

Four Styles of Regulation and their Implications for Comparative Policy Analysis

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Abstract

Comparative research crucially depends on the availability of meaningful descriptive concepts capturing the essence of empirical phenomena. In policy analysis, the portfolio of classical concepts describing policy contents and procedures remains unmatched by a similar pool of concepts available for describing patterns of regulatory outputs. Starting from the premise that policy-makers not only create behavioral rules, but also define sanctions for rule violations, this article distinguishes four ideal-typical styles of regulation: authority, lenient authority, punitive permissiveness, and permissiveness. It uses handgun regulation to illustrate the merits of this distinction and discusses the theoretical implications of the approach.

Key words

policy styles, regulatory style, descriptive concept, handgun regulation

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1. Introduction

One of the major challenges for modern states is to answer the question of how to resolve the tension between citizens' individual freedoms and public intervention in order to reach political goals. How far should individual liberties be limited for the sake of the public good? How far should society be protected from governmental intervention? Yet surprisingly few attempts have been made to discuss more systematically how the actual balance of individual freedom, public intervention and potential changes in this balance can be assessed. The central research question addressed in this paper is hence how to describe and measure the way in which this balance has shifted in different countries.

It is well-recognized that the normative foundations of how to balance individual rights and collective intervention vary across countries. This variation becomes apparent in different state traditions that can be understood as deeply institutionalized norms specifying the relationship between state and society. These norms typically emerged during historical "watersheds" of state formation, implying that – depending on the underlying historical conditions and interest constellations – state traditions vary considerably across countries. The UK, for instance, has been classified as "stateless society", with the role of the government being restricted to mediating societal conflicts rather than directly intervening in society "from above". This latter approach, by contrast, has been identified as crucial feature of the French etatist tradition (Dyson 1980; Badie and Birnbaum 1983; Knill 2001).

However, state traditions are highly abstract concepts hardly sufficient to capture the variety and complexity of governmental decision-making over time and across a range of different policy sectors. To get a better, empirically grounded understanding of how different countries balance individual rights and collective intervention, it is necessary to focus on distinctive policy areas in which this basic conflict appears most clearly and even constitutes a defining characteristic, namely regulatory policies. Regulatory policies refer to policies that specify conditions and constraints for individual and collective behavior. In contrast with distributive or redistributive policies that extract and allocate resources between different societal actors, the basic objective of regulatory policies is to influence human conduct (Lowi 1972, 2011). Regulation can hence be conceived as a policy type in which the balance between governmental intervention and the preservation of individual liberties is, by definition, most clearly pronounced. The common feature of regulatory policies is that they define rules for human behavior and sanctioning regimes to enforce compliance with these rules. These arrangements, regardless of their concrete design and content, entail more or less far-reaching restrictions for individual behavior. In other words, a clear understanding of national patterns

of regulation tells us a lot about underlying conceptions of state–society relationships and their change over time.

The identification of stable country- or sector-specific policy patterns has been at the heart of the public policy literature, which analyzed the prevalence of different policy styles from the early 1980s onwards. These policy styles capture “standard operating procedures” of governments in making and implementing public policies (Richardson et al. 1982, p. 2). Put differently, policy styles relate to durable and systematic approaches to policy problems (Freeman 1985, p. 474, Feick and Jann 1988). In this regard, central emphasis was placed on procedural characteristics. The focus was on the question of whether politics in countries have some persistent characteristics that predispose them to formulate and implement public policies in certain distinct ways, irrespective of the issue concerned or the policy sector they belong to.

The study of national policy styles started with influential contributions authored and co-authored by Jeremy Richardson, who contrasted national policy styles by distinguishing active and reactive government approaches to problem-solving as well as by distinguishing a consensual from an impositional style of policy-making (Richardson et al. 1982). Along similar lines, van Waarden (1995) proposed that national policy styles can be characterized by distinguishing between high and low formalization of the relationship between public and private actors as well as between strong and weak participation of societal actors in policy-making. While the term policy style has been used as the most general and widespread term to identify such process patterns, some authors (in particular Vogel 1986; Vogel and Kagan 2004) refer to similar phenomena as styles of regulation. Since these approaches simply refer to “regulation” as one specific policy type, the findings of this strand of literature allow us to better describe and understand stable policy-making patterns. While styles of regulation hence concentrate on a specific policy type, the concept of administrative styles developed by Knill (1998, 2001) explicitly focuses on traditional behavioral patterns of a specific player in the political administrative system, namely the public administration (see also Zysman 1994; Howlett 2002, 2003).

Notwithstanding this long research tradition, it is striking that the specification of policy styles has always been based on the politics dimension: i.e. typical features characterizing the process of policy-making. By contrast, issues of policy content and policy design have been neglected. However, it is especially this latter category of regulatory outputs in which the boundaries between individual rights and collective intervention are most clearly visible.

It is the objective of this paper to address this research deficit. In so doing, we develop an innovative concept that enables us to identify and describe central characteristics of

regulatory policy outputs. Rather than focusing on the politics dimension, our concept allows for precisely assessing the boundaries between the protection of individual freedoms and collective intervention, as it becomes apparent in the output dimension. More precisely, we focus on two dimensions of regulatory outputs. On the one hand, we consider the extent to which individual freedoms are conditioned and constrained by regulatory rules. On the other hand, we analyze the extent to which deviations from these rules are actually sanctioned. Based on the combination of these two dimensions, we identify four ideal-typical styles of regulatory policy output. We argue that this concept offers an innovative tool for mapping and assessing regulatory change over time and to compare regulatory outputs across countries and sectors.

In the following, we first present four ideal-typical styles of regulatory policy output. Secondly, we propose a way to measure output in terms of these styles. Thirdly, we highlight the advantages of this approach for describing regulatory output in the context of handgun regulation. Finally, the paper discusses several implications of this approach for the explanation of regulatory change.

