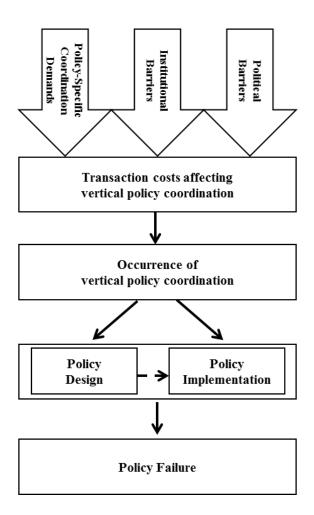
3.1 Policy-Specific Demands for Coordination

Williamson identifies three determinants of transaction costs that are specific to the type of transaction performed: the frequency of the transaction, its specificity, and the level of uncertainty involved (Williamson 1981). We transfer this insight to the political process, where transaction costs of political decisions also vary with the respective kind of policy adopted. We consider each of Williamson's three categories in turn.

3.1.1. Frequency. Falconer et al. (2001) have pointed out that transaction costs vary over the life cycle of a policy programme. They may decrease over time due to learning processes and the presence of fixed or sunk costs, which usually amass at the beginning of a policy programme. If policy makers engage in an area for the first time, they usually have no prior information about the scope of the policy field, the policy problems at hand, the range of instrument options, and the appropriate implementation structures. Later policy revisions, by contrast, are far less cost-intensive. Policy makers can enhance their knowledge through learning-by-doing over time (May 1992) and they become increasingly able to single out the most relevant information to guarantee adequate policy decisions. Also, the policy is already to some extent legitimated and will have organizational and client support.

While the presented relationship between the frequency of policy decisions and the demand for coordination seems straightforward, the strong governmental engagement in a policy area may also result in densely populated and congested "policy spaces" in which numerous policies and their effects interact (Majone 1989; Adam et al. 2018). This, in turn, increases the demand for vertical coordination, as central policy makers need to know how the different policy instruments in place interact (Del Río 2014). Also, information exchange might become more difficult across time as organizations become increasingly entrenched to protect the privileges they receive through existing policy schemes and programs. Given these aspects, we consider the frequency of policy decisions and the demand for coordination to be intricately linked. The policy-specific demand for coordination is *high* when policy makers engage in a given issue area for the very first time. It is *low* when governments have already engaged in an issue area but only a few different policy instruments have been adopted. The demand for coordination is *medium* if policy makers have some experience in regulating a given policy issue but need to consider the interactions between various policy instruments when making their decisions.

Figure 1. Barriers to, and consequences of, vertical policy coordination



3.1.2. Specificity. Secondly, transaction costs vary with the specificity of policy decisions and respective target groups. For specific or homogenous groups of policy targets, it is comparably easy to acquire relevant information about target group behaviour and less coordination with front-line actors and implementers is needed to acquire that information. In contrast, heterogeneous target groups make it more difficult to establish a "one size fits all approach" and tend to require more complex policy designs. Therefore, policy makers tend to require and process more information and consult with more diverse actors in order to acquire this information. Policy implementers on the ground know policy target groups in their area first-hand. To obtain the full picture of target group heterogeneity, it is necessary to coordinate with a diverse group of policy implementers. Target group heterogeneity may come in different forms, such as cultural diversity, religious diversity, different languages, strong socio-economic differences, or educational differences. Adopting appropriate policies for such diverse groups requires more intensive vertical coordination with people on the ground who know about these differences.

3.1.3. Uncertainty. A third factor that determines the demand for coordination – and hence transaction costs – is the level of uncertainty involved in policy decisions (Van Dooren and Van de Walle 2008). Uncertainty about the extent and form of specific problems and about the effectiveness of specific policy designs can be reduced with the help of data. Where such data is easily accessible, the need for vertical coordination is limited. Where, by contrast, little or no data is available, relying on the experience of the policy implementers becomes an increasingly necessary prerequisite to ensuring an effective policy design (Kroll 2013). However, data quickly becomes outdated. Accordingly, data collection and analytical methods must be harmonized and merged across territorial borders. The policy-specific demand for coordination is thus high when there is no available data at all. It is medium when some data exists but the data is collected at the local level and no systematic reporting to the central level takes place. We consider the demand for coordination to be low when the data is collected by a central institution or when the data generated at the subnational level is merged systematically. Table 1 summarizes the policy-specific demands for coordination.