2. Four Styles of Regulatory Output

One of the central goals of democratic systems is to protect the individual freedoms of their citizens. At the same time, democratic systems regularly seem to feel the need to influence individual behavior to protect the freedoms, order, and welfare of society as a whole. The tension between individual freedoms and the collective good is particularly evident in the context of regulatory policies, which – according to Lowi’s classic typology (Lowi 1972, p. 300) – are policies that define behavioral constraints.

Yet, behavioral constraints can take different forms. They are closely related to the underlying governance principles through which governments seek to motivate such changes (Hood 1986; Hood and Margetts 2007; Holzinger and Knill 2008; Bauer and Knill 2014). Governments might restrict their intervention to merely offering information to policy addressees in order to stimulate behavioral change (e.g. campaigns against drug consumption). They might also offer positive or negative financial incentives to encourage such changes, such as taxes, fees or subsidies. If, for example, policy-makers want to keep citizens from driving overly pollutant cars, they have at least two options. Either policy-makers encourage citizens not to drive such cars, for example cars without a catalytic converter, by informing them about the damaging environmental effects. Alternatively, they may choose to adopt tax reductions for drivers of cars with catalytic converters. Both of these governance principles try to affect individual behavior only in an indirect way. They rely on cognitive or financial means to

encourage behavioral change. They do not prescribe behavioral change. The latter element – direct prescription – of behavioral change constitutes the most far-reaching intervention into individual liberties, as it relies on direct legal specification of constraints for individual behavior. In the example introduced above, the most severe form of such a direct constraint would be to prohibit cars without catalytic converters. Less severe measures in this context could be locational (e.g. prohibition in inner cities) or temporal (e.g. on Sundays). It is exactly this pattern – what Hood (1986) refers to as authority – that builds the starting point for our analysis. We argue that it is especially via these direct ways of governmental prescription through which the balance between individual rights and collective intervention can be assessed.

Yet, just as normative encouragements are typically flanked with financial incentives such as taxes or subsidies, behavioral boundaries are usually not only reinforced by attempts to persuade citizens of the importance of the boundary. Instead, legal boundaries are complemented by sanctions. Although some might consider both sanctions and incentives to be costs of certain behavior, sanctions and incentives differ in an important way. In the case of incentives flanking behavioral encouragements, citizens pay a financial price for engaging in certain behavior. For example, they pay taxes for smoking or for drinking alcohol. If they pay this financial price, they are free to smoke and drink. Sanctions, in contrast, are not mere costs whose payment legalizes an otherwise prohibited behavior. If, for instance, driving a car without a catalytic converter was sanctioned with a fine, paying this fine will not legalize the activity, to stick to the example from above. The prohibition of certain activities is thus the most drastic form in which policy-makers can interfere with individual behavior. By taking some behavioral options off the table, they effectively define the borders of individual freedom. These borders can be complemented with no, low, or rather severe sanctions. Depending on those degrees of severity, crossing behavioral boundaries can be inconsequential or highly consequential.

Therefore, just as the concept of coercion is at the heart of Lowi's definition of regulatory policy (Lowi 1972, p. 300), it informs our classification of regulatory output: policy makers do not only decide how strongly regulations interfere with individual liberties by setting legal boundaries, they also delineate how accepting societies are of noncompliant behavior by defining sanctions for rule violations. This distinction between the interference with individual liberties through the formulation of behavioral boundaries and the consequentiality of noncompliance forms the basis of our concept of regulatory policy output. Accordingly, we identify four ideal-typical styles of regulation (see Table 1).

Table 1. *Four styles of regulation*

		consequentiality of noncompliant	
		behavior	
		low	high
behavioral boundaries	narrow	<i>lenient authority</i>	<i>authority</i>
	wide	<i>permissiveness</i>	<i>punitive permissiveness</i>

If narrow boundaries (i.e. boundaries which greatly restrict individual freedom) are combined with severe sanctions, the corresponding style of regulation is authority. The opposite situation occurs if policy-makers grant citizens wide boundaries and even the disrespect of these boundaries is not subject to meaningful sanctions. In such a scenario, we speak of a permissive style of regulation. This dichotomy of ideal types, however, does not provide us with sufficient vocabulary to describe all empirically relevant types of regulatory output. In fact, two additional categories reflect styles of regulation that appear somewhat less consistent in the way they combine rules with sanctions. One such additional style of regulation is what we call “lenient authority”. Here, strict and far reaching prohibitions are combined with low or even nonexistent sanctions. For example, this style of lenient authority is clearly evident in the context of Portugal’s drug policy reform in 2000 (Chatwin 2011; Hughes and Stevens 2012; Adam and Raschzok 2014). Here, the existing authoritarian style of drug regulation was perceived to be utterly ineffective. Yet even the leftist government coalition did not want to lift the behavioral constraints from citizens by rendering the possession of drugs legal. Since the perceived need for reform coincided with a lack of political will to ease behavioral constraints, reform efforts were directed towards the consequentiality of rule violations – i.e. the sanctions imposed for the possession of illegal drugs. In fact, Portuguese policy-makers decided to drop all custodial sanctions for such an offense. Portuguese drug policy thus moved from authority to lenient authority. This category of lenient authority represents a style of regulation that remains

prohibitive in terms of individual freedoms but is inconsequential where those prohibitive rules are violated.

This pattern strongly contrasts with a style we refer to as punitive permissiveness. In this scenario, policy-makers only impose minor constraints on individual freedoms by granting individuals wide behavioral boundaries. Yet they also decide to make any misuse of these far-reaching freedoms highly consequential. They do so by adopting severe sanctions in cases where the few constraints are not complied with. Another example from the context of drug policy helps to illustrate the empirical relevance of this style. Specifically, Spain's drug regime throughout the 1980s was based on a regulatory style of punitive permissiveness. While individuals were allowed to possess cannabis and even heroin for personal use (wide behavioral boundaries), they faced severe sanctions of mandatory prison sentences if they carried more than could plausibly be considered to be intended for personal use (high consequentiality of rule violations). Punitive permissiveness thus refers to regulatory output that is permissive in the sense that it only introduces minor constraints on individual freedoms, but punitive in the sense that severe sanctions are imposed on anyone overstepping the defined boundaries.

Both drug policies – the Spanish throughout the 1980s and Portuguese after 2000 – could be described as “liberal” policies. However, this description would either cover up the existing differences evident in both policy regimes or require additional definitions of what the term “liberal” implies. Our conceptualization of regulatory styles captures the difference between both regimes directly. While the Portuguese style of lenient authority combines narrow behavioral boundaries with low sanctions for rule violations, the Spanish style of punitive permissiveness foresees relatively wide behavioral boundaries while punishing rule violations severely. Both systems are liberal, yet in very different ways. This difference finds expression in our concept of regulatory styles.

3. Measuring Styles of Regulation

This section proposes a way to measure regulatory output in terms of our two-dimensional concept. We start by presenting our approach to measuring the width of behavioral boundaries. These boundaries can be measured with varying degrees of complexity. In its simplest form, a measure of this concept could take a binary form and capture whether a certain behavior is prohibited (1) or not (0). Yet in most policy sectors, this crude distinction will fail to capture the essence of the legal provisions in place and will leave us blind to empirical variation between countries. Accordingly, we propose a hierarchical measure that differentiates between three aspects of a policy's behavioral boundaries. This measure relies on the assumption that

not all aspects of existing regulation reflect the same severity of governmental intervention. Scholars have to decide which aspects and how many aspects to include as well as how to order them according to the severity of intervention. In our illustration, we propose to differentiate between the general regulatory paradigm, additional personal requirements, and additional procedural boundaries.

On the first level, we capture the general approach, or paradigm, towards the object of regulation by distinguishing between prohibition, narrow permission, and wide permission. These categories capture whether policy-makers generally prohibit certain behavior or restrict it to specific circumstances. In the latter case, our measurement also incorporates how narrowly these circumstances are defined. Of course, especially the categories of wide and narrow permission can hardly be defined without a clearer understanding of a certain policy field under investigation. Nevertheless, it is possible to define general criteria to differentiate between both categories. In this regard, the decisive feature is whether the underlying approach is one that generally seeks to minimize certain activities or not. Does certain behavior, although not prohibited in general, constitute the exception (narrow permission) or the rule (wide permission)?

While this differentiation might already be sufficient for some purposes, the first level of measurement can be complemented with a second level that takes account of additional, more specific characteristics of the regulatory output. Specifically, we propose to include boundaries concerning characteristics of the policy addressees. After policymakers have defined their general approach towards a given behavior, they can define hurdles that individuals must overcome in order to engage in that behavior legally. Even if a state allows a certain conduct in principle, there are still many secondary adjustments it can impose in terms of personal eligibility. For instance, while most states permit the consumption of tobacco, they usually define age thresholds in order to prevent minors from smoking.

In case further refinement of measurement of the scope of behavioral constraint is required, the existing measure can be complemented by a third level. Here, we propose to capture whether regulatory output contains procedural constraints. Again, such measures can take various forms capturing different procedural aspects of the regulated behavior. Returning to the tobacco example from above, such procedural hurdles have recently materialized in the form of locational restrictions. Thus, even if smoking is allowed in principle and cigarettes can be obtained by every individual in compliance with the personal requirements, states can still limit individual freedoms to smoke by defining smoke-free areas in, for example, bars, gas stations, or hospitals.

Table 2 summarizes our measurement concept with the help of a generic example. In principle, the concept is guided by the assumption that the general approach to the regulation of the policy object is more fundamental than personal requirements defined for addressees of the regulation or mere procedural constraints. This assumption finds its expression in the values we assign to different alterations of the regulatory status quo. In other words, if a state changes its general approach on a given regulatory issue, this is reflected in greater shifts of the corresponding index value than a change on the subordinate levels. If, for example, a state moves from an approach of narrow permission with low personal and procedural hurdles towards prohibition, the corresponding value changes from 2.00 to 3.00. If, however, the state retains its narrowly permissive approach, but increases personal hurdles to medium, the value only changes from 2.00 to 2.33. If the state decides to tighten procedural rules in addition, the value changes from 2.33 to 2.50. Thus, fundamental shifts on level 1 are mirrored more strongly in the index value than changes on secondary or tertiary levels.

Table 2. *Generic example of measuring behavioral boundaries*

Level 1 General approach towards the object of regulation	Level 2 Personal constraints	Level 3 Procedural requirements	Category
Prohibition	n/a	n/a	3.00
Narrow permission	High	High	2.84
		Low	2.67
	Medium	High	2.50
		Low	2.33
	Low	High	2.17
		Low	2.00
Wide permission	High	High	1.84
		Low	1.67
	Medium	High	1.50
		Low	1.33
	Low	High	1.17
		Low	1.00

Next to this hierarchical conception of state interference with individual liberties, we measure the severity of sanctions imposed for such rule violations to capture the extent to which governments are willing to tolerate individual misconduct. Generally, prohibitive regulatory arrangements define a series of punishable offenses related to behavioral boundaries on all levels of measurement: Offenses can include violations of both personal and procedural

requirements. To reduce complexity and sharpen the analytical focus, we propose to focus on the sanctions for the most typical offense within a given area of regulation. Of course, what counts as a punishable offense is not necessarily constant across the different policy configurations. An activity that is legal in a situation of wide permission may become illegal if permission is narrowed down and vice versa. In such situations, we consider it the most practicable solution to capture the most typical offense in the respective general approach.