3.1.4. Exemplifying Policy-Specific Demands for Coordination. To demonstrate the applicability of our concept and to illustrate the analytical arguments made, we refer to two examples from the German context. By selecting two examples from the same country, we aim to demonstrate that not only country- but also policy-specific features do affect the barriers to vertical policy coordination.

Our first example is the law on the provision of childcare adopted in 2008 by the so-called "grand coalition" between the Christian Democratic Union (CDU), Christian Social Union (CSU), and the Social Democratic Party (SPD). The policy granted parents the right to obtain a place at a local nursery school for their children under the age of three beginning in 2013 (*Kinderförderungsgesetz*). Our second example is the new regulation on the safe storage requirements for firearms (§ 36 Waffengesetz) adopted in 2009 by the German federal government in response to a mass shooting at a public school in the town of Winnenden.

In both examples, demanding burdens have been imposed on implementing authorities. Yet the two examples differ in the ways the additional implementation duties have been compensated by an increased allocation of resources to local implementers. In the concluding section of the article, we briefly reflect on whether these differences can be traced back to the extent of vertical coordination or, more precisely, to the factors standing in the way of vertical policy coordination.

Table 1: Policy-specific demands for vertical policy coordination

Absolute transaction costs involved in policy-making decrease over time due to the learning processes. They increase again when the 'gains' through experience are exceeded by the costs caused by congested policy spaces.
Governments engage in an issue area for the very first time.
Governments have some experience in regulating a given policy issue but need to consider the interactions between various policy instruments when making their decisions.
Governments have already engaged in an issue area but only few different policy instruments exist.
A more diverse target group requires more information if all of its diversity is to be effectively incorporated in the policy design.
The target group is highly heterogeneous.
The target group is somewhat heterogeneous.
The target group is highly homogeneous.
The uncertainty involved in policy-making can be reduced if policy-makers can easily access and consult data on the issue at hand.
There is no available data.
There is some data but the data is collected at the local level and no systematic reporting to the central level takes place
The data is collected by a central institution or when local data is merged in a both systematic and consistent manner
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In both two exemplary cases, the issues generated a policy-specific demand for vertical coordination of *medium* degree in terms of the *frequency* with which policy makers had engaged with the issue before. In the context of gun policy, national legislation was already introduced in 1972. The 2009 reform was thus not a complete policy innovation. And yet gun law revision is not a very frequent exercise for German politicians either. In fact, prior to the respective reform, the national gun law was only revised once in 2002 after a school shooting in Erfurt. Childcare policy, in turn, enjoyed an elevated level of national attention in the 1990s. The "law on child and youth protection" (*Kinder- und Jugendhilfegesetz*) was substantially revised in 1990, a right to obtain placement in a day-care facility for children over the age of three was introduced in 1993, and the law on child and youth protection was amended in 1995. After that point in time, the "day-care law" (*Tagesbetreuungsgesetz*) adopted in 2004 represented the next major innovation in that area. In this light, the 2008 reform did not represent a complete policy innovation.

Legislators at the national level thus had acquired knowledge and expertise in this area through previous reforms. Yet at the same time, childcare reform is not some- thing that legislators deal with on a regular basis.

When it comes to the *specificity* of the policy decisions, our two exemplary cases differ somewhat regarding the heterogeneity of their respective target groups. A *high* level of heterogeneity is quite obvious for the childcare case where the population of policy targets includes both families and single-parent households from all cultural, regional, and religious backgrounds. In addition, East and West Germany have quite different policy legacies when it comes to childcare (Mätzke 2018). While there are much fewer gun owners than young families, this does not mean that the population of gun owners is substantially less diverse. This heterogeneity manifests itself in a rather large number of different gun lobby organizations, which do not always act as a homogeneous block and compete with each other on several issues. Nevertheless, hunters and sports shooters do make up the largest and most visible part of that population so that it seems fair to classify the heterogeneity of this target group as *medium* and thus as somewhat lower than the heterogeneity of the target group for childcare.