Table 3. *Generic example of measuring the consequentiality of noncompliance*

Basic punishment	Substitutability	Calibration	Additional fine	Category
Death/Life	n/a	n/a	n/a	15
Prison	Mandatory	High	Yes	14
			No	13
		Medium	Yes	12
			No	11
		Low	Yes	10
			No	9
	Substitutable (and/or)	High	n/a	8
		Medium	n/a	7
		Low	n/a	6
	Substitutable (or)	High	n/a	5
Medium		n/a	4	
Low		n/a	3	
Fine	n/a	n/a	n/a	2
Administrative	n/a	n/a	n/a	1
No sanction	n/a	n/a	n/a	0

For the technical implementation of the measurement, we propose an ordinal scale consisting of 16 categories (see Table 3). The most severe punishment for individual misconduct is the death penalty. We also include the possibility of a life sentence in this most extreme category. The ordering of the remaining categories is based on a range of assumptions. First, we generally conceive of a deprivation of liberty as a more severe sanction than of the imposition of a monetary fine, regardless of the length of the jail sentence or the amount of the fine. This assumption does not only make intuitive sense, there is also broad consensus in the criminological literature and scholars of penal policies that it is reasonable. As Lappi-Seppälä (2008, p. 321) notes: “Imprisonment has uncontested prominence as the principal and most

severe sanction in European and industrialized Western countries (with the unfortunate exception of the United States)”. Thus, we regard even a short prison sentence to be a more severe sanction than a high monetary fine. Secondly, we conceive of a monetary fine as being more severe than a purely administrative sanction, like the withdrawal of a license or the closure of an establishment. Thirdly, (penal) laws mention both the possibility of imposing a jail sentence and a fine or they prescribe jail sentences, which can be substituted for a fine. We generally consider the former more severe than the latter, regardless of the precise calibrations of the sentences. Fourthly, sanctioning provisions sometimes include “and/or” provisions as far as fines and imprisonment are concerned, leaving the ultimate decision of substitutability to the judge. We argue that it makes sense to assume that such types of penalties fall in between the mandatory and substitutable categories. Finally, there is a distinction made between long, medium, and short jail sentences in order to keep some of the information of the calibration of jail sentences but at the same time do justice to the need to reduce complexity. Thus, we conceive of a short mandatory jail sentence as a more severe punishment than a long jail sentence, which can be substituted for a monetary fine. The main challenge associated with this categorization rests with the definition of thresholds between short, medium and long jail sentences. Where the lines should be drawn between the respective categories is ultimately an empirical question, which cannot be answered without deeper knowledge of the regulatory area under study. In any case, the decision should be based on both theoretical considerations and empirical evidence. Accordingly, the sanctioning dimension runs from “no sanction” to “death penalty/life imprisonment”, differentiating between more finely grained penal categories in between.

If we combine both measures introduced above – the one for behavioral boundaries and the one for the consequentiality of noncompliance – we can place countries in a two-dimensional regulatory space within which the four ideal types are located at the corners. The following sections will illustrate why we think it is worthwhile to engage in this exercise. To do so, we illustrate that our approach helps us to improve the description of regulatory policy output by capturing differences we would have overlooked otherwise.

4. Improving Our Description of Regulatory Output: An Illustration

To make our two-dimensional measurement approach more accessible and to illustrate its advantages over one-dimensional approaches, this section focuses on the empirical example of handgun regulation in 12 European countries. The data used for this illustration were collected

in the context of the Comparative Analysis of Morality Policy Change (MORAPOL) project (Knill 2013).

We start this exercise with our measurement of behavioral boundaries for individuals interested in the possession of a handgun.¹ On the first level of these boundaries, we capture the general approach towards the object of handgun regulation: is the possession of this object completely prohibited (prohibition), is the right of possession granted to privileged citizens able to prove that they have a genuine need for it (narrow permission), or can handguns be possessed by anyone as long as authorities cannot prove that the person cannot be trusted (wide permission)?

This rather crude measure can be fine-tuned by adding another aspect of handgun regulation that reflects an additional and less severe intervention in individual freedoms than the general paradigms formulated on the first level. On this second level, we focus on constraints concerning the addressee of the regulation. Given that handguns are not prohibited as such, the question is whether there are any personal requirements a person should meet to be allowed to own a handgun. To demonstrate the flexibility of the measurement approach, we create a composite measure on this level. In the context of handgun regulation, second-level constraints can be interpreted as licensing requirements, i.e. the personal requirements a potential customer must fulfill in order to qualify for a gun purchase. Such personal constraints are not only relevant in systems of narrow permission but also in systems of wide permission. We thus construct a ten-point additive index capturing the height of the qualification hurdles a prospective handgun owner must overcome before being able to acquire a weapon.² The respective items generally refer to the applicant's maturity (age threshold), health (mental and physical), character (criminal record, addiction to drugs), and technical capability (the need to provide a safety training or similar technical tests). Two additional items measure whether the applicant must prove regular employment and/or income and whether third party character references or the consent of cohabitants must be produced.

If scholars feel that the measure of behavior boundaries should be even more fine-grained to capture relevant differences and changes, they can include the relevant aspect of regulation on an additional third level in the hierarchy. In our example, we do so by including additional procedural constraints of individual liberties relevant in the context of handgun regulation. Even when the general policy paradigm allows for the possession of a handgun, and

¹ See Knill et al. (2015) for the application of the measurement concept to a broad range of sectors including the regulation of prostitution, euthanasia, abortion, gambling, homosexuality, drugs, and pornography

² This relates to possession licenses, not to carriage licenses.