In terms of data availability and remaining *uncertainty*, the demand for vertical policy coordination is quite high in the area of gun control. For a long time, the number of privately owned firearms in Germany could only be estimated and these estimates, including illegally held firearms, varied within a rather large corridor from 20 to 30 million firearms (Karp 2007). This uncertainty was due to the fact that data on civilian gun ownership used to be collected by roughly 550 local authorities in Germany and the data was not reported to the national level. Only in 2013 and under the influence of the European Union did the national government introduce a national firearms register and information on (legal) gun ownership in Germany is now available. Thus, when the school shooting in Winnenden happened and the policy reform was about to be made in 2009, the national government could only rely on very imprecise estimates on the number of gun owners to which new safe storage requirements would eventually pertain. Regarding childcare provision, policy makers can rely on well-developed statistics on birth rates and on data from applications for child-specific social benefits. They know how many children are born and, more importantly, where they live. Yet uncertainty remains at a medium level as it is quite challenging to predict the demand for day- care placements as this involves estimation of the share of children for which parents will demand placement in different regions. This created, again, a medium-level demand for vertical coordination.

3.2 Institutional Barriers to Vertical Policy Coordination

At the institutional level, we distinguish three different barriers that increase the transaction costs associated with vertical policy coordination. First, a lack of appropriate institutional venues that help policy makers to

reach out to and consult with other political and administrative actors complicates vertical policy coordination. Second, transaction costs will increase if a given policy is under the parallel sovereignty of different levels of government. Finally, the complexity of governmental structures, i.e. the variety of implementing bodies that is involved in the implementation process, also determines the transaction costs involved vertical policy coordination.

3.2.1 Lack of Coordination Venues. Intergovernmental politics in some political systems are organized with a set of institutions that encourage greater cooperation and exchange among the levels of government, or at a minimum provide a forum for airing differences. In Canada, for example, there is an annual meeting of the Premier Ministers of the provinces with the Prime Minister to address concerns about policy affecting all levels. Similar coordination mechanisms exist in the German context with the Federation States conferences of the relevant ministers for a given policy area. These non-constitutional venues for coordination may be contrasted to the rather haphazard forms of policy coordination among levels in the United States. There is no clear locus for such coordination, and the style of bargaining is more one of lobbying than partnerships among the levels of government around common policy goals.

Thus, policies vary in the extent to which such institutional venues for vertical policy coordination exist. If exchanges between policy implementers and policy makers are institutionalized, this clearly lowers the transaction costs involved in vertical policy coordination. However, these venues are only beneficial if they do not only include the de jure but also the de facto implementers, i.e. the street-level bureaucrats, in the decision-making process. In some instances, those that are responsible for implementation on paper delegate implementation to other levels of government, thereby shirking responsibility for implementation deficits. If only those de jure implementers are at the decision-making table, effective vertical policy coordination becomes more difficult.

3.2.2 Parallel Sovereignty. Also, the parallel sovereignty over a policy issue substantially increases the transaction costs involved in vertical policy coordination. In the US, for instance, both the federal and the state level have the authority to regulate the consumption and trade of cannabis. While US federal law is rather prohibitive when it comes to the consumption and the possession of cannabis, a number of states have adopted more permissive policies and legalized the use of cannabis, hence deviating from the policy approach at the federal level (Pacula et al. 2014).

Thus, whenever a given policy issue is under the competing jurisdiction of different policy makers, central policy makers do not only have to coordinate with the responsible implementing bodies but also with the representatives of other policy-making entities. If spheres of sovereignty are clearly separated, however, policy makers only have to engage with the implementers in their respective area and the

transaction costs are substantially lower. While beneficial from the perspective of vertical coordination, this division of governments into "silos" may increase the transaction costs involved in horizontal coordination, requiring governments to make structural choices about which form of coordination to favour.

3.2.3 Complexity of Governmental Structures. The complexity of government structures is another important institutional dimension affecting the transaction costs involved in coordination. This dimension is especially relevant for local governments that proliferate into a variety of forms with varying competencies and resources. The most obvious example of this is the creation of numerous special purpose authorities at the local level. While these have the virtue of being serialized and thus providing a clear institutional link with specialized ministries at a higher level of government, the number of these organizations in some areas and their varying relationships with general purpose governments may make coordination difficult. The structural issue of complexity may be related to the presence of structural mismatches between levels of government. While institutional theory might argue that there will be strong pressures toward isomorphism among these structures (DiMaggio and Powell 1983), there can also be significant diversity. For example, small local governments may include a variety of services into one organization that must in turn deal with rules coming from a number of state and federal organizations. Thus, the most challenging situation for vertical policy coordination exists when- ever policy makers must coordinate with multiple implementing agents of equal or similar relevance. If policy makers only need to coordinate with one single implementer, vertical policy coordination is facilitated.