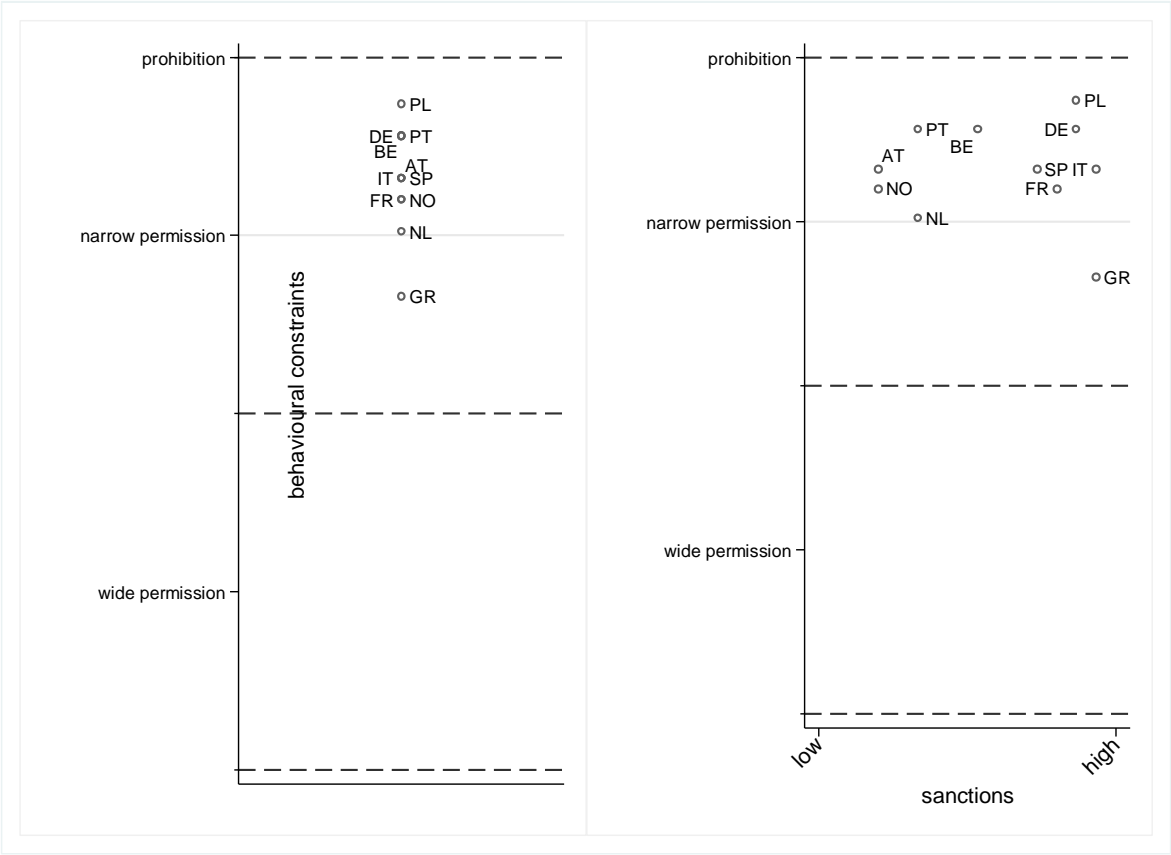
after individuals have cleared all of the relevant personal requirements, possession of handguns is still tied to further procedural requirements in the form of safe storage provisions. We distinguish between no, basic, and advanced storage requirements. For the purpose of this illustration, we do not engage in a more detailed discussion of the indicators here. Table 4 summarizes the measure.

Table 4. *Indicators used on the three levels of state intervention in handgun regulation*

Level 1 General regulatory approach	Level 2 Personal requirements	Level 3 Procedural requirements
Prohibition	n/a	n/a
Privilege Permission	Age threshold Mental health Physical health Criminal history Drug addiction Practical or theoretical exam Proof of employment/income Third party reference(s)	Safe storage

Taken together, this yields an ordinal scale of behavioral constraints of 67 ordinal categories. As outlined above, changes in the behavioral boundaries on the first level lead to a larger shift than changes on the second level. A change on the second level is in turn more consequential for the index value than a change on the third level. To assess the consequentiality of noncompliance in the context of handgun regulation, we focus on the most relevant criminal offense: the possession of a handgun while lacking the authority to do so. Depending on the general approach towards the regulatory object, this can simply be any possession of a handgun (prohibition), or the possession of a handgun without the respective authorization (narrow permission and wide permission). Furthermore, we consider any prison sentence below one year as short, any sentence between one and three years as medium, and any sentence above three years as long. While any classification in this regard is somewhat arbitrary, we choose these categories so as to make the most out of our two-dimensional measurement. This means that we choose values that ensure the ability to observe a certain degree of empirical variation.

Figure 1. *Illustration of cross-national variation*



One advantage of our conceptualization relying on both of these dimensions can be shown with the help of Figure 1. This figure combines two plots. In the left plot, we solely rely on the measure of behavioral constraints in assessing the regulation of handguns. The plot suggests that there are only minor differences regarding handgun regulation in our sample of countries. Greece (GR) is somewhat of an exception with slightly weaker constraints. Yet all countries in the sample foster a general regulatory approach of narrow permission. There are several differences in terms of personal and procedural constraints within this approach. However, Germany (DE) and Portugal (PT) as well as France (FR) and Norway (NO) seem to maintain identical handgun Table 4. Indicators used on the three levels of state intervention in handgun regulation policies. While this picture might be good enough for some purposes, the right-hand plot in Figure 1 indicates how our approach can improve our assessment of regulatory output. Specifically, the right-hand plot shows that particularly countries previously perceived to maintain identical handgun regulations in fact uphold quite different regulations when the consequentiality of noncompliance is taken into account. While Portugal and Germany constrain the legal possession of handguns in a fairly similar way, they differ greatly

in the degree of sanctions applying in case of illegal possession of handguns. German policy-makers have equipped judges with the ability to choose from a much more severe set of sanctions than Portuguese policy-makers have. The same holds true for French policy-makers when compared to Norwegian policymakers. These differences were covered up in the one-dimensional assessment of handgun regulation. Uncovering such additional variation might not be necessary for all purposes, but it can be helpful in some circumstances. If we choose our analytical research question based on the left-hand-side description, we might be tempted to ask why Austria and Italy were equally restrictive in terms of handgun regulation despite their different gun cultures. If we choose the analytical research question based on the right-hand-side description, we would not find their handgun regulations to be strikingly similar and would choose another theoretical puzzle.

Figure 2. *Illustration of temporal variation*

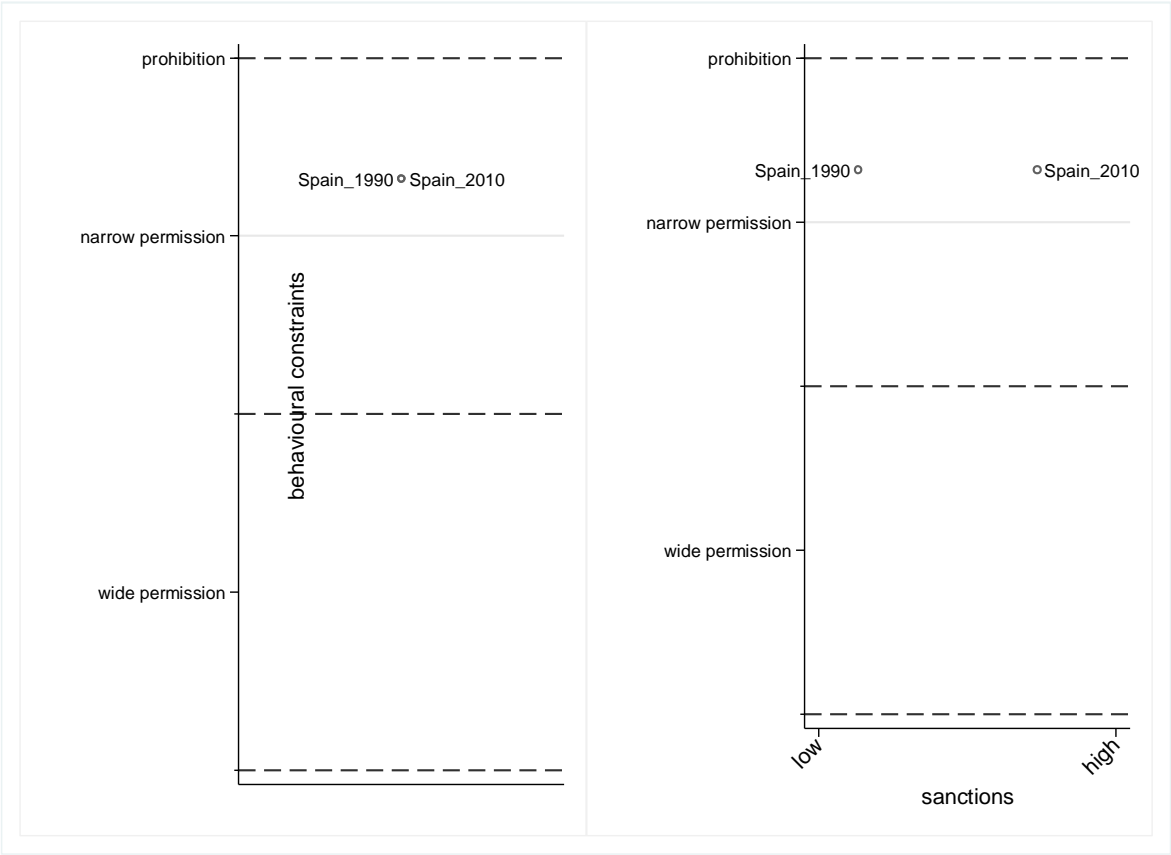
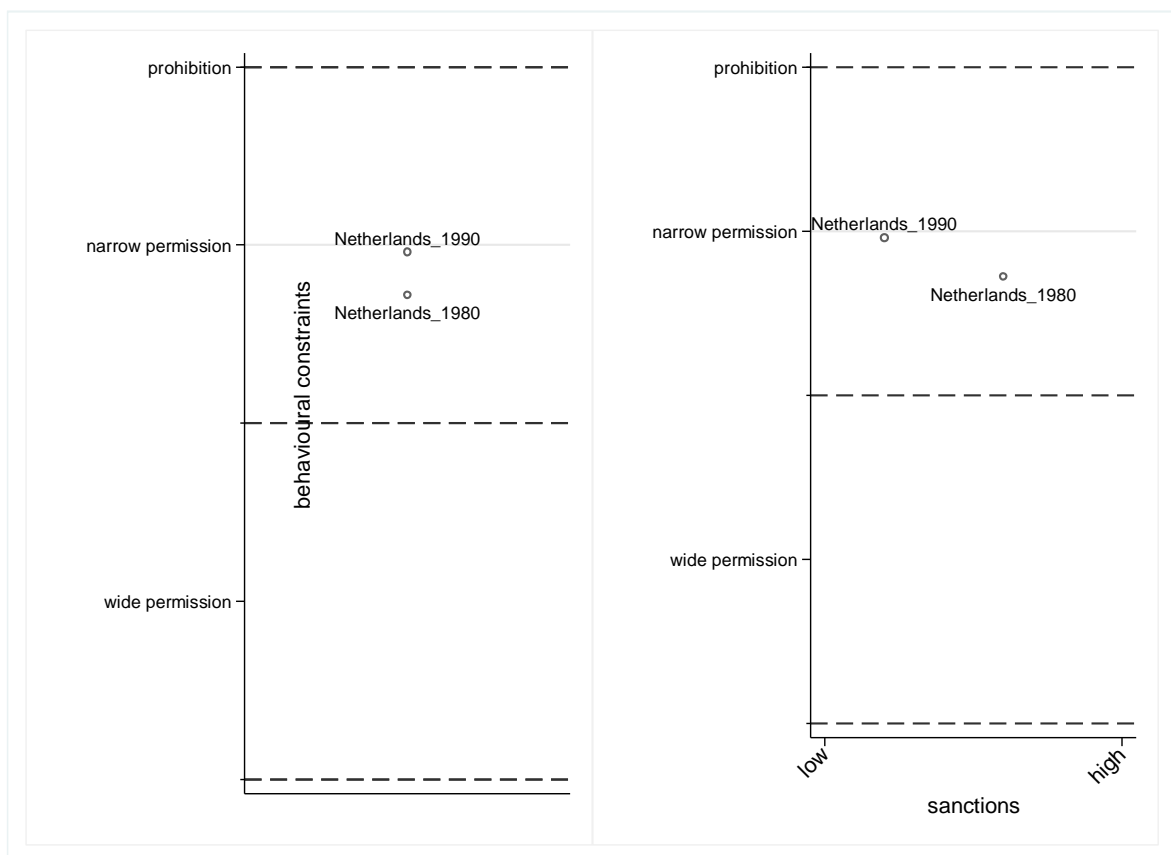