Table 2 summarizes our considerations regarding the institutional barriers. In sum, these institutionally defined barriers to vertical coordination are inherently related to elements of the regional authority index (Hooghe et al. 2008, p. 29), which captures aspects like "the extent to which a regional government co-determines national policy in intergovernmental meetings" or "the range of policies for which a regional government is responsible". Yet our approach is distinct from this concept by adopting a policy- instead of a country-specific focus. To understand the dynamics of underlying implementation problems, we do not need to assess whether intergovernmental meetings do generally take place, but whether these meetings are relevant in the specific policy context.

Table 2: Institutional barriers for vertical policy coordination

1. Lack of coordination venues	When implementers and policymakers cannot make use of other non- constitutionalized institutions to coordinate between them, coordination will become more difficult to conduct.
High	The policy decision does not entail the involvement of such institutions.
Medium	There are permanent institutions which are, however, not used regularly and/or do not include all relevant actors.
Low	There are permanent institutions for vertical coordination which include all relevant actors.
2. Parallel sovereignty	When implementers have to coordinate with not just one policymaking entity but with several rule-making bodies, then coordinating with them becomes more difficult.
High	Implementers have to coordinate with several equally relevant policymaking entities.
Medium	Implementers can coordinate with one main policymaking entity, but can additionally coordinate with other entities of marginal policymaking relevance.
Low	Implementers have to coordinate with just one policymaking entity.
3. Complexity of governmental structures	When there are multiple different implementers, then coordinating with them becomes more difficult.
High	Policymakers have to coordinate with several equally important implementing agents.
Medium	Policymakers can coordinate with one major, but can additionally coordinate with other implementing entities of marginal relevance.
Low	Policymakers can coordinate with one implementing agent.

3.2.4 Exemplifying Institutional Barriers to Vertical Policy Coordination. In Germany, nursery schools are typically built and operated by the municipalities, or by third sector organizations such as the Catholic or Protestant Churches. The Länder governments are represented in the Bundesrat as the second chamber but are not directly involved in the provision of childcare facilities. There is thus no constitutional provision that facilitated the coordination between the federal level and the local implementing agents when the policy was about to be formulated. The same is true for the case of safe storage requirements for firearms. Gun control has been under the exclusive jurisdiction of the national level in Germany since the federalism reform of 2006, while the Länder are responsible for implementation. However, since reforms of the gun law require the consent of both legislative chambers, the Länder governments can influence the policy output via the Bundesrat. Yet, again, the German Länder are only formally responsible for implementation as, in reality, the implementation burden regarding the new unannounced safe storage checks are passed on

to the public order offices at the municipal level. For both childcare and gun control policy, vertical coordination thus could not take place within pre-existing institutional venues and, accordingly, venues outside of constitutional structures had to be found and created on an ad hoc basis. This implies that – for the indicator under review – the barriers for vertical coordination were *high* in both of our exemplary cases. Given that the regulation of firearms belongs to the exclusive decision-making competences of the federal level, parallel sovereignty did not create a barrier to vertical coordination in this case. When it comes to childcare policies, *Länder* governments do possess decision-making competences but only until the federal level steps in. If this is the case, federal legislation overrides or circumscribes state law. Accordingly, parallel sovereignty is not an issue in either case.

Since the German municipalities were the actual implementers in both of our exemplary cases, the number of independent implementing authorities was huge. Coordinating with all of these implementers would be an enormous task for policy makers, much more so than coordinating with just 16 *Länder* governments, for example, in areas where the *Länder* implement public policy. While coordination is facilitated by the existence of municipal associations (*kommunale Spitzenverbände*), which effectively bundle the interests of municipalities, it seems fair to say that the complexity of governmental implementation structures was relatively *high* and did create an effective barrier to vertical coordination.

3.3 Political Barriers to Vertical Policy Coordination

Although vertical policy coordination might seem like a technical or strictly administrative activity, it is also inherently political. First and foremost, the policy priorities developed by actors in the central government may not be those of the relevant actors at the sub-national level. As a result, central policy makers must generally deal with the possibility of facing opportunistic behaviour by local administrative and political actors. This lack of mutual trust increases the transaction costs involved in vertical policy coordination. In particular, we identify three factors that contribute to the political barrier for vertical policy coordination. These are party competition, regionalist parties, as well as the political pressure to act.

3.3.1 Party Competition. A major political barrier for vertical policy coordination results from party competition and thus the divergence of policy priorities at different levels of government. This problem is especially relevant if autonomous elections of legislatures and political executives can easily produce partisan differences at different levels of government (Riker 1964; Garman et al. 2001).

Thus, the transaction costs involved in policy coordination are higher if policy makers have to consult and exchange views with implementers of a different political colour. Central policy makers always have to fear that the information they receive might be wrong or biased in favour of the political interests of their opponents. We thus argue that party competition represents a political barrier for vertical policy

coordination if parties from the opposition at the policy-making level are responsible for policy implementation at the lower level. The political barrier is less pronounced if both are from different parties, but are coalition partners at the policy-making level. If the parties that make the policies are the same that implement them, this particular barrier to vertical policy coordination is not present.

3.3.2 Regionalist Parties. Besides the ideological divergences leading to party competition discussed above, regional interests can also contribute to a higher political barrier for vertical policy coordination. This is particularly the case whenever the parties in control at the implementing level are regionalist parties that are attempting to implement policy programmes stressing their distinctiveness from the centre. Even when the parties at the subnational level are not overtly seeking independence, their scepticism about policies coming from the centre may make multilevel governance difficult. Thus, if regionalist parties are electorally relevant at the policy-implementing level and have policy priorities that diverge from those of the policy makers, this renders effective vertical policy coordination more challenging. If regionalist parties are present, but not particularly powerful, their ability to obstruct effective vertical coordination is less pronounced. If regionalist parties are absent, vertical policy coordination should be unhampered by the divergence of interests at the regional and the national level.

3.3.3 Political Pressure to Act. Finally, the political pressure to act forms another key obstacle to vertical coordination. While the ticking clock does not increase the transaction costs per se, it provides strong incentives for central policy makers to avoid unnecessary transaction costs and thus to simply not connect with other political and administrative actors. A further political barrier for vertical policy coordination thus results from political pressure to act generated by exogenous shocks or temporal constraints imposed by the electoral calendar. If the policy window for reform opens after exogenous shocks, questions of effective implementation are often regarded as of second order. The need to demonstrate responsiveness to a societal problem might trump the need to ensure proper implementation. Table 3 summarizes the three political barriers to vertical policy coordination.

Table 3. Political barriers to vertical policy coordination

1. Party competition	Different policy preferences and policy priorities are a likely barrier for effective coordination between policymakers and implementers when both belong to different political parties.
High	Full party competition (both from different parties, clash between opposition and government)
Medium	Partial overlap (both not from the same party, but in joint coalition)
Low	Identical parties (both policy makers and implementers are from the same party)
2. Regionalist parties	On certain policy issues, preferences may vary strongly based on regional particularities. If these particularities are taken up by a regionalist party that aims to affirm this "specialness" vis-à-vis national-level parties, effective vertical coordination becomes more difficult.
High	Regionalist parties are (electorally) strong and have policy priorities that diverge from those of national-level parties.
Medium	Regionalist parties exist, but their relevance is limited by their relative (electoral) weakness.
Low	Regionalist parties do not exist at all.
3. Political pressure to act	Upcoming elections or focusing events that capture public attention can create strong public pressure on policymakers to act.
High	Great time pressure
Medium	Medium level of time pressure
Low	Low level of time pressure

3.3.4 Exemplifying Political Barriers to Vertical Policy Coordination. Party competition hardly represented a barrier for coordination for the reform of childcare provision. This is because in 2008 the grand coalition between CDU/CSU and SPD held the majority not only in the Bundestag, but also in the Bundesrat, Germany's second chamber representing the Länder governments. Moreover, the government had merely taken up efforts already undertaken by its predecessor government consisting of the SPD and the Greens. Their bill from 2004 had not been as ambitious, but pursued the same goal of extending the availability of nursery school places. Given this broad agreement across parties, party competition hardly stood in the way of vertical coordination. For gun control, by contrast, the picture is somewhat different as the grand coalition

had lost its majority in the second chamber in February 2009. And yet all *Länder* governments continued to consist of at least one of the two large parties: only one out of 16 Interior Ministers at the *Länder* level was not a member of one of the two parties in government at the national level in 2009. Accordingly, it seems reasonable to classify the party competition as medium in the respective case.