Figure 2 highlights the advantages of our approach for the assessment of regulatory change. Again, the left-hand plot in Figure 2 represents a one-dimensional assessment of change in handgun regulation as captured by behavioral constraints. Based on this one-dimensional assessment, handgun regulation in Spain did not change between 1990 and 2000. This assessment changes completely when looking at the plot located at the right-hand side in Figure 2. This two-dimensional plot shows that persistence in Spain only concerned the behavioral constraints on handgun possession. Yet the consequentiality of illegal handgun possession was greatly enhanced. Our explanations of change in handgun regulation will greatly depend on whether we try to explain the left-hand or the right-hand plot in Figure 2. Is the analytical challenge to explain persistence (left-hand plot) or to explain regulatory change (right-hand plot)?

Figure 3. *Illustration of cross-national and temporal variation*



A similar point can be made with the help of Figure 3. In this case, the one-dimensional plot on the left-hand side in Figure 3 indicates that the Netherlands changed its handgun regulations between 1980 and 1990. Specifically, the Dutch seem to have introduced more

restrictive handgun regulations as they have increased the constraints on handgun possession. In case our goal was to explain change in handgun regulation, we would look for explanations able to account for the introduction of stricter rules in the Netherlands. However, if we relied on the picture drawn by the right-hand plot in Figure 3 the analytical challenge would be different. Specifically, the right-hand plot in Figure 3 shows that while the Netherlands has enhanced constraints on legal handgun possession, it has relaxed the sanctions applying in case of illegal handgun possession. In our terms, the Netherlands moved towards a style of lenient authority regarding handgun regulation. While the explanation of this shift does not necessarily have to depend on whether we rely on the one-dimensional or the two-dimensional description, it certainly can. This is because the simpler one-dimensional description might hide relevant actor constellations and bargaining dynamics underlying the observed regulatory change.

In sum, the comparisons above highlight how our conceptualization of different styles of regulatory output helps to uncover empirical variation that would be lost otherwise. This improvement is accomplished without adding excessive complexity. At the same time, we should emphasize that we conceive of this scheme as an analytical tool for uncovering the direction of regulatory changes rather than exactly measuring regulatory outputs in absolute terms. In other words, we should be careful when trying to classify individual countries into our fourfold conception of regulatory styles without an external point of reference. The handgun example above shows that it is often futile to attribute regulatory output to one of our four ideal-typical categories. This will only be fruitful for extreme cases with extreme values on both dimensions of our measures. Instead, the ideal types are always helpful in determining shifts in the direction of regulatory outputs. Thus, our concept is particularly useful for studies interested in sophisticated descriptions of patterns of regulatory change and convergence.

5. Implications for Explaining Regulatory Change

A two-dimensional conception of regulatory output can thus improve our description of regulatory change. At the same time, however, such a conception does also have certain implications for our attempts to explain the phenomenon. The main challenge in this regard presents itself in the following way. We need to clarify the conditions under which regulatory styles shift along the diagonal axes. Which factors facilitate coordinated reform efforts leading to simultaneous adjustments of both behavioral constraints and sanctions for noncompliance? Which factors lead to one-dimensional shifts (vertical or horizontal)? Secondly, we have to answer when and why regulatory change reflects a compromise between the two dimensions. On the one hand, such a compromise can be reflected by regulatory shifts towards a style of

lenient authority. Here, narrow behavioral boundaries are combined with low consequentiality of noncompliance. On the other hand, such compromises are reflected by shifts towards a style of punitive permissiveness – where a reduction of behavioral constraints is combined with an increasing consequentiality of rule violations. When and why do policy-makers turn to such compromises? We argue that two conditions can stand in the way of two-dimensional regulatory changes: goal ambiguities and procedural differences.

Goal Ambiguities Can Impede Two-Dimensional Shifts

Whether regulatory shifts occur simultaneously on both dimensions depends on whether the goals of reform proponents align on both dimensions. Quite intuitively, if the actor coalition pushing for reform wants to change behavioral constraints and the consequentiality of violations of these constraints, regulatory output is more likely to shift along both dimensions (if the coalition is successful in adopting a reform) than when the proponents of reform only want to change one dimension. The ambiguity of policy goals is one factor that might impede this willingness of actor coalitions to push for such diagonal change of regulation.

Take, for example, the German regulation of female circumcision practiced by some cultures for ritual reasons. In the spring of 2013, opposition parties tried to push for a reform of the current regulation of female circumcision. While this practice was already illegal in Germany, it was not illegal to conduct such a circumcision abroad (while on vacation) and then return to Germany. This could be changed by including this practice in §5 of the German penal code, summarizing offenses punishable in Germany that were committed abroad. The Social Democrats and the Greens, as the two main opposition parties, jointly pushed for this increase in behavioral constraints. While they were united on this dimension, they were divided on the question about the “right” consequences for noncompliance with the behavioral constraints. The Green party demanded that the sanctions applying to such violations be increased to a minimum of three years’ imprisonment (<http://dip21.bundestag.de/dip21/btd/17/047/1704759.pdf>). The Social Democrats objected that while a strict punishment was indeed the right way to go, setting a prison sentence of a minimum of three years would automatically lead to the deportation of the offender and their family. In case of such offenses, girls would thus not only suffer from circumcision but also from deportation. The actual goal of protecting young girls would therefore be undermined by such a severe sentence. In consequence, the Social Democrats pushed for lower minimal sanctions of one year instead of three years (<http://dip21.bundestag.de/dip21/btd/17/123/1712374.pdf>), joining the proposals of the

governing coalition consisting of the Christian Democrats and the Liberal party (<http://dip21.bundestag.de/dip21/btd/17/137/1713707.pdf>). The example shows how goal ambiguities can lead to actor heterogeneity. Due to such goal ambiguities, actors forming a coalition for change on the question of how to constrain behavior can be separated on the question of how to sanction the disrespect of these constraints. This will affect the probability of two-dimensional change.