And yet party politics did create some transaction costs in the context of the childcare reform. This is because of the ideological differences between the major national parties CDU, SPD, and the Greens on the one side and the regionalist party CSU, which only exists in Bavaria but was part of the federal government coalition, on the other side. Promoting conservative family values, the CSU would not unconditionally support a policy that redistributed public funds towards families that took their children to day- care facilities instead of taking care of them at home. Ultimately, the CSU's support could be obtained by including a provision that foresaw the adoption of an additional law by 2013 that would provide families who did not use day-care facilities with a monthly lump-sum payment. While even the CDU as the natural ally of the CSU rejected this provision, it helped to ensure the support of the CSU and maintained the peace within the government coalition. For gun control, the available evidence suggests that the involvement of the CSU did not hamper vertical coordination at all. While the CSU in Bavaria later opted to issue relatively lax implementation ordinances for its gun authorities – declaring announced checks as the rule instead of unannounced checks – it did not obstruct coordination at the decision-making stage.

Finally, while the growing demand from large parts of the population created some political pressure to act, there was no focusing event that added extra time pressure in the case of childcare provision. By contrast, the political pressure was a much more significant barrier to vertical coordination in the debate on new safe storage requirements for firearms. First, the rampage shooting in Winnenden served as a focusing event, leading to a massive increase in media and public attention towards gun policy, thereby generating pressure on policy makers to demonstrate their commitment to keeping the population safe. Second, parliamentary elections were scheduled for September, which put additional pressure on the responsible political actors to demonstrate their capacity to act. Since none of the involved decision makers was keen on letting the debate on gun control interfere with their electoral campaigns, it was essential for the government to push the reform through the institutions in only three months, before summer recess and the start of electoral campaigns. In response to this hurried process, the Free Democratic Party called the new measures "rash" and "premature" (Deutscher Bundestag 2009b).

3.4 Other Barriers to Vertical Coordination?

We have chosen to focus on institutional and political barriers to vertical policy coordination. We could, however, add a number of additional sources of difficulty in achieving coordination. For example, there may be very different conceptualizations of policy at different levels of government, or the knowledge base

from which actors are working may vary both in type and in depth. Subnational governments, for example, may have very detailed knowledge about local conditions but have much less knowledge about the "big picture" that motivates policy making at the national level.

Although those other barriers may be significant, we have chosen to focus on institutions and politics. First, some of the other potential sources of difficulty in vertical coordination may be subsumed by these two. Different conceptualizations of policy, for example, may be represented by different political parties. Second, our examination of our exemplary cases and many others, as well as the available literature, leads us to believe that institutions and politics represent the principal barriers to effective vertical coordination. Obviously, this could be subjected to an empirical test – given a sufficient number of cases – but that is clearly beyond the scope of this paper.

3.5 Discussion

In this paper, we have sought to conceptualise barriers to vertical policy coordination. As outlined above, we argue that there are policy-specific coordination demands (frequency, specificity, uncertainty), institutional barriers (lack of coordination venues, parallel sovereignty, complexity of governmental structures), and political barriers (party com- petition, regionalist parties, political pressure to act) that determine whether vertical policy coordination takes place and ultimately is successful. We discussed each of these factors with reference to two German cases. But what might these exemplary cases tell us about the necessity of our concept as well as about its explanatory potential? When comparing our two cases, it seems that the most pronounced differences can be found with regard to the political barriers. More precisely, it appears that in our exemplary case of the 2009 gun control reform, the political pressure to act very quickly constituted a major barrier to vertical coordination. Inviting front-line implementers to the decision-making process would have endangered a timely decision – particularly since it was clear that the implementers would tie their consent to the demand for appropriate compensation for additional implementation burdens. A key insight gained is thus that there are indeed differences from one policy to the other. This makes clear that a more policy-specific approach is necessary to fully grasp the multiple factors that may stand in the way of successful vertical coordination. So far, the MLG literature has largely failed to develop concepts that capture the difficulty of coordination in different policy settings in a both systematic and comparable way due to its predominant focus on country- or sectoral-specific features.

Another question is, however, whether the differences identified – especially with regard to the political barriers – might also help to explain varying degrees of implementation deficits across the two exemplary cases. All in all, it seems reasonable to argue that the provision of childcare adopted in 2008 has been quite a success (BMFSFJ 2015). Although the German Constitution restricts the provision of federal funds to municipalities, by the end of 2014 the federal government had already transferred about €5.4 billion

for the construction and operation of day-care centres to the *Länder* and the municipalities. While there remains a substantial gap between demand and supply for nursery school placements due to an increase in demand and some regional differences, it would be wrong to speak of failed implementation. There has not only been a substantial increase in the number of children within these facilities, but also the anticipated large number of lawsuits launched by angry parents did not materialize. Furthermore, the quality of childcare facilities has not deteriorated with the increase in places. Both federal and state governments have regularly attributed these achievements to the successful coordination between the federal, state, and municipal level on this issue (Deutscher Bundestag 2008).

In our second exemplary case, by contrast, the implementation of the new safe storage requirements for firearms seems to be burdened with problems. Right from the beginning of the discussion, the opposition claimed that an effective implementation of this newly introduced measure would not be possible, as the responsible municipalities lacked the personnel to carry out the new checks (Deutscher Bundestag 2009a). While front-line implementers voiced their concerns right from the beginning, they could not effectively take part in the decision-making process. As discussed above, this was primarily the case as the policy makers had a strong incentive to get the policy reformed as fast as possible. Only a few years after the adoption of the new measures, it became clear that their concerns had been justified. While the implementation performance varied across the German *Länder*, it was highly deficient in almost all of them (Frankfurter Allgemeine Zeitung 2014). In some regions, not even 15 per cent of all gun owners could be checked on a regular basis (Frankfurter Allgemeine Zeitung 2014).

Although we are far from claiming causality on the basis of our illustrations, it seems that, at least for the two exemplary cases under scrutiny, the different degrees of implementation deficits do correspond to political and institutional barriers of varying height. In order to fully explore the empirical relevance of institutional and political barriers to vertical policy coordination, however, we need more data from other policy areas. It was thus our primary goal to demonstrate that such a more systematic and encompassing endeavour is possible and worth undertaking.

More generally, we also argue that although there are important barriers to vertical coordination, they are far from determinate or insurmountable. Multi-level governance systems manage to overcome them on a regular basis. The barriers can be overcome through institutional design, through bargaining, through political affinities, and at times through the use of authority. In the context of implementation in a multi-level government, Bowen (1982) identified a number of strategies for overcoming resistance, and similar strategic thinking could work for policy design. All that said, however, the very fact that political leaders have to devise strategies to make public policies work when faced with vertical coordination barriers speaks to the reality of those barriers.

4. Conclusion

While policy coordination has been identified as an important factor able to explain and prevent policy failure, most scholars in this field focus on the horizontal coordination of public policy. Vertical policy coordination between policy makers and implementers, in contrast, remains a blind spot despite the insights generated by the MLG and implementation literature highlighting the importance and difficulty to adopt and coordinate public policy across multiple levels of government. Yet we so far lack a concept to capture the barriers to vertical coordination in a comparable way across different policies and countries. This lacuna seems to stand in the way of comparative research efforts in this area and of a more nuanced and improved understanding of conditions under which different barriers to vertical coordination affect policy failure. This article should be seen as a first attempt to address this gap with a conceptual contribution.

We hope our concept can prove useful for researchers interested in comparative analyses of implementation processes by providing them with a tool to gauge the extent to which barriers to vertical policy coordination complicate the exchange of information between policy makers and implementers. And yet we are aware that further conceptual work is needed before more thorough theoretical analyses can take place. Most importantly, many will feel the urge to convert our conceptual framework of vertical coordination barriers into a quantitative index of vertical coordination barriers. The construction of such an index requires weighting and aggregation rules for the different factors we gathered. This is hardly trivial, as different barriers might be relevant in different contexts. We thus purposefully leave it to future studies to further explore the suitability of item response models, whose theoretical foundations appear more adequate in our context than those of additive index building. We hope that our conceptual groundwork can serve as a helpful basis for this line of work.

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