Yet even if proponents of reform want to change both dimensions of regulation, this willingness does not necessarily translate into two-dimensional shifts. One additional factor that can impede such two-dimensional shifts is procedural differences.

Procedural Differences Can Impede Two-Dimensional Shifts

Actor coalitions pushing for two-dimensional regulatory change are not always able to change both dimensions simultaneously. Procedural differences can impede this ability to adopt diagonal changes. Specifically, the institutional environment within which policy-makers have to act when they want to adjust behavioral boundaries might not be the same institutional environment as when they try to adjust the consequentiality of noncompliance. Legislative procedures and the relevance of certain veto players might be different for each dimension. These factors are likely to affect the direction of regulatory change.

Let us first consider a situation without procedural differences, i.e. a situation in which the procedural requirements to change rules on behavioral constraints are identical to the procedural requirements to change sanctions. An example for such a situation is the German weapons law (Waffengesetz), which is one law consisting of a first part delineating boundaries for individual behavior (in particular the licensing process) and a second part specifying penal sanctions for rule violations. Changing either element of this law (constraints or sanctions) imposes identical procedural requirements. Specifically, such changes require a simple majority in the first chamber (Bundestag) and the second chamber (Bundesrat). This implies that the regulation of weapons takes place under a common legislative framework and the specification of sanctions is neither “outsourced” to the penal code nor delegated to other (sub-national) levels of government. Any group of actors willing to change both dimensions of the weapons law and actually able to change one dimension should thus also be able to change the other dimension. If regulatory change occurs, this change is more likely to reflect a diagonal shift than when procedural differences existed between the two dimensions rendering it much more difficult to change one of them.

To see how the existence of procedural differences can complicate diagonal regulatory shifts, a look at German sports betting regulation can be informative. In this context, the competences to define behavioral boundaries and the consequentiality of noncompliance are spread across different levels of government. Specifically, the question of what kinds of sports betting are legal and illegal falls within the competence of the regional governments (Länder). They decide whether citizens are kept from placing sports bets by prohibiting the activity completely, whether citizens can legally engage in sports betting through a (regional) monopolist, or whether they can legally access sports bets offered by private operators located in Germany and abroad.³ Currently, the Länder define these behavioral boundaries through an Interstate Treaty (Glücksspielstaatsvertrag) which they negotiate among each other. While this treaty defines behavioral constraints, it does not define the sanctions imposed on participants in illegal sports betting. These sanctions are defined at the federal level. Specifically, paragraph 285 of the German penal code defines that the participation in illegal gambling is sanctioned with six months of imprisonment. This prison sentence can be substituted with a fine. The institutional environment within which behavioral constraints in Germany in the context of sports betting are defined thus differs greatly from the institutional environment within which the consequentiality of noncompliance is defined. The group of actors which is able to adopt a reform of behavioral constraints is thus not automatically able to also change the sanctioning dimension. These procedural differences make the coordinated diagonal shift of sports betting regulation unlikely or at least more difficult than in other policy sectors. From this perspective, it is thus not surprising that the latest reforms of sports betting regulation in Germany have shifted regulatory output in a vertical direction and not in a diagonal direction.⁴

6. Conclusion

Balancing the protection of individual liberties and collective intervention for the sake of the public good constitutes a fundamental challenge for modern states. The ability of any theory to explain shifts in this balancing process crucially depends on what we perceive these shifts to be. The need for thorough conceptual tools is what motivated this paper.

³ This option is usually more attractive than bets offered by state monopolists because private operators are able to offer much better odds.

⁴ Specifically, behavioral constraints have been relaxed since the former monopoly was abolished and citizens were granted legal access to 20 licensed private operators of sports bets while the sanctions for participation in illegal sports betting (i.e. participation in bets offered by operators other than the 20 licensed operators) were kept at the same level.

Essentially, the paper is structured into two main parts. In the first part, we presented our conceptual approach. In the second, theoretical, part, we discussed under what conditions two-dimensional regulatory shifts become more or less likely.

Conceptually, we presented a measurement scheme capturing the degree to which governments interfere with individual liberties across different fields of regulation. Specifically, we proposed a two-dimensional concept taking account of (a) the degree of behavioral restrictions by rules and (b) the level of sanctions in case of rule deviations. This distinction reveals four styles of regulatory outputs: authority, lenient authority, punitive permissiveness, and permissiveness. We have demonstrated that this scheme offers a highly differentiated assessment of regulatory change and, in particular, sheds light on dimensions that might otherwise be overlooked, hence avoiding potentially misleading conclusions with regard to the cross-national similarity of regulatory approaches.

We consider our contribution a first step towards improving our understanding of regulatory change and, in particular, as a tool for identifying and comparing changes in regulatory styles. Thus, we are well aware of the fact that our concept focuses on a specific dimension of public regulation, namely the balance between individual rights and collective goals. While this dimension is certainly crucial, our approach at the same time is not sensible to other dimensions that might be of equal relevance, such as, for instance, issues of social equality.

Moreover, we should emphasize that we restricted our analysis to regulatory outputs, hence excluding the dimensions of policy outcomes and policy impacts. A systematic integration of the implementation stage into our analysis constitutes an important aspect that should be addressed in future research. In this context, especially the link between different regulatory styles and implementation effectiveness might be a promising research avenue.

